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8th Meeting of the Ecosystem Approach Coordination Group (EcAp CG)

Videoconference, 9 September 2021

Report of the 8th Meeting of the Ecosystem Approach Coordination Group

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Table of Contents

	Pages
Report of the Meeting	1-7
Annex 1 List of Participants	
Annex 2 Agenda of the Meeting	
Annex 3 Conclusions and Recommendations	
<i>Annexes to the Conclusions and Recommendations</i>	
Annex I EcAp governance structure	
Annex II 2023 MED QSR methodology, outline, structure and contents	
Annex III 2023 MED QSR Communication and Visibility Strategy	
Annex IV 2021 Baseline Values and Threshold Values for IMAP Common Indicator 22	
Annex V Revised guidance fact sheets for the IMAP Common Indicator 6, Non-Indigenous Species	
Annex VI IMAP Data Policy	

Introduction

1. In accordance with the UNEP/MAP Programme of Work 2020-2021 adopted by 21st Ordinary Meeting of the Contracting Parties to the Barcelona Convention and its Protocols, Naples, Italy 2-5 December 2019, the 8th Meeting of the Ecosystem Approach Coordination Group (EcAp CG) was held on 9 September 2021, via videoconference.

Participation

2. The following Contracting Parties to the Barcelona Convention were represented at the Meeting: Albania, Bosnia and Herzegovina, Croatia, Cyprus, Egypt, European Union, France, Greece, Israel, Italy, Malta, Montenegro, Morocco, Slovenia, Spain, Tunisia, and Turkey.

3. The UNEP/MAP – Barcelona Convention Secretariat was represented, by its Coordinating Unit, the Mediterranean Pollution Assessment and Control Programme (MED POL), the Priority Actions Programme Regional Activity Centre (PAP/RAC), the Specially Protected Areas Regional Activity Centre (SPA/RAC), the Plan Bleu Regional Activity Centre (PB/RAC), the Regional Activity Centre for Information and Communication (INFO/RAC) and the Regional Marine Pollution Emergency Response Centre for the Mediterranean Sea (REMPEC).

4. The following non-governmental organizations and other institutions were also represented as observers: the Agreement on the Conservation of Cetaceans in the Black Sea, Mediterranean Sea and Contiguous Atlantic Area (ACCOBAMS); Association de la Continuité des Generations (ACG); Blue World Institute of Marine Research and Conservation (BlueWorld); Center for Energy, Environment and Resources (CENER21), Centre International de Droit Comparé de l'Environnement (CIDCE); European Topic Centre – University of Malaga, Hellenic Marine Environment Protection Association (HELMEPA); Marevivo; Mediterranean Association to Save the Sea Turtles (MEDASSET); Mediterranean Conservation Society (MCS); Mediterranean Information Office for Environment, Culture and Sustainable Development (MIO-ECSDE); Mohammed VI Foundation For Environmental Protection; OceanCare; Surfrider Foundation Europe; Union for the Mediterranean (UFM); United Nations Economic and Social Commission for Western Asia (UN-ESCWA); and Youth Love Egypt Foundation (YLF).

5. The full list of participants is attached as Annex 1 to this report.

Agenda Item 1: Opening of the Meeting

6. The Meeting was opened at 10:30 a.m. on 9 September 2020 by Ms. Tatjana Hema, Coordinator, UNEP/MAP-Barcelona Convention.

7. The UNEP/MAP Coordinator welcomed the participants. In her opening statement she recalled that the Ecosystem Approach in the Mediterranean has been a fundamental guiding principle underpinning the MAP Programme of Work and the implementation of the Barcelona Convention and its Protocols. Good progress is being made collectively to realize the ambitious vision that was agreed in 2008 and the Mediterranean ecosystem approach has contributed to commitments at various scales; national, sub-regional, regional and global. She pointed out that the implementation of EcAp Roadmap is an essential element in the new MAP MTS 2022-2027 with several regional policies fully streamlining EcAp, in synergy with relevant global and regional work as well as the UN Decade for Ocean Science and UNEP Regional Seas on monitoring and assessment of the marine and coastal environment. The Coordinator also referred to the need to further strength Science-Policy Interface (SPI) for IMAP implementation.

Agenda Item 2: Organizational Matters

UNEP/MED WG.514/1; UNEP/MED WG.514/2; UNEP/MED WG.514/Inf.1

a) Rules of Procedure

8. The Meeting agreed that the rules of procedure for Meetings and conferences of the Contracting Parties to the Convention for the Protection of the Environment and the Coastal Region of the Mediterranean and its Protocols (UNEP/IG.43/6, Annex XI) would apply *mutatis mutandis* to their deliberations.

b) Election of officers

9. In accordance with rule 20 of the Rules of Procedure for meetings and conferences of the Contracting Parties, the Meeting elected its officers, as follows:

- President: Mme. Laure Ducommun, France
- Vice-President: Mme. Nassira Rheyati, Morocco
- Vice-President: Mr. Mohamed Sghaier Ben Jeddou, Tunisia
- Vice-President: Mr. Luke Tabone, Malta
- Rapporteur: Ms. Klodiana Marika, Albania

c) Adoption of the Agenda

10. The UNEP/MAP Coordinator gave an overview of the Annotated Agenda and timetable. The Meeting adopted its agenda on the basis of the Provisional Agenda and Provisional Annotated Agenda, including the proposed timetable, circulated in documents UNEP/MED WG.514/1 and UNEP/MED WG.514/12, respectively.

11. The agenda is attached as Annex 2 to the present report.

d) Organization of Work

12. The discussions were held in line with the agenda. Simultaneous interpretation in English and French was provided during the Meeting.

Agenda Item 3: State of Play in the Implementation of the Ecosystem Approach Roadmap

UNEP/MED WG.514/3; UNEP/MED WG.514/Inf.3; UNEP/MED WG.514/Inf.4; UNEP/MED WG.514/Inf.5; UNEP/MED WG.514/Inf.6; UNEP/MED WG.514/Inf.15

13. The UNEP/MAP Coordinator presented Working Document UNEP/MED WG.514/3 on the status of implementation of the Ecosystem Approach Roadmap and highlighted in particular the progress made during the 2020-2021 biennium on the Roadmap's seven steps.

14. Based on the experience acquired since the adoption of the EcAp governance structure, she also presented some proposals for strengthening its governance and invited the Meeting to engage in an active exchange of ideas to further guide the Secretariat's work in this direction.

15. A member of the EcAp CG thanked the Secretariat for presenting progress in the EcAp Roadmap steps in a clear vision for all ongoing actions towards GES in the Mediterranean. It was noted that a number of steps were still under development and progress needed to be ensured for all Ecological Objectives, particularly EO4 and EO6 on deep-sea. The Secretariat was invited to collaborate with relevant partners and generate a roadmap for the development of a list of common indicators, the monitoring and assessment specifics of marine food web (EO4) and sea floor integrity (EO6).

16. Several members of the EcAp CG expressed support for the proposal to strengthen governance and to delegate the responsibilities of CORGEST to CORMON. It was recommended that CORESA could meet on an *ad hoc* basis, to avoid extra or duplicate work. It was stressed that CORMONs should further be strengthened as it is a key group in the EcAp and 2023 MED QSR processes. The added value of the informal Online Working

Groups (OWG) was recognized and OWGs should support the CORMONs, for example developing technical guidelines. The mandates of all the different bodies need to be clearly defined. The Meeting agreed on the need for holding short, annual, online meetings of the EcAp CG.

17. The UNEP/MAP Coordinator acknowledged the comments received and confirmed that based on these discussions, the Secretariat's proposal will be adjusted accordingly for recommending a proposal to MAP Focal Points of an up-to-date structure of the EcAp Governance mechanism.

18. The Meeting's final conclusions related to this agenda item are presented in Annex 3 of this report.

Agenda Item 4: State of Play in the Implementation of the 2023 MED QSR Roadmap

UNEP/MED WG.514/4; UNEP/MED WG.514/Inf.7. UNEP/MED WG.514/Inf.8

19. The QSR Programme Management Officer, Ms. Joanne Foden, presented the document UNEP/MED WG.514/4 "Implementation of the 2023 MED QSR Roadmap", with information on the progress achieved in 2020 in relation to the implementation of the 2023 MED QSR Roadmap, structured around the Roadmap's main processes and milestones. Through this presentation, the Meeting was also informed on the way forward to 2023 MED QSR, including deadlines of output delivery, as well as the 2023 MED QSR Operational Plan 2020-2023 with concrete activities per Milestone/Output of the 2023 MED QSR Roadmap, which is supported by the UNEP/MAP Programme of Work and externally funded Projects.

20. The Secretariat was thanked for the detailed document. The members of EcAp CG embarked on a discussion making several suggestions including: the need for the Roadmap to be reviewed and discussed based on work being carried out by the CORMONs clusters and the RACs; to keep the Roadmap updated as a living document; the necessity of progress in EO4 and EO6, which should be communicated to the RACs; strengthening the technical links between hydrography (EO1) and habitats (EO6); and regularly updating the calendar of key meetings and to integrate it with the calendar of meetings of the OWGs.

21. The UNEP/MAP Coordinator stressed the need for all Contracting Parties to submit their data in accordance with agreed timelines, to achieve a high quality QSR as mandated by COP 20 and COP 21.

22. The representative of Turkey informed the Meeting that it is fully committed to conduct monitoring and assessment studies within the framework of MAP/Barcelona Convention. But as it is known, Contracting Parties of the Barcelona Convention are composed together with EU Member States and non-EU Member States. Even though Turkey does not have an objection to providing a common strategy to enhance effective national and regional monitoring programmes, Turkey has reservations to implement a common strategy in synergy with MSFD. As a non-EU Member State, Turkey is not bound by the regulations, definitions, and mappings under MSFD and does not recognize designations of the existing "monitoring-assessment areas/scales" corresponding with marine reporting units (MRUs) of the European Union. Also, Article 6 of the MSFD regulates that "Member States shall, within each marine region or sub-region, make every effort, using relevant international forums, including mechanisms and structures of Regional Sea Conventions, to coordinate their actions with third countries having sovereignty or jurisdiction over waters in the same marine region or sub-region.

23. The Meeting's final conclusions related to this agenda item are presented in Annex 3 of this report.

Agenda Item 5: 2023 MED QSR Development Approach and Structure, and Communication and Visibility Strategy

UNEP/MED WG.514/5; UNEP/MED WG.514/6

24. The QSR Programme Management Officer presented Working Document UNEP/MED WG.514/05 "2023 MED QSR methodology, outline, structure and contents", which will be the basis for preparing and delivering the 2023 MED QSR according to the 2023 MED QSR Roadmap and Operational Implementation Plan. The Officer informed that there will be other opportunities to expand on the methods, outline, structure, and content of the QSR.

25. A member of EcAp CG thanked the Secretariat for the update and overview and considered the proposal to be comprehensive and well organized; however, it will be a challenge to deliver. One EcAp member speaking, on behalf of a group of countries, highlighted that pressure from physical disturbance to seafloor habitats (EO6) from bottom fishing was absent. Noting that EO6 needs further development, the EcAp CG member suggested including this significant pressure in the 2023 MED QSR. A potential source of data was ICES recently published work (Advice eu.2021.08) on the distribution of fishing pressure, including a preliminary compilation of data for the Mediterranean that was likely to be developed in the coming year in collaboration with Mediterranean partners. EMODnet Chemistry is a source of chemicals and contaminants data with a global dataset that covers the Mediterranean. The suitability of these data sources will need to be checked.

26. Two members of EcAp CG made further proposals. The DPSIR elements for the integrated assessment of each EO (sub)chapter should be detailed in section 2.2.1. The EO1 chapter should be sub-divided by each biodiversity component, marine mammals, seabirds, benthic habitats, etc. It is important to pursue and strengthen links to other similar initiatives on the methods, and there should be clear links to the Common Indicators factsheets and the methods used for their respective assessments. Other potential data sources to be added to the document are EU-funded projects, such as NEA-PANACEA (OSPAR) and ABIOMMED (HCMR).

27. Thanking all speakers for their suggestions, the Coordinator responded that DPSIR is the overall vision and therefore fully taken into account in the 2023 MED QSR. On EO6, the Coordinator responded that it was difficult to commit to including EO6 because it was not fully developed in the process yet and there are planned activities in the next biennium. This is a sensitive issue, and the assessments will be conducted in close cooperation with GFCM and other regional Partners. EMODnet was very active in the first Partners meeting and is already working with MED POL. Partners will be fully involved, but all data sources used will be peer-reviewed and ultimately it is for the CORMON to advise. The Coordinator confirmed that the intention is to have robust assessments at the Common Indicator level, including for individual species where appropriate, and where feasible at EO level and per cluster. Furthermore, noise might be included, depending on the availability of scientific data.

28. As a conclusion, the Coordinator recommended that EcAp CG could adopt the document, allowing scope for adjustment and flexibility to accommodate changes as the 2023 MED QSR progresses, and the annual meeting of the EcAp CG will enable such ongoing adjustments.

29. The QSR Programme Management Officer presented Working Document UNEP/MED WG.514/06 “2023 MED QSR Communication and Visibility Strategy”, which was developed in 2021 by the UNEP/MAP Secretariat following the 2023 MED QSR Roadmap and as part of the EU-funded EcAp MED III Project. The Programme Officer explained the priority activities and opportunities for wide dissemination and high visibility of the 2023 MED QSR at regional and global levels to promote the findings of the 2023 MED QSR on the status of the Mediterranean Sea and Coast. The 2023 MED QSR can support evidence-based marine and coastal management, and advocate policies and measures based on this enhanced knowledge, to underpin efforts aimed at achieving the Good Environmental Status (GES) in the Mediterranean.

30. A member of EcAp CG proposed adding projects to the target groups, in line with the themes that have been suggested and to also add the scientific community. The EcAp CG member also proposed that following the end of the preparation of 2023 MED QSR, to hold a joint workshop with policy makers, EU and regional organizations to discuss how regional strategies could be harmonized.

31. In response the Coordinator noted the intention is to provide overall directions in terms of communication and not detailing concrete activities which may be included in workplans. The Coordinator also acknowledged the importance of synergies and enhancement of harmonization with other Regional Seas Conventions, and the possible added value of a conference of the Conventions presenting their reports that are being delivered in parallel, recommending that this could be captured in the programme of work rather than in this document.

32. The Meeting’s final conclusions related to these agenda items are presented in Annex 3 of this report.

Agenda Item 6: Technical Guiding Elements on IMAP Implementation: Assessment Criteria and Scales, Thresholds, Baseline Values

UNEP/MED WG.514/7; UNEP/MED WG.514/8; UNEP/MED WG.514/9; UNEP/MED WG.514/Inf.10; UNEP/MED WG.514/Inf.9; UNEP/MED WG.514/Inf.10; UNEP/MED WG.514/Inf.11; UNEP/MED WG.514/Inf.12; UNEP/MED WG.514/Inf.13; UNEP/MED WG.514/Inf.14

33. The UNEP/MAP Project Manager, Christos Ioakeimidis, presented Working Document UNEP/MED WG.514/07 on updated Baseline Values (BV) and proposed Threshold Values (TV) for IMAP beach litter Common Indicator 22, further to a commonly agreed methodology.

34. Following discussions, it was agreed to endorse the proposed BV and TV for Common Indicator 22 and recommend its submission to COP22 for adoption, for their use for the purpose of 2023 MED QSR as appropriate, under the guidance of CORMON on Marine Litter.

35. The MED POL Programme Monitoring and Assessment Officer, Jelena Knezevic, presented the Working Document on Background (Assessment) Concentrations (BC/BAC) for Common Indicator 17 and an upgraded approach for Environmental Assessment Criteria (EAC) for IMAP Common Indicators 17, 18 and 20 (UNEP/MED WG.514/8, supported by UNEP/MED WG.514/Inf.9). The recommendation is to use these as a basis towards development and testing of the methodologies for GES assessment related to EO9 and EO10. The MED POL Officer highlighted that the Meetings of CORMON on Pollution Monitoring (26-28 April 2021) considered documents related to assessment criteria for nutrients and contaminants are of an evolving nature and invited their use as a basis for progressing towards development and testing of the methodologies for GES assessment related to the EO5 and EO9. While work on their further elaboration would continue, the Meeting of MED POL Focal Points (9 July 2021) approved the submission of these documents to EcAp CG. The MED POL Officer noted that progress in preparation of the inputs for 2023 MED QSR will depend on new and other pending data reporting from the Contracting Parties into IMAP Info System, and provision of their support through the OWG on Contaminants regarding testing of proposed values of the assessment criteria for application of GES assessment methodology.

36. The EcAp CG member for Spain commented that total Organic Carbon (TOC) can be interesting to characterize the nature of sediments, but the TOC normalization is only appropriate if a significant positive correlation exists between the organic contaminant concentration and TOC. She also informed EcAp CG that based on recent studies normalization is not useful for Spanish Mediterranean areas. The EcAp CG member provided a detailed written explanation and proposed including it in section 2.2.2 of the document UNEP/MED WG.514/8.

37. The MED POL Officer responded that normalization of organic compounds concentrations to TOC was recommended (UNEP(DEPI)/MED WG365/Inf.8), and in related IMAP Guidance Factsheets and Data Dictionaries for IMAP Common Indicator 17. However, the normalization to TOC should be used cautiously and only if field data support it. When analyzing GES for the Mediterranean, it will be necessary to decide on how to accommodate areas where such normalization is not appropriate. Following the discussion of the Meeting of CORMON on Pollution Monitoring, a footnote had been added in the document UNEP/MED WG.509/12 explaining this. Furthermore, an additional footnote will be added to explain specific conditions in the marine waters of Spain.

38. The EcAp CG member for France thanked the Secretariat for the presentation on methods for setting new and updated existing assessment criteria for contaminants. However, the EcAp CG member felt that the document is not yet ready to be endorsed because a number of comments raised in the CORMON and OWG. and OGW were not yet reflected in this version.

39. The UNEP/MAP Coordinator expressed understanding for the view that the documents cannot be endorsed by the present Meeting. However, she explained that based on the way the Secretariat works, it was not possible to change the documents endorsed by CORMON in such short deadlines since May 2021. The intention of the Secretariat was to give the opportunity to MED POL FP and EcAp CG to review these documents for their endorsement considering their evolving nature and the need to start using them for the QSR

on an initial basis. The documents themselves would be revised accordingly for the forthcoming CORMON meeting in 2022 to include comments received from previous CORMONs, MED POL FP, OWG and EcAp CG.

40. The MED POL Officer presented the Working Document on assessment criteria methodology for IMAP Common Indicator 13: pilot application in Adriatic Sub-region (UNEP/MED WG.514/9, supported by UNEP/MED WG.514/Inf.10), as a basis for progressing towards setting the assessment criteria for DIN and TP. Progress will depend on new data reporting by the Contracting Parties into IMAP Info System and provision of the support through the OWG on Eutrophication regarding testing of proposed methodological approaches for setting reference and boundary values, including relevant statistical approaches, as suitable for specific areas in Mediterranean sub-regions.

41. The Meeting took note of the documents related to assessment criteria for nutrients and contaminants, with the understanding there is a validation process with the CORMON on Pollution Monitoring and on that understanding, to use the present documents as a basis for progressing towards setting the assessment criteria for nutrients and upgrading the assessment criteria for contaminants, to enable proceeding for the purpose of preparing the inputs for 2023 MED QSR. The Meeting encouraged further work by the OWG with MED POL under the direction of CORMON on Pollution Monitoring.

42. The SPA/RAC EcAp/IMAP Officer (Biodiversity component), Mehdi Aissi, presented Information Documents UNEP/MED WG.514/Inf.11 and WG.514/Inf.12 on Monitoring and Assessment Scales, Assessment Criteria, Thresholds and Baseline Values for IMAP Common Indicators 3, 4 and 5 related to marine mammals and marine turtles. It was explained that there are three steps in the approach: (i) refining scales of monitoring, by revising the existing IMAP proposals and identifying adequate scales for the most relevant species in the Mediterranean context; (ii) developing scales of assessment (if different from those of monitoring) and assessment criteria; and (iii) developing threshold and baseline values. Analysis is elaborated following the species functional group as appeared in the reference list of species of the IMAP Decision (IG.22/7). For marine turtles, the scales of monitoring are elaborated following the species life cycle, nesting and breeding areas. It was highlighted that setting threshold values for an indicator is a complex and imprecise process.

43. A member of EcAp CG thanked SPA/RAC for the progress on values and list of references and noted the document had been updated. The EcAp member highlighted that work is still in the conceptual stage, and it needs to be more operational. The most important aspect is the definition of ecological values and the targets which are ambitious and difficult to achieve, especially because already established non-indigenous species may not be easy to assess. Therefore, the reduction of impact is ambiguous. A question was raised as to what the process will be to make progress regarding definition of targets for this document.

44. In response the Secretariat confirmed that there is ongoing work regarding definitions of GES and targets and review of the definition of GES will be conducted at a later stage. It will then be possible to make necessary amendments so as to achieve the EOs.

45. The Meeting encouraged SPA/RAC and CORMON Biodiversity to continue working, including mobilizing national expertise via the informal OWG, and use the findings to prepare the inputs for the 2023 MED QSR. The Meeting endorsed the revised guidance fact sheets for the IMAP Common Indicator 6 related to Non-Indigenous Species (Annex V) and requested the Secretariat to use it for the development of the 2023 MED QSR.

46. The Meeting's final conclusions related to these agenda items are presented in Annex 3 of this report.

Agenda Item 7: IMAP Data Policy

UNEP/MED WG.514/11

47. The INFO/RAC Coordinating Unit Deputy Director, Arthur Pascale, presented the Working Document UNEP/MED WG.514/11 "Elements for IMAP Data Policy". The Meeting noted specific metric annexes related to all the UNEP/MAP data flows managed by INFO/RAC will be developed during the next biennium and will

complement the general MAP Data Policy. Specific Data Policy Annexes for each data flow will be developed by INFO/RAC under the coordination of the Secretariat and in close consultation with all relevant MAP Components through an in-depth discussion with Countries, ensured by planned Bilateral Meetings postponed to the next biennium, due to the delay caused by the COVID-19 pandemic.

48. The Meeting called upon Contracting Parties give the maximum availability and priority to the participation in the IMAP data policy definition process in order to establish a common and efficient data management to achieve and share the essential knowledge base for the Mediterranean Sea needed for next QSR. The Meeting endorsed the elements of the IMAP Data Policy (Annex VI) to complement the MAP Data Policy submitted to MAP Focal Points Meeting.

49. The Meeting's final conclusions related to this agenda item are presented in Annex 3 of this report.

Agenda Item 8: Any Other Business

50. A member of EcAp CG requested the Secretariat to prepare and disseminate the Calendar with a view to mobilize interest and timely participation of the Contracting Parties and Partners.

Agenda Item 9: Conclusions and Recommendations

51. The Participants reviewed, commented and adopted the draft Conclusions and Recommendations, as amended. The final text of the adopted Conclusions and Recommendations is presented below. The Annexes to the Conclusions and Recommendations, including those documents that were modified during the Meeting, are presented in Annex 3 to the present report.

Agenda Item 10: Closure of the Meeting

52. The President thanked participants and the Secretariat and for all their work in 2020/21 and urged them to maintain their efforts. The President closed the Meeting at 18:20 on Thursday 9 September 2021.

Annex 1
List of Participants

**LIST OF PARTICIPANTS
LISTE DES PARTICIPANTS**

Country/Pays	Participant
ALBANIA/ALBANIE	Ms. Klodiana Marika Director of Development Programmes on Environment, Ministry of Tourism and Environment
BOSNIA AND HERZEGOVINA/BOSNIE ET HERZÉGOVINE	Mr. Admir Aladžuz Biologist/Ecologist MAP Office in BiH Ms. Selma Cengic Hydro-Engineering Institute Mr. Tarik Kupusovic Senior advisor Hydro-Engineering Institute Sarajevo
CROATIA/CROATIE	Mr. Ivan Radic Senior advisor Ministry of Economy and Sustainable Development Ms. Sandra Troselj Stanisic Ministry of Economy and Sustainable Development
CYPRUS/CHYPRE	Ms. Marina Argyrou Director Ministry of Agriculture, Rural Development and Environment
EGYPT / ÉGYPTE	Mr. Mohamed Said Abdelwarith Environmental Researcher Ministry of Environment Mr. Sameh Ayoub MED POL Focal Point Egyptian Environmental Affairs Agency (EEAA) Mr. Mohamed Eissawy Assistant Minister Ministry of Environment Ms. Samah Saleh General Director, Ministry of Environment
EUROPEAN COMMISSION / COMMISSION EUROPÉENNE	Ms. Rosa Antidormi Senior Policy Officer European Commission Mr. Fabio Pirotta European Commission

Country/Pays

Participant

	Mr. David Connor European Commission
FRANCE / FRANCE	Mme. Laure Ducommun Ministère de la Transition Ecologique (French Ministry in charge of the ecological transition) Ms. Anna Lizinska Office Français de la biodiversité Mr. Laurent Guérin Office Français de la Biodiversité
GREECE / GRECE	Mr Christos Mathioudakis Hellenic Ministry of Environment and Energy (ERMIS)
ISRAEL / ISRAEL	Ms. Ayelet Rosen Ministry of Environmental Protection
ITALY / ITALIE	Mr. Roberto Giangreco Senior officer Italian Ministry of Environment Land and Sea Ms. Valentina Mauriello Italian Ministry of Ecological Transition
MALTA / MALTE	Mr. Luke Tabone Environment Protection Officer Environment & Resources Authority (ERA)
MONTENEGRO / MONTÉNÉGRO	Ms. Ivana Stojanovic Head of Division for Integrated Management of Marine and Terrestrial Ecosystems Ministry of Ecology, Spatial Planning and Urbanism
MOROCCO / MAROC	Mr. Houcine Kasmi Département de l'Environnement / Ministère de l'Energie, des Mines et de l'Environnement Ms. Khaoula Lagrini Head of unit in charge of multilateral cooperation Department of Environment Mme. Nassira Rheyati Chef de la Division de la Coopération Internationale Département de l'Environnement / Ministère de l'Energie, des Mines et de l'Environnement
SLOVENIA / SLOVÉNIE	Ms. Nataša Bratina Secretary The Ministry for Environment and Spatial Planning Ms. Barbara Breznik Ministry of the environment and spatial planning

Country/Pays	Participant
	Mr. Mitja Bricelj President SI PCY Barcelona Convention (OSPAR, HELCOM), Ministry of the Environment and Spatial Planning
	Ms. Kim Leban Institute for Water of the Republic of Slovenia
	Ms. Tina Voncina Ministry for the Environment and Spatial Planning
	Ms. Polonca Kogovšek Karmous Ministry of Environment and Spatial Planning of Slovenia - SI PCY
SPAIN / ESPAGNE	Ms. Lucía Martínez Miteco
	Sra. Beatriz Sánchez Ministry for the Ecological Transition and the Demographic Challenge
TUNISIA / TUNISIE	Mr. Mohamed Sghaier Ben Jeddou Directeur Général, Ministry For Environment Of Tunisia
TURKEY / TURQUIE	Ms. Eda Bayar Expert Ministry of Environment and Urbanization
	Ms. Vildan BÖLÜkbaşı Atay Environmental Engineer Ministry of Environment and Urbanization
	Mr. Nasih Sarp Ergüven Senior Researcher Ankara University National Center for the Sea and Maritime Law
	Ms. Beyza Ozturanli Sanda Dehukam
	Mr. Mehmet Tamer Çobanoğlu Expert Ministry of environment and urbanization
	Ms. Özlem örme Branch manager Ministry of Environment and Urbanization

**UNITED NATIONS SYSTEM ORGANIZATIONS
ORGANISATIONS DU SYSTÈME DES NATIONS UNIES**

**UNITED NATIONS ECONOMIC AND SOCIAL
COMMISSION FOR WESTERN ASIA /
COMMISSION ÉCONOMIQUE ET SOCIALE
DES NATIONS UNIES POUR L'ASIE
OCCIDENTAL**

Ms. Lara Geadah
Associate Coordination Officer

**SECRETARIAT TO THE BARCELONA CONVENTION AND COMPONENTS OF THE
MEDITERRANEAN ACTION PLAN**

**SECRÉTARIAT DE LA CONVENTION DE BARCELONE ET COMPOSANTES DU
PLAN D'ACTION POUR LA MÉDITERRANÉE**

**REGIONAL ACTIVITY CENTRE FOR
INFORMATION AND COMMUNICATION
(INFO/RAC) / CENTRE D'ACTIVITÉS RÉGIONALES
POUR L'INFORMATION ET LA COMMUNICATION
(INFO/CAR)**

Lorenza Babbini
Director

Mr. Arthur Pasquale
Deputy Director

**REGIONAL ACTIVITY CENTER FOR THE
PRIORITY ACTIONS PROGRAMME (PAP/RAC) /
CENTRE D'ACTIVITÉS RÉGIONALES
PROGRAMME D' ACTIONS PRIORITAIRES
(CAR/PAP)**

Mr. Marko Prem
Deputy Director

Ms. Zeljka Skaricic
Director

**REGIONAL MARINE POLLUTION EMERGENCY
RESPONSE CENTRE FOR THE MEDITERRANEAN
SEA (REMPEC) / CENTRE RÉGIONAL
MEDITERRANÉEN POUR L'INTERVENTION
D'URGENCE CONTRE LA POLLUTION MARINE
ACCIDENTELLE (REMPEC)**

Mr. Gabino Gonzalez Deogracia
Head of Office

**REGIONAL MARINE POLLUTION EMERGENCY
RESPONSE CENTRE FOR THE MEDITERRANEAN
SEA (REMPEC – BARCELONA CONVENTION) /
CENTRE RÉGIONAL MEDITERRANÉEN POUR
L'INTERVENTION D'URGENCE CONTRE LA
POLLUTION MARINE ACCIDENTELLE (REMPEC-
CONVENTION DE BARCELONE)**

Ms. Claudette Briere Spiteri
Offshore Consultant

**UNITED NATIONS ENVIRONMENT PROGRAMME -
MEDITERRANEAN ACTION PLAN (UNEP/MAP) /
PROGRAMME DES NATIONS UNIES POUR
L'ENVIRONNEMENT - PLAN D'ACTION POUR LA
MEDITERRANEE (PNUE/PAM)
REGIONAL ACTIVITY CENTER FOR SPECIALLY
PROTECTED AREAS (SPA/RAC) / CENTRE D'
ACTIVITÉS RÉGIONALES POUR LES AIRES
SPECIALEMENT PROTÉGÉES (CAR/ASP)**

Mr. Atef Ouerghi
Programme Officer

Mr. Khalil Attia
Directeur

Mr. Mehdi Aissi
Project Officer

**UNITED NATIONS ENVIRONMENT PROGRAMME –
MEDITERRANEAN ACTION PLAN (UNEP/MAP) /**

Ms. Joanne Foden
Programme Management Officer

**PROGRAMME DES NATIONS UNIES POUR
L'ENVIRONNEMENT - PLAN D'ACTION POUR LA
MEDITERRANEE (PNUE/PAM)**

Ms. Sylvie Fortin
Administrative Assistant

Mr. Christos Ioakeimidis
Project Manager

Mr. Matthew Lagod
MedProgramme International Waters
Specialist

Mr. Jihed Ghannem
Public Information Officer

Mr. Carlos Guitart
MedProgramme (GEF TDA)

**UNITED NATIONS ENVIRONMENT PROGRAMME
(UNEP) / PROGRAMME DES NATIONS UNIES POUR
(PNUE)**

Mr. Mohamad Kayyal
Programme Management Officer

Ms. Jelena Knezevic
Monitoring and Assessment Officer

Ms. Kumiko Yatagai
Fund/Administrative Officer

Mme. Serah Jaoko
Finance and Budget Officer

Ms. Irene Cavoura Vasileiadi
Programme Assistant

Mr. Erol Cavus
Programme Officer

Mr. Giorgos Petridis
Procurement and Meeting Services Assistant

Mr. Philippe Théou
Project Management Officer

**REPRESENTATIVES OF INTERGOVERNMENTAL ORGANIZATIONS
REPRESENTANTS DES ORGANISATIONS INTERGOUVERNEMENTALES**

**AGREEMENT ON THE CONSERVATION OF
CETACEANS IN THE BLACK SEA, MEDITERRANEAN
SEA AND CONTIGUOUS ATLANTIC AREA
(ACCOBAMS) / ACCORD SUR LA CONSERVATION
DES CÉTACÉS DE LA MER NOIRE, DE LA
MÉDITERRANÉE ET DE LA ZONE ATLANTIQUE
ADJACENTE (ACCOBAMS)**

Ms. Susana Salvador
Executive Secretary

Ms. Mailys Salivas
Project and Programme Officer

**SECRETARIAT OF THE UNION FOR THE
MEDITERRANEAN (UFMS) / SecrÉTARIAT DE
L'UNION POUR LA MÉDITERRANÉE (UFMS)**

Ms. Samira Shaban Pina

**REPRESENTATIVES OF ACADEMIA
REPRÉSENTANTS DES MILIEUX ACADÉMIQUES**

**UNIVERSITY OF MALAGA – EUROPEAN TOPIC
CENTRE / UNIVERSITÉ DE MALAGA – CENTRE
THÉMATIQUE EUROPÉEN**

Mme. Dania Abdul Malak
ETC-UMA Director

Ms. Nelly Bourlion

**NON-GOVERNMENTAL ORGANIZATIONS
ORGANISATIONS NON-GOUVERNEMENTALES**

**CENTRE INTERNATIONAL DEDROIT
COMPARE DE L'ENVIRONNEMENT (CIDCE)
OCEANCARE**

Ms. Marie-Victorine Fouché

Sr. Carlos Bravo
Ocean Policy Expert

Ms. Nadia Deckert
International ocean policy expert

Mr. Nicolas Entrup
Co-Director International Relations

**ASSOCIATION OF CONTINUITY OF GENERATIONS
(ACG) / ASSOCIATION DE LA CONTINUITÉ DES
GÉNÉRATIONS (ACG)**

Mme. Sana Taktak

**BLUE WORLD INSTITUTE OF MARINE RESEARCH
AND CONSERVATION / INSTITUT MONDE BLEU
POUR LA RECHERCHE ET LA CONSERVATION
MARINE**

Mr. Peter Mackelworth
Conservation Director

**CENTER FOR ENERGY, ENVIRONMENT AND
RESOURCES CENER21 / CENTRE POUR L' ÉNERGIE,
L' ENVIRONNEMENT ET DES RESSOURCES
CENER21**

Ms. Nadira Berbic
Project Coordinator

Ms. Amela Džananović
Project assistant

Ms. Emina Zečić

**HELLENIC MARINE
ENVIRONMENT PROTECTION
ASSOCIATION (HELMPEA) /
ASSOCIATION HELLENIQUE DE
PROTECTION DE
L'ENVIRONNEM**

MAREVIVO

**MEDITERRANEAN ASSOCIATION TO SAVE THE
SEA TURTLES (MEDASSET) / ASSOCIATION
MÉDITERRANÉENNE POUR LA
PROTECTION DES TORTUES
MARINES (MEDASSET)**

**MEDITERRANEAN CONSERVATION SOCIETY /
SOCIÉTÉ DE CONSERVATION DE LA
MÉDITERRANÉE**

**MEDITERRANEAN
INFORMATION OFFICE FOR
ENVIRONMENT, CULTURE AND
SUSTAINABLE DEVELOPMENT
(MIO-ECSDE) / BUREAU
MÉDITERRANÉEN
D'INFORMATION SUR
L'ÉNVIRONNEMENT, LA
CULTURE ET LE
DÉVELOPPEMENT DURABLE
(MIO-ECSDE)**

SURFRIDER FOUNDATION EUROPE

**THE MOHAMMED VI FOUNDATION FOR
ENVIRONMENTAL PROTECTION / FONDATION
MOHAMMED VI POUR LA PROTECTION DE
L'ÉNVIRONNEMENT
YOUTH LOVE EGYPT (YLE) FOUNDATION /**

Mr. Constantinos Triantafillou
Head of Strategy & Development

Ms. Gabriella Iannantuoni
Assistant coordinator

Ms. Konstantina Andreanidou

Mr. Zafer Ali Kizilkaya
Head of BoD

Ms. Funda Kok Filiz
Conservation Manager

Ms. Yasemin Ulusoy

Ms. Anastasia Roniotes

Mr. Michail Marios Scoullas
Chairman

Mme. Clémence Baudu-Descamps

Mr. Sami EL Iklil
Program Manager
The Coastline protection Program

Mr. Ahmed Fathy

Annex 2
Agenda of the Meeting

Agenda of the Meeting

- | | |
|------------------------|--|
| Agenda Item 1: | Opening of the Meeting |
| Agenda Item 2: | Organizational Matters |
| Agenda Item 3: | Implementation of the Ecosystem Approach Roadmap |
| Agenda Item 4: | Implementation of the 2023 MED QSR Roadmap |
| Agenda Item 5: | 2023 MED QSR Development Approach and Structure, and Communication and Visibility Strategy |
| Agenda Item 6: | Technical Guiding Elements on IMAP Implementation: Assessment Criteria and Scales, Thresholds, Baseline Values |
| Agenda Item 7: | IMAP Data Policy |
| Agenda Item 8: | Any Other Business |
| Agenda Item 9: | Conclusions and Recommendations |
| Agenda Item 10: | Closure of the Meeting |

Annex 3
Conclusions and Recommendations

**Conclusions and Recommendations 8th Meeting of the
Ecosystem Approach Coordination Group as adopted on 9
September 2021**

Introduction

1. In accordance with POW 2020/2022 the meeting of the Ecosystem Approach Coordination Group was held on 9 September 2021 via teleconference.
2. Following the review and discussions of all agenda items, the Ecosystem Approach Coordination Group (EcAp CG) agreed on the following conclusions and recommendations:

Agenda Item 3: Implementation of the Ecosystem Approach Roadmap

3. The Meeting acknowledged the progress achieved in the implementation of the Ecosystem Approach Roadmap and of related Decisions of the Contracting Parties to the Barcelona Convention and its Protocols, in particular the preparatory work for, and the implementation of, national monitoring programmes by the Contracting Parties and delivery of related quality assured data.
4. Considering the primary importance of monitoring data reporting in line with several decisions of COP 19, 20 and 21, the Meeting called upon all Contracting parties to respond to the data call issued by the Secretariat in June 2020, in line with the agreed timeline.
5. The Meeting discussed the elements and the proposal on possible ways and approaches to strengthen the governance mechanism established to guide and contribute to the implementation of the Ecosystem Approach Roadmap and recommended that EcAp Coordination Group composition is generally reconfirmed at the level of MAP Focal Points and the meeting is held annually online to review progress and discuss policy directions related to implementation of ecosystem approach Roadmap implementation, as well as all related documentations aimed at submission to COPs and or technical documents with policy impact. The rest of the technical documentation could be left for review and approval by CORMONs and respective Component Focal Points as appropriate and when in line with their mandates.
6. The Meeting agreed with the proposal of the secretariat to strengthen CORMON by adding to their mandate important elements/ scientific aspects of the CORGEST mandate; it acknowledged the added value of the work of the Online Working Groups (OWG) on the understanding as flexible arrangements aiming at supporting and facilitating the work of CORMONs and the Secretariat and working under clear CORMON directions and timeline. The meeting was also in agreement with the continuation of CORESA on an *ad hoc* basis considering the possibility for expanding its mandate to cover socio economic aspects of assessment and related programmes of measures (Annex I).
7. The meeting agreed to transmit to the MAP FP meeting for their consideration the Annex contained in these Conclusions and Recommendations for inclusion in the draft Decision IG.25/3 on Governance. The meeting also requested the Secretariat to further work on the preparation of terms of reference (ToRs) during the next biennium to better specify the scope, mandate and composition of the EcAp Governance mechanism EcAp Coordination Group, CORMONs online working groups and CORESA including the relationship between CORMONs and online working groups for the consideration of EcAp CG meeting in 2022.
8. Finally, the meeting appreciates the work undertaken by CORMONs during the last biennium addressing important issues for the implementation and further development of IMAP, Science Policy Interface (SPI), and strengthening the regional and subregional collaboration.
9. The meeting acknowledges the effort made to enhance the synergies with the relevant work on monitoring and assessment undertaken by Regional Seas at global and regional level, EU MSFD with the view to benefit from existing good practices and lessons learnt and project the Mediterranean work for the implementation of IMAP noting that only the Contracting Parties which are members of the EU are bound by MSFD requirements and tools.

10. The meeting requested the Secretariat to develop, in collaboration with relevant partners, a list of Common Indicators, the monitoring and assessment specifics of marine food web (EO4) and sea floor integrity (EO6).

Agenda Item 4: State of Play in the Implementation of the 2023 MED QSR Roadmap

11. The meeting reviewed Working Document UNEP/MED WG.514/04 “Implementation of the 2023 MED QSR Roadmap”, supported by UNEP/MED WG.514/Inf.8. The Meeting thanked the Secretariat for its work and called upon Contracting Parties, CORMONs and the Secretariat and MAP component to continue working effectively to successfully deliver the MED QSR 2023 as indicated in its Roadmap approved by COP 21 in Naples Italy. The Meeting called upon Contracting Parties to submit their data to the IMAP Info System.

12. The meeting also appreciated the work undertaken to involve several partners in the process of 2023 MED QSR preparation in particular the scientific community under the substantive direction of CORMONs and coordination by the Secretariat.

Agenda Item 5: 2023 MED QSR Development Approach and Structure, and Communication and Visibility Strategy

13. The Meeting reviewed and endorsed the Working Document UNEP/MED WG.514/05 “2023 MED QSR methodology, outline, structure and contents” as contained in these Conclusions and Recommendations, recommending a number of adjustments including: the addition of underwater noise; reflecting how the DPSIR will be approached at level of EO; to strengthen the link between hydrography and biodiversity particularly regarding habitats; and exploring the possibility for including seafloor integrity, recognizing the EO6 was under development with clear links between the common indicators fact sheet, to undertake assessment for the biodiversity component, i.e., for species. Other adjustments are shown in Annex II.

14. The Meeting reviewed and endorsed with minor changes the Working Document UNEP/MED WG.514/06 and the priority activities and opportunities for wide dissemination and high visibility of the 2023 MED QSR at regional and global levels to promote the findings of the 2023 MED QSR on the status of the Mediterranean Sea and Coast, in order to support evidence-based marine and coastal management, and advocate policies and measures based on this enhanced knowledge to underpin efforts aimed at achieving the Good Environmental Status (GES) in the Mediterranean and promote harmonized assessment across regional seas (Annex III).

Agenda Item 6: Technical Guiding Elements on IMAP Implementation: Assessment Criteria and Scales, Thresholds, Baseline Values

15. The Meeting reviewed Working Document UNEP/MED WG.514/07 “Updated Baseline Values and Proposal for Threshold Values for IMAP Common Indicator 22”. The Meeting thanked the Secretariat for updating the Baseline Values (BV) and proposing Threshold Values (TV) further to a commonly agreed methodology. The Meeting endorsed the Working Document UNEP/MED WG.514/07 and the proposed Baseline and Threshold Values for IMAP Common Indicator 22 and recommended its submission to COP22 for adoption (Annex IV).

16. The meeting reviewed the Working Documents on Background (Assessment) Concentrations (BC/BAC) for Common Indicator 17 and upgraded approach for Environmental Assessment Criteria (EAC) for IMAP Common Indicators 17, 18 and 20 (UNEP/MED WG.514/8, supported by UNEP/MED WG.514/Inf.9). The Meeting appreciated the work undertaken by the Secretariat and took note of the document with the understanding there is a validation process with CORMONs, and on that understanding, to use it as a basis towards development and testing of the methodologies for GES assessment related to Ecological Objectives 9 and 10 within the preparation of the inputs for 2023 MED QSR. This will depend on the progress in new data reporting from the Contracting Parties into IMAP Info System, and provision of

their support through the OWG on Contaminants regarding analysis and testing of proposed values of the assessment criteria for application of GES assessment methodology.

17. The Meeting reviewed the Working Documents on Assessment Criteria Methodology for IMAP Common Indicator 13: Pilot Application in Adriatic Sub-region (UNEP/MED WG.514/9, supported by UNEP/MED WG.514/Inf.10). The Meeting appreciated the work undertaken by the Secretariat and took note of the document with the understanding there is a validation process with CORMONS and on that understanding, to use as a basis for progressing towards setting the assessment criteria for DIN and TP within the preparation of the inputs for 2023 MED QSR. This will depend on the progress in new data reporting from the Contracting Parties into IMAP Info System and provision of the support through the OWG on Eutrophication regarding elaboration and testing of proposed methodological approaches for setting boundary values, including relevant statistical approaches, as suitable for specific areas in Mediterranean sub-regions.

18. The Meeting acknowledged the progress with regards to assessment scales, baseline and threshold values on common indicators 3, 4 and 5 related to marine mammals and sea turtles (UNEP/MED WG.514/inf.11 and WG.514/inf.12) and encouraged SPA/RAC and CORMON on biodiversity, to continue working, including through the mobilization of national expertise via the informal online working group, and use the findings for the preparation of the inputs for the 2023 MED QSR.

19. The Meeting endorsed the revised guidance fact sheets for the IMAP Common Indicator 6 related to Non-Indigenous Species annexed to these conclusions and recommendations and requested the Secretariat to use it for the development of the 2023 MED QSR.

Agenda Item 7: IMAP Data Policy

20. The Meeting reviewed the Working Document UNEP/MED WG.514/11 “Elements for IMAP Data Policy”. The Meeting noted specific metric annexes related to all the UNEP/MAP data flows managed by INFO/RAC will be developed during the next biennium and will complement the general MAP Data Policy. The Meeting called upon Contracting Parties give the maximum availability and priority to the participation in the IMAP data policy definition process in order to establish a common and efficient data management to achieve and share the essential knowledge base for the Mediterranean Sea needed for next QSR. The Meeting endorsed the IMAP Data Policy as annexed to these conclusions and recommendations and recommended its submission to COP22 for adoption.

21. Reaffirming the central role of INFO/RAC Focal Points in the coordination of the IMAP user network to facilitate and harmonize IMAP monitoring data collection and sharing, the meeting reviewed and endorsed UNEP/MED WG.514/11 as contained in the Conclusions and Recommendations of this meeting and welcomed the elaboration (in the biennium 2022-2023) of a specific IMAP data policy to complement the MAP Data Policy submitted to MAP Focal Points Meeting.

22. The Meeting appreciated the work done by the IMAP help desk of INFO/RAC, providing and ensuring a continuous technical support to Contracting Parties to facilitate understanding, access, and use of the IMAP Info System and committed to provide availability to participate into the ongoing Training/Assistance meetings organized by INFO/RAC.

23. The Meeting welcomed the engagement of the Contracting Parties in the IMAP reporting and agreed to timely inform the Secretariat and the MAP Components about the state of play of the availability of monitoring data in each country, used sources and level of ongoing submission in order to facilitate the right support by Secretariat and MAP Components.

24. The meeting took note that MEDPOL Info System is no longer operational, and the existing MEDPOL data flows have been replaced by the correspondent data submission to the IMAP Info System (Common Indicators for Pollution and Marine Litter). The Meeting encouraged Contracting Parties to check the availability of previous data, converted and migrated by INFO/RAC from the MEDPOL Info System to the IMAP Info System and to report data in it according to the new Data Standards templates, in the case of new data or for past data never shared.

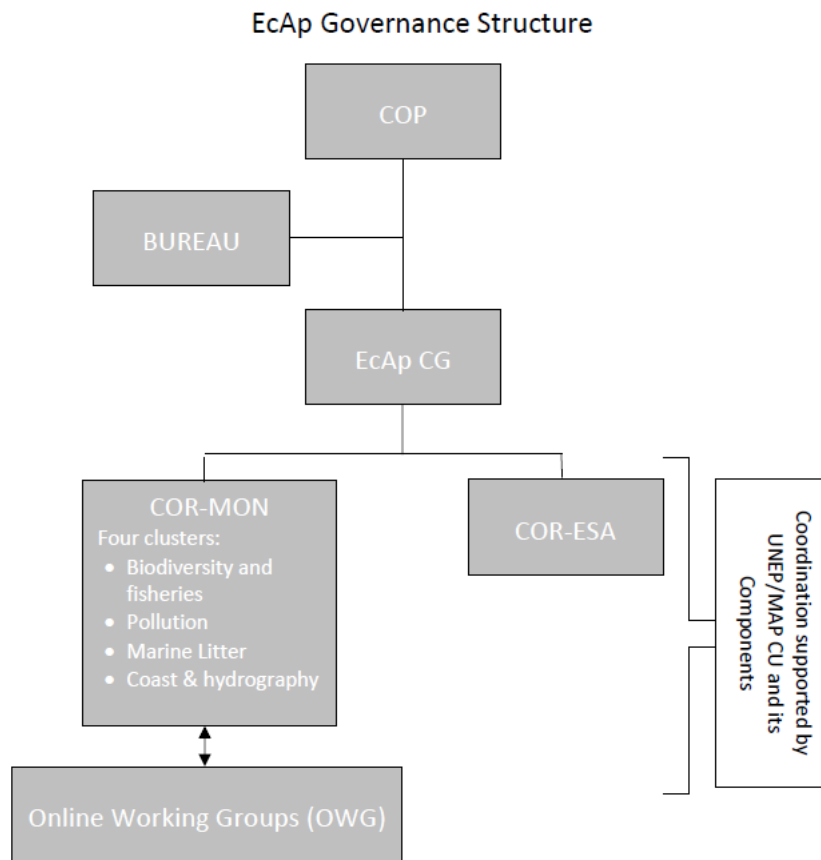
Any Other Business

25. The meeting requested the Secretariat to prepare and disseminate the Calendar with a view to mobilize interest and timely participation of the CPs and Partners

Closure of the Meeting

26. The Chair closed the Meeting at 18:30, on Thursday, 9 September 2021.

Annex I
EcAp governance structure



Promoting Science Policy Interface for IMAP implementation in the region

The EcAp Coordination Group (EcAp CG) consisting of MAP Focal Points integrates and gives guidance to the work under the Barcelona Convention:

- a) On the delivery of the ecosystem approach, making sure that all elements for its implementation are taken into account, weighting of priorities and resource implications; and
- b) Coordinating Barcelona Convention/UNEP-MAP's facilitation role, in support of Contracting Parties in their implementation of EcAp.

Two Correspondence Groups are formed in the process of application of EcAp in the Mediterranean and to support EcAP Coordination Group:

1. The Correspondence Group on Monitoring (**COR MON**) composed of national experts designated by the Contracting Parties, and coordinated by Barcelona Convention/UNEP-MAP Coordinating Unit and MED POL, working to ensure efficient coverage and in-depth discussions and analysis regarding integrated monitoring and assessment.
2. The Correspondence Group on Economic and Social Analysis (**COR ESA**) is composed of national experts designated by the Contracting Parties and invited experts, and coordinated by Barcelona Convention/UNEP-MAP Coordinating Unit and BP/RAC. It develops a socioeconomic analysis of marine ecosystems uses, focusing on priority sectors such as fisheries, aquaculture, maritime transport, recreational activities, and oil industry and offshore and address as appropriate the socioeconomic aspects related to the formulation and implementation of programmes of measures to achieve/maintain good environmental status (GES)

3. Informal Online Working Groups (OWG) composed of experts and scientists nominated by the Contracting Parties and experts mobilised by the Secretariat and MAP Components. The composition should be restricted in number, with well-balanced geographical representation. The agenda of the Informal OWG and the timeline for their operationality is defined by the respective CORMONs. The Informal OWG report to CORMON and do not replace CORMONs.

4. Science-Policy Interface (SPI). Every effort should be made to promote SPI for IMAP implementation in the Mediterranean.

Annex II
2023 MED QSR methodology, outline, structure and contents

List of Abbreviations / Acronyms

CI	Common Indicator
COP	Conference of the Parties
CORMON	Correspondence Group on Monitoring
DPSIR	Driver-Pressure-State-Impact-Response
EC	European Commission
EcAp	Ecosystem Approach
EO	Ecological Objective
GES	Good Environmental Status
GFCM	General Fisheries Commission for the Mediterranean
HELCOM	Baltic Marine Environment Protection Commission - Helsinki Commission
HOLAS	Holistic Assessment of the Ecosystem Health of the Baltic Sea
ICZM CRF	Common Regional Framework for Integrated Coastal Zone Management
IMAP	Integrated Monitoring and Assessment Programme
INFO/RAC	Information and Communication Regional Activity Centre
MAP	Mediterranean Action Plan
MED POL	Programme for the Assessment and Control of Marine Pollution in the Mediterranean Sea
MPA	Marine Protected Area
MSFD	Marine Strategy Framework Directive
NIS	Non-indigenous Species
OSPAR	Convention for the Protection of the Marine Environment for the North-East Atlantic
PAP/RAC	Priority Actions Programme Regional Activity Centre
PoW	Programme of Work
QSR	Quality Status Report
REMPEC	Regional Marine Pollution Emergency Response Centre for the Mediterranean Sea
SDG	Sustainable Development Goal
SOx ECA	SOx Emission Control Area
SPA/RAC	Regional Activity Centre for Specially Protected Areas
SPAMI	Specially Protected Areas of Mediterranean Importance

1. Vision, concept and elements for the methodological approach of the 2023 MED QSR

a. Objective and Vision

1. The objective of the 2023 MED QSR is to assess the status of the Mediterranean Sea and Coast and the progress towards its Good Environmental Status (GES), as a basis for informed decision-making and enhanced action.

2. As defined in the 2023 MED QSR Roadmap, the vision for the successful delivery of the 2023 MED QSR is: an integrated DPSIR-based GES assessment, developed on consolidated and quality-assured monitoring data sets, reported and processed through an effective IMAP Info System that is interoperable with national and other regional monitoring and reporting networks.

b. Data sources

3. In line with Decision IG. 22/7 adopted by COP 19 (Athens, Greece February 2016), the IMAP assessment products produced by the UNEP/MAP Secretariat, including the 2023 Mediterranean Quality Status Report, should be mainly based on the Common Indicators and monitoring data provided by Contracting Parties as part of IMAP implementation. In areas of scientific and/or data gaps, the assessment products can also build on relevant scientific projects, pilot outcomes, and comparable data of other regional organizations and in case these are not available, on scientific literature. In addition, they should analyse trends, drivers and build on available socio-economic data.

4. The 2023 MED QSR will be based on the IMAP Ecological Objectives, Common Indicators, Targets and Good Environmental Status descriptions. In consultation with the Contracting Parties, additional key emerging issues may be identified for inclusion in the 2023 MED QSR.

5. The primary sources of data for the 2023 MED QSR will be data reported by the Contracting Parties into the IMAP Info System as part of the implementation of IMAP-based national monitoring programmes. The IMAP Info System is currently supporting the reporting of 11 IMAP Common Indicators (CI 1, 2, 6, 13, 14, 15, 16, 17, 21, 22 and 23), and will be upgraded by June 2022 to include all mandatory IMAP Common Indicators (CI 3, 4, 5, 18, 19, 20).

6. A call for mandatory data submission into the IMAP Info System has been launched in June 2020, requesting Contracting Parties to systematically report all 2020 monitoring data, as well as data collected prior to 2020, which will be both used for the purposes of the 2023 MED QSR assessment. It is expected that the Contracting Parties will be able to report a minimum of 3 new sets of data for IMAP Common Indicators related to the Pollution and Marine Litter cluster (EO5, EO9, EO10), a minimum of 1 new data set for IMAP Common Indicators related to the Biodiversity and Non-indigenous Species (NIS) cluster (EO1, EO2) and 1 data set for IMAP Common Indicators related to the Coast and Hydrography cluster (EO7 and EO8). In addition, cooperation will be ensured with the General Fisheries Commission for the Mediterranean (GFCM-FAO) for data and assessment related to the Common Indicators under Ecological Objective 3 (Harvest of commercially exploited fish and shellfish) (CI 7-12). The monitoring and reporting will be done in line with available standardized methods, guidance factsheets, monitoring protocols and data standards and data dictionaries, which will ensure the comparability of data reported and their subsequent assessment.

7. Where data gaps have been identified, IMAP-generated data will be complemented by other available data sources to be defined and agreed in consultation with the Contracting Parties based on the mapping of relevant scientific projects and institutions, currently undertaken by the UNEP/MAP Secretariat for the 2023 MED QSR and for a strengthened science-policy interface in the Mediterranean (see Table 3 for the partners and list of sources identified for contribution to the 2023 MED QSR preparation). This relates in particular, but not exclusively, to data related to Candidate Common Indicators (24, 25, 26 and 27), Ecological Objectives 4 and 6 which are under development, as well as data related to emerging issues to be addressed in the 2023 MED QSR. To this respect, a meeting with the identified scientific projects, partners, and institutions is currently being organized by the Secretariat for August/September 2021, aiming to identify their contribution in terms of complementary data, tools, and methodologies for the successful preparation and delivery of the 2023 MED QSR, and to agree on a timeline for regional data sharing.

c. Methodological approaches for assessment

8. The assessment for the 2023 MED QSR will be done at regional level, based, as appropriate, on data and information coming from IMAP implementation at national level, as part of the implementation of the UNEP/MAP Programme of Work and ongoing projects (including the EU-funded IMAP-MPA, EcAp MED III, and ML MED II projects; and the GEF-funded MedProgramme relevant child projects). Where available, results of sub-regional assessments may also be presented for specific Common Indicators.

9. Based on the progress to be achieved on the integrated assessment methodologies, the assessment of the status of the Mediterranean Sea and Coast will be done in an integrated manner within and, to the extent possible across, the two or three IMAP clusters (Pollution and Marine Litter; Biodiversity and Fisheries; Coast and Hydrography), and will address interrelations of pressures and impacts.

10. In line with the progress to be achieved by the UNEP/MAP system in the next two biennia as part of the implementation of the 2023 MED QSR Roadmap, the 2023 MED QSR methodology will be based on:

- Optimal DPSIR methodological approach;
- Methodologies for integrated assessment identified and tested by the UNEP/MAP system as part of the IMAP implementation;
- The UNEP Guidelines for Conducting Integrated Environmental Assessments (2019);
- Regular consultations with Contracting Parties, key regional experts and stakeholders.

11. The UNEP/MAP system is currently implementing activities identified in the 2023 MED QSR Roadmap as priority activities to be implemented in order to propose, refine and agree on the scales of assessment and integrated assessment methodologies to support the development of the 2023 MED QSR. The proposals for scales and integrated assessment methodologies have been refined and proposed for consideration at the CORMON cluster meetings in 2021 (CORMON Marine Litter 30 March 2021; CORMON Pollution 26-28 April 2021; and CORMON Biodiversity and Fisheries 10-11 June 2021) and related SPA/RAC Focal Points Meeting (June 2021) and MEDPOL Focal Points Meeting (session of July 2021) and are going to be subsequently tested throughout 2021 and 2022. The scales of assessment defined/agreed by early 2022 CORMONs will be used to prepare the first draft of the 2023 MED QSR.

d. Process and governance

12. The development of the 2023 MED QSR is a participatory, joint effort of the entire MAP System, and its successful delivery will depend on the timely support and contributions of each Contracting Party, MAP Component, Secretariat and Partners to the monitoring, reporting and assessment in line with IMAP.

13. The process of developing the 2023 MED QSR will primarily be guided through the existing EcAp/IMAP governance structure. An effective and regular consultative and coordination process will be ensured with the Contracting Parties through the Ecosystem Approach Coordination Group and the CORMONs, as well as sub-regional expert meetings, as appropriate. Meetings with Contracting Parties will be held at least once every biennium at MAP Focal Points, EcAp Coordination Group, and MAP Component Focal Points levels, who will review and approve the progress, proposed operational implementation plan, methodological approaches and content at all key stages of the 2023 MED QSR development process. Intersessional work will be supported through informal Online Working Groups, established at the level of IMAP Clusters, as necessary and under the scope and concrete modalities to be agreed by the Contracting Parties. Any issues, delays, and requirements for adjustment of the 2023 MED QSR implementation plan and contents will be reported to the relevant governance bodies in a timely manner.

14. At the national level, Contracting Parties have been encouraged to establish National IMAP Committees or similar structures ensuring the participation of key institutions and experts involved on IMAP implementation in order to support the timely implementation of national IMAPs, on which the 2023 MED QSR will be based. The Ecosystem Approach Coordination Group members and designated

national IMAP users will play a key role in the process, ensuring the timely contributions of Contracting Parties, including reporting of monitoring data into the IMAP Info System and preparation of national assessments. Each Contracting Party will be expected to develop national assessment factsheets for all or selected Indicators of the national IMAP, which will then be aggregated by the Secretariat at the regional (and possibly sub-regional) level to produce the 2023 MED QSR.

15. At the level of UNEP/MAP Secretariat, the development of the 2023 MED QSR will be coordinated by the Coordinating Unit with the technical support of the IMAP Task Force. MED POL, SPA/RAC, PAP/RAC and REMPEC will be responsible for the coordination and delivery of substantive work and chapters for the Pollution and Marine Litter, Biodiversity and Fisheries, and Coast and Hydrography clusters, respectively. Plan Bleu will contribute to the socio-economic analysis and to the mobilization of relevant expertise through the science-policy interface. INFO/RAC will support data management, visualization and communication components.

e. Presentation of results

16. The 2023 MED QSR will be published in a printed and online version, in two languages (English and French). An Executive Summary will be prepared in English, French, Spanish, and Arabic. The printed version will follow the structure approved by the Contracting Parties (presented in Section 2) and will include maps, graphs, and illustrations.

17. Visualizations will be done using latest technologies and innovations available with INFO/RAC, GRID-Geneva and other partner structures to be identified as part of the mapping of sources and partners to be undertaken by the Secretariat in 2021. Graphic designers may be involved from the very beginning of the process of the assessment to produce more advanced infographics (including interactive infographics for online publication). Examples of visualizations (e.g., infographics illustrating status per Common Indicator) used by HELCOM for HOLAS II and other partners for similar assessments may be considered.

18. The online version will be published on a dedicated website which will include more interactive features such as interactive and customizable maps and graphs, dashboards, story-telling features and other functionalities depending on available resources. The 2023 MED QSR website will be linked with the 2017 MED QSR content, and interoperability with other key web-platforms will be ensured to the extent possible, in particular the IMAP Info System, the UNEP World Environment Situation Room (WESR) and the European WISE Marine platform.

19. A 2023 MED QSR Communication and Visibility Strategy has been developed as part of the EU-funded EcAp MED III project, defining priority activities and opportunities for a wide dissemination of the 2023 MED QSR at regional and global levels, and submitted for the consideration by the present Meeting (UNEP/MED WG.514/6).

f. Timeline

20. A timeline for the preparation of the 2023 MED QSR has been prepared by the Secretariat in line with the 2023 MED QSR Roadmap and taking into consideration the workplan of the EU-funded EcAp MED III Project, which will be instrumental in supporting the process. The timeline was welcomed with no further changes by the Integrated CORMON Meetings (December 2020). Key milestones and timeline for the preparation of the 2023 MED QSR are presented in Table 1.

Table 1. 2023 MED QSR preparation milestones and timeline.

Milestones/steps	Expected delivery
Methodology, outline, planning process refined/agreed in a revised Operational Implementation Plan and Concept Note (including through CORMONs)	April 2021
Data sources, partners and requirements for expertise, data sharing and consultancies defined and necessary arrangements for implementation made	August 2021
EcAp Coordination Group updated on progress and issues; Progress in 2023 MED QSR Roadmap implementation, 2023	September 2021

MED QSR methodology, outline, structure, and contents, and 2023 MED QSR Communication and Visibility Strategy presented for CPs' review and endorsement	
First draft of 2023 MED QSR prepared and presented for review by CORMON based on available data and assessment	April 2022
IMAP Info System fully operational to support submission of data for all IMAP Common Indicators	June 2022
Additional data reported/collected and assessment methodologies tested	September 2022
Second draft of 2023 MED QSR prepared/updated based on new data sets and updated assessment methodologies	December 2022
Peer review conducted and contents revised; graphs, maps and visualizations finalized	March 2023
Final draft of 2023 MED QSR presented to the CORMON	March 2023
2023 MED QSR online platform developed with interactive visualizations	July 2023
2023 MED QSR submitted to EcAp Coordination Group and MAP Focal Points meetings	September 2023
2023 MED QSR submitted to the COP 23	December 2023
2023 MED QSR printed version published in two languages	December 2023-January 2024
Dissemination, communication and visibility activities	December 2023-February 2024

2. Proposed elements for 2023 MED QSR contents

21. The table below presents a revised annotated proposal for the contents of the 2023 MED QSR for review and endorsement by the Contracting Parties at the present Meeting. This proposal has been developed taking into account the structure of the 2017 MED QSR previously approved by the Contracting Parties, as well as the structure of other similar reports from other Regional Sea Programmes.

Table 2. Proposed annotated content of the 2023 MED QSR.

Section	Annotations
Foreword (1 page)	
Acknowledgements Advisory Board Authors/consultants List of experts consulted	For printed publication – online this can be replaced by the menu or tabs on the landing 2023 MED QSR page
Acronyms and abbreviations	For printed publication – online this can be replaced by the menu or tabs on the landing 2023 MED QSR page
Table of Contents	For printed publication – online this can be replaced by the menu or tabs on the landing 2023 MED QSR page
Key findings or Executive Summary (1-2 pages)	<i>NEW</i> – (see examples of HOLAS II and 2010 OSPAR QSR) for a more visual and shorter overview of key findings/conclusions of 2023 MED QSR for each Ecological Objective and other thematic (emerging topics) sections, as well as results of integrated assessment and DPSIR (possible through visual infographic such as in HOLAS II). The Executive Summary will

	<p>be prepared in English, French, Spanish, and Arabic.</p>
<p>Introduction (“About the QSR”)</p> <p>0.1. UNEP/MAP and the Barcelona Convention: vision, goals, and Ecological Objectives</p> <p>0.2. Integrated Monitoring and Assessment Programme of the Mediterranean Sea and Coast</p> <p>0.3. Other key global and regional assessment processes</p> <p>0.4. Approach and methodology for the preparation of the 2023 Mediterranean QSR</p>	<p>Presenting briefly EcAp and IMAP process in the Mediterranean, key decisions, links to SDGs and other global processes, progress on implementation and methodology for this QSR. Could use similar structure as 2017 MED QSR (copied here). The section on IMAP can present an update on national IMAP implementation per CI.</p> <p>The integrated assessment methodology and specificities of DPSIR analysis at MAP level would be presented here in detail.</p> <p>The full list of IMAP EOs and CIs could either be presented in a table here, or as an annex at the end of the publication (for online version, as a separate page/tab).</p> <p>As an alternative, the approach and methodology can be presented in a stand-alone section after the Introduction, to give it more prominence.</p>
<p>1. The Mediterranean Sea</p> <p>1.1. Environmental characteristics</p> <p>1.1.1. The Mediterranean marine and coastal environment</p> <ul style="list-style-type: none"> Geography, physiography and landscapes Circulation and water masses Hydrological and climatic setting Water and nutrient characteristics Biodiversity <p>1.1.2. Climate change</p> <ul style="list-style-type: none"> The Mediterranean region: a climate change hot-spot Sea level rise (SLR) Climate Change related risks, vulnerabilities and impacts Possible impacts on GES (<i>NEW</i>) <p>1.2. Socioeconomic characteristics of the Mediterranean</p> <ul style="list-style-type: none"> Introduction Population and development Tourism Maritime transport Energy, gas and oil exploration and exploitation, mining and manufacturing Fisheries and aquaculture Land-based pollution sources. <p>1.3. Regional cooperation (<i>NEW</i>)</p>	<p>Section providing an overview of the Mediterranean regional context in terms of environmental and socio-economic characteristics, similar to the 2017 MED QSR. In the printed version, this should come as the first section after the introduction to set the background/context for the quality assessment.</p> <p>Compared to the 2017 MED QSR, a new sub-section (1.3) is proposed to provide the regional policy and cooperation context in the Mediterranean under the Barcelona Convention. While the Introduction above will include a brief overview of the Barcelona Convention process and the implementation of the Ecosystem Approach, this sub-section could provide more in-depth information on relevant regional policy frameworks and regional cooperation efforts towards assessing and achieving GES. It could also explain the links to the MSFD.</p> <p>Section 1.1 (Environmental characteristics) or 2 (Socioeconomic characteristics) could briefly address ecosystem services and benefits (as part of the argument of why it is important to preserve ecosystems).</p> <p>The section on climate change (which was also included in 2017 MED QSR) should capitalize</p>

<p>Barcelona Convention and Protocols Other relevant regional policy frameworks (e.g., MSFD)</p>	<p>on MedECC results and be brief, if possible highlighting relevance and possible influence of climate change on aspects/indicators covered by IMAP (e.g., possible impacts of CC on eutrophication, habitats, species, NIS, coastal erosion). This can be a simple analysis relying on available global research if no regional analysis is available. This would make this part more integrated with the rest.</p>
<p>2. Mediterranean Quality Status Assessment 2.1 Pollution and Litter Cluster</p> <p>2.1.1 Eutrophication (EO5) - Key findings (introductory paragraph) - Background information on eutrophication/trends and sources of pressure - Methodology: Common Indicators used in the assessment (CI 13-14) and assessment methodology - Integrated GES Assessment for EO5 - Specific issues/trends per selected CI (possibly in the form of diagrams or figures, and maps if feasible) - Analysis and conclusions</p> <p>2.1.2 Pollution (EO9) - Key findings (introductory paragraph) - Background information on pollution/contaminants, including trends and sources of pressure - Methodology: Common Indicators used in the assessment (CI 17-21) and assessment methodology - Integrated GES Assessment for EO9 - Specific issues/trends per selected CI (possibly in the form of diagrams or figures, and maps if feasible) - Analysis and conclusions</p> <p>2.1.3 Marine Litter (EO10) - Key findings (introductory paragraph) - Background information on marine litter, including trends and sources of pressure - Methodology: Common Indicators used in the assessment (CI 22-23) and assessment methodology; CCI24 could be presented in a separate box to update on its status - Integrated GES Assessment for EO10 - Specific issues/trends per selected CI (possibly in the form of diagrams or figures, and maps if feasible) - Analysis and conclusions</p>	<p>For the 2023 edition of the QSR, a new approach is proposed by integrating CIs within specific Ecological Objectives (EO), and thereafter of EOs at the level of IMAP Clusters (rather than by individual CI which was the approach of the 2017 QSR). Each section corresponds to one of the 11 IMAP Ecological Objectives; sections are grouped by clusters (Pollution and Litter; Biodiversity and NIS; Coast and Hydrography) in the same order as 2017 QSR.</p> <p>In line with above, for each cluster, a final section is proposed providing elements towards integrated assessment within this cluster (across EOs) following the DPSIR approach, and possibly elements for integration with other clusters; or, if the methodology for integrated GES assessment per cluster is not ready, this section could provide an update on progress on methodologies and recommendations for next assessment.</p> <p>Each section per EO will include the following core elements:</p> <ul style="list-style-type: none"> - a short paragraph with the key findings for this Ecological Objective (3-4 sentences max), which can be presented as a chapeau like in HOLAS II or in a box similar to OSPAR. - introduction to the issues associated with this Ecological Objective (trends, sources of pressure, targets, as feasible and applicable). - a presentation of Common Indicators used for the assessment and brief description of applied GES methodology, including use of the criteria of assessment within aggregation of assessment findings at optimally nested scales of assessment, as well as visualization of the assessment findings by applying the tools as feasible within selected specific GES assessment methodology i.e., maps/graphs/infographics; - Integrated assessment for the EO using the DPSIR approach as far as possible, based on results of CI assessment; and if possible, comparison with 2017 QSR

	<p>- Specific highlights for individual Common Indicators in case they need to be given particular attention (can be in boxes).</p> <p>- Analysis/conclusions on compliance and non-compliance with GES targets, along with the proposals of next steps to further measures/efforts to be put in place towards GES achievement what is the future outlook and what are the risks, challenges to look out for). This last sub-section could also highlight data gap issues and further efforts required to improve data availability.</p> <p>For each cluster, the assessment will be based on mandatory IMAP Common Indicators monitored and reported by Contracting Parties. Where possible, information/update will also be provided for Candidate Common Indicators as part of relevant chapters/sections based on available data (CCI24, 25, 26 and 27).</p> <p>[For the Pollution cluster, section 2.1.4 on EO11 relates to Candidate Common Indicators CCI26 and CCI27 currently not part of mandatory IMAP monitoring and assessment. It will therefore be based on available data from external sources and will be prepared in partnership with ACCOBAMS and other partners; its approach will therefore be to some extent different from other sections, and the proposed outline for this section may change based on available data and methods.]</p>
<p>2.2 Biodiversity and NIS Cluster</p> <p>2.2.1 Biodiversity (EO1)</p> <ul style="list-style-type: none"> - Key findings (introductory paragraph) - Background information on Habitats and Species, including trends and sources of pressure - Methodology: Common Indicators used in the assessment (CI 1-5) and assessment methodology - Integrated Assessment for EO1 - Specific issues/trends per selected CI/taxa/main species (possibly in the form of box) - Analysis and conclusions <p>2.2.2 Non-indigenous Species (EO2)</p> <ul style="list-style-type: none"> - Key findings (introductory paragraph) - Background information on NIS, including trends and sources of pressure 	<p>See explanation above of structure per cluster and per EO sub-section.</p> <p>Section 2.2.1 (EO1) will include background information on habitats and species, which should refer to trends and sources of pressure, the status of knowledge on every concerned habitat / species group across Mediterranean countries/sub-regions.</p> <p>Section 2.2.1 should present one integrated assessment per component of biodiversity (e.g., one assessment for habitats, one for marine mammals, one for seabirds, one for marine turtles)</p> <p>Section 2.2.2 (EO2) will be based mainly on the results of the baseline assessment of NIS and the national lists shared by the Contracting Parties, with possible contribution from the results of</p>

<ul style="list-style-type: none"> - Methodology: Common Indicators used in the assessment (CI 6) and assessment methodology - Integrated Assessment for EO2 - Specific issues/trends per species/main sources/hotspots/most vulnerable areas to NIS (possibly in the form of box) - Analysis and conclusions <p style="color: green;">2.2.3 Harvest of commercially exploited fish and shellfish (EO3)</p> <ul style="list-style-type: none"> - Key findings (introductory paragraph) - Background information on commercial fisheries and trends - Methodology: Common Indicators used in the assessment (CI 7-12) and assessment methodology - Integrated Assessment for EO3 - Specific issues/trends per selected CI/species (possibly in the form of box - tbc) - Analysis and conclusions <p style="color: green;">2.2.4 Elements for Marine Food Webs (EO4) and Sea-floor integrity (EO6) (<i>NEW</i>)</p> <ul style="list-style-type: none"> - EO4 <ul style="list-style-type: none"> - Key issues and sources of pressure - State of the art on data, monitoring and assessment - Preliminary assessment for EO4 and conclusions - EO6 <ul style="list-style-type: none"> - Key issues and sources of pressure - State of the art on data, monitoring and assessment - Preliminary assessment for EO6 and conclusions 	<p>sub-regional pilots. The geographical scope of the data and scales used will be clearly presented in the methodology sub-section. A special box could be added to describe the sub-regional pilots and joint monitoring efforts. The section on specific issues/trends may provide trends per taxonomic group or eco-functional group of species, and will include a focus on main sources, hotspots, and most vulnerable areas to NIS, as well as a reference to the establishment of regional and sub-regional list of invasive species to be monitored.</p> <p>Section 2.2.3 (EO3) will be prepared with support from GFCM based on their database. A clear link will be provided between CI 12 (By-catch of vulnerable and non-target species) to CI 2 (Condition of the habitat's typical species and communities) and CI 5 (Population demographic characteristics). The conclusions will include focus on commercial species that are listed in Annex III of the Barcelona Convention Protocol concerning Specially Protected Areas and Biological Diversity in the Mediterranean ("Species whose exploitation is regulated").</p> <p>Section 2.2.4 (EO4 and EO6) relates to Ecological Objectives for which Common Indicators have not been developed yet, and will be advanced during the 2020-2021 and 2022-2023 biennia. In the absence of IMAP monitoring data for these two EOs, the section could build on and reflect available data sources identified and approved through CORMONs, available technologies and techniques for monitoring, provide a preliminary assessment to the extent possible, and draw conclusions and recommendations for further monitoring and assessment of EO4 and EO6 (and if possible, recommendations for measures based on identified key issues/pressures related to these EO).</p> <p>Explore the possibility for including seafloor integrity, recognizing the EO6 is under development, with clear links between the common indicators fact sheet, to undertake assessment for the biodiversity component, i.e., for species.</p>
<p style="color: brown;">2.3 Coast and Hydrography Cluster</p> <p style="color: brown;">2.3.1 Hydrography (EO7)</p>	<p>See explanation above of structure per cluster and per EO sub-section.</p>

<ul style="list-style-type: none"> - Key findings (introductory paragraph) - Background information on Hydrography, including trends and sources of pressure - Methodology: Common Indicators used in the assessment (CI 15) and assessment methodology <ul style="list-style-type: none"> - Specific issues/trends per habitat or type of pressure (possibly in the form of box - tbc) - Analysis and conclusions <p>2.3.2 Coastal ecosystems and landscapes (EO8)</p> <ul style="list-style-type: none"> - Key findings (introductory paragraph) - Background information on Coastal ecosystems, including trends and sources of pressure (a box on climate change and coastal erosion could be added) - Methodology: Common Indicators used in the assessment (CI 16) and assessment methodology, CCI25 could be presented in a separate box to update on its status 	<p>A box on innovative coastal products and data collection and assessment methods and technologies could be added (e.g., Copernicus, EMODnet, Marinomica)</p> <p>Strengthen the link between hydrography and biodiversity, particularly regarding habitats Due to the high complexity of this Common Indicator, a baseline assessment may be conducted at this stage.</p>
<p>2.4 Towards an integrated assessment of GES in the Mediterranean</p>	<p>Depending on level of progress on UNEP/MAP integrated assessment methodologies, this section could propose a brief DPSIR-based integrated GES assessment of the Mediterranean Sea and Coast and cumulative pressures and impacts; or describe current efforts and status of progress on developing these methodologies, and summarize key pressures, overall state and impacts based on the assessments provided in sections 2.1-2.3.</p>
<p>3. UNEP/MAP Actions and Measures to Address Pressures and Protect the Mediterranean Sea and Coast</p>	<p><i>(NEW)</i> This section could include an analysis of existing measures and actions undertaken at the regional level in the Mediterranean as part of MAP Barcelona Convention, to address specific pressures and improve the status of the Sea and Coast in relation to the Ecological Objectives and Common Indicators under IMAP. An analysis of the effectiveness of the measures could be proposed (at least briefly).</p> <p>Boxes could focus on specific achievements to be highlighted (e.g., SPAMI, SOx ECA, Pollution and Marine Litter Regional Plans, Key Species and Habitats Regional Action Plans, ICZM/CRF). This section could highlight in particular efforts for integrated ecosystem management.</p>
<p>4. Conclusions and ways forward/future outlook</p> <p>4.1 Key issues, risks and priorities</p>	<p>This section could provide a summary of main issues identified in the QSR through the assessment, and an analysis of overall status and</p>

<p>4.2 Recommendations for priority actions/measures</p> <p>4.3 Recommendations for future monitoring and assessment</p>	<p>trends based on the assessment, as well as possible future risks, if no action is taken. It should then include recommendations on possible priority areas of action and measures to be developed to address key pressures and drivers. This part can also highlight some ongoing and planned efforts identified as particularly effective (e.g., SOx ECA). Finally, it should identify key challenges and provide recommendations in relation to data gaps to be addressed for the next QSR (2029) and monitoring and assessment methods.</p>
<p>Annexes</p> <p>List of IMAP EOs and CIs Species list Marine habitats list Sub-regional case studies Other Annexes tbd</p>	<p>The Annexes will include any additional useful information, such as the list of IMAP EOs and CIs, if not included in the introduction; list of key species and habitats considered; specific case studies (if not included in boxes inside the thematic chapters) etc.</p>
<p>Glossary</p>	<p>For the printed publication – online this can be replaced by the menu or tabs on the landing 2023 MED QSR page.</p>
<p>References</p>	<p>For the printed publication – online this can be replaced by the menu or tabs on the landing 2023 MED QSR page, or at bottom of each section/page.</p>
<p>Illustrations/photo credits</p>	<p>For the printed publication – online this can be replaced by the menu or tabs on the landing 2023 MED QSR page, or at bottom of each section/page.</p>

Table 3
Partners identified for contribution to the 2023 MED QSR preparation

Scientific Institution/Authority holding the data	Initiative / Project	Type of contribution	Geographical coverage	Possible contribution to IMAP Ecological Objectives / Common Indicators
ACCOBAMS	ACCOBAMS Survey Initiative	Distribution and abundance of cetaceans, sea turtles, elasmobranches, fish, birds	Mediterranean	CI 3 Species distribution CI 4 Population abundance
		Distribution and abundance of floating marine litter	Mediterranean	CI 23 Litter in the water column
	QuietMED II	Underwater noise	?	CCI 26, CCI 27 Underwater Noise
Birdlife Europe and Central Asia		Data on seabirds	Mediterranean	CI 3 (Species Distribution) and CI 4 (Population abundance) related to seabirds
Centre of Documentation, Research and Experimentation on accidental water pollution (CEDRE)				
CEFE-EPHE PSL	INDICIT-I and INDICIT-II Projects	marine litter ingestion data	Mediterranean	CCI 24 Litter Ingestion
CENER21 Center for Energy, Environment and Resources				
CMCC		Climate change data and modeling tools	Mediterranean	Section 1.1.2 Climate change Multiple Common Indicators
CIESM	Historical Records of Marine Fauna	Biodiversity data	Mediterranean	CI 1-5
	Atlas of Exotic Species	non-indigenous species	Mediterranean	CI 6 Non-indigenous species
EC Joint Research Centre (JRC)		Assessment criteria; assessment methodologies (MSFD and IMAP)	Mediterranean	Multiple Common Indicators
EEA	Copernicus Marine Service (CMEMS)	Chlorophyll a Temperature, Salinity, Sea level, Heat content, Significant Wave Height Variability	Mediterranean	Section 1.1 Environmental characteristics EO 5 Eutrophication (CI 13-14)
	Copernicus Land Monitoring Service (CLMS)	Land use, land cover, land use change, land cover change	Northern shores of Mediterranean - possible expansion to southern shores	Section 1.2 Human activities EO 7 Hydrography (CI 15) EO 8 Coastal ecosystems (CI 16, CCI 25)
EMODnet	Bathymetry	bathymetry	Mediterranean	EO 6 Seafloor integrity
	Biology	Species occurrences: location, date, depth Biological	Mediterranean	EO 1 Biodiversity (CI 1-5)

		measurements: e.g., abundance, biomass Sampling information and methodology Specimen characteristics: e.g., length, lifestage, sex Abiotic parameters: e.g., sediment type, temperature, salinity		
	Chemistry	Acidity Antifoulants Chlorophyll Dissolved gasses Fertilisers Heavy metals Hydrocarbons Marine litter Organic matter Pesticides and biocides Polychlorinated biphenyls Radionuclides Silicates	Mediterranean	EO 5 Eutrophication (CI 13-14) EO 9 Pollution (CI 17-21)
	Geology	Sedimentation rate	Mediterranean	EO 6 Seafloor integrity
	Human Activities	Data on maritime activities	Mediterranean	Section 1.2 Socioeconomic characteristics of the Med
	Physics	Water temperature Water salinity Water conductivity Currents and winds Optical properties Sea level Underwater noise (dB)	Mediterranean	Section 1.1 Environmental characteristics CCI 26, CCI 27 Underwater Noise
	Seabed Habitats – EUSeaMap	EUNIS Seabed Habitats	Mediterranean	CI 1 Habitat distributional range
ESA	EOP-SD (Earth Observation Programme Data Applications) Division and the EOP-SI (Earth Observation Programme Sustainable Initiatives) Office	Use of products of ESA MED REGIONAL Initiative/projects, including the following: -Multi-mission high-resolution, gap-free maps directly derived from water quality products (e.g., Chl-a concentration, Total Suspended Matter, Turbidity, ...) - Multi-mission, high-resolution, gap-free maps of experimental EO “indirectly” derived water quality products (e.g., nutrient concentration,		Multiple Common Indicators

		bacteriological concentration, dissolved oxygen, or any parameter relevant to the engaged end-users...) -Multi-mission added-value product of river plume extension and characteristics, as well as other available maps of relevance for IMAP EOs -The products related to application of forecasting techniques-		
FAO/GFCM	Data Collection Reference Framework (DCRF)	Global figures of national fisheries (number of vessels, total landing, total capacity, total engine power) Catch Incidental catch of vulnerable species Fleet Effort Socio-economics Biological information	Mediterranean	Section 1.2 Socioeconomic characteristics of the Med EO 3 Fisheries (CI 7-12) EO 4 Food webs (partially) EO 6 Seafloor integrity EO 10 Marine litter EO 11 Underwater noise
INOGS	Harmonia	Contaminants in the Adriatic-Ionian sub-region	Adriatic-Ionian sub-region	CI 17, 18, 19, 20, 21
HCMR (host)	MedOBIS	Non-indigenous species	Mediterranean	CI 6 Non-indigenous species
HCMR	MED REGION	methodologies for marine monitoring and assessment for the Mediterranean	Mediterranean	All CIs, especially CI 13, 14, 17, 18, 19, and CCI 24
IAEA			Mediterranean	Multiple Common Indicators
IUCN Mediterranean			Mediterranean	Multiple Common Indicators
ICES	ICES has published work (June 2021)	Distribution of fishing pressure, including a preliminary compilation of data for the Mediterranean.	Mediterranean	EO6
MAVA Foundation		Biodiversity data	Mediterranean	Biodiversity-related Common Indicators
Medasset		Sea turtles-related data and methodologies	Mediterranean	CI 3 (Species distribution) and CI 4 (Population abundance) for sea turtles
MEDPAN			Mediterranean	
MIO-ECSDE		Marine litter data and methodologies	Mediterranean	CI 22, 23, CCI 24
University of Siena	Plastic Busters MPAs	marine litter data	Mediterranean	CI 22, 23, CCI 24

UN Decade of Ocean Science		Science-Policy Interface, Mediterranean priorities related to monitoring, assessment, climate change	Mediterranean	Multiple Common Indicators
UNEP-WCMC	Data portal	Biodiversity data	Not specified	Biodiversity-related indicators
University of Malaga	MedBioLitter	Interaction between marine litter and biota	Mediterranean	CCI 24 Litter ingestion/entanglement
WWF Mediterranean			Mediterranean	

Annex III
2023 MED QSR Communication and Visibility Strategy

Communication and Visibility Strategy for the 2023 Mediterranean Quality Status Report

1. Introduction

1. This Communication and Visibility Strategy for the 2023 Mediterranean Quality Status Report (MED QSR) is developed in line with the UNEP/MAP Operational Communication Strategy, Activity 1.1.1, which provides for the development of a communication pack for MAP flagship publications, including the 2023 MED QSR.

2. Overall Objective

2. The overall objectives of the 2023 MED QSR Communication and Visibility Strategy are to:

- Ensure that the 2023 MED QSR publication has a wide dissemination and receives a high level of visibility;
- Promote the findings of the 2023 MED QSR on the status of the Mediterranean Sea and Coast, in order to support evidence-based marine and coastal management, and advocate policies and measures based on this enhanced knowledge to underpin efforts aimed at achieving GES.

3. The achievement of these objectives will be measured through a range of specific indicators, as detailed below:

Objective	Indicators of success
Ensure that the 2023 MED QSR publication receives a high level of visibility	<ul style="list-style-type: none"> • Number of speaking engagements on the 2023 MED QSR by MAP representatives in conferences and events pertaining to environment and development • Total number of recipients targeted by MAP-initiated communication activities • Aggregated download metrics of the 2023 MED QSR from the dedicated website • Prominence of 2023 MED QSR in Google search results with the key words: Mediterranean+ environment+ assessment (the 2023 MED QSR should appear in the first 20 results returned by Google). • Number of press clippings and prominence (circulation/following of media organizations reporting on or quoting from the 2023 MED QSR) of media material citing and/or using content, findings, and/or messages from the 2023 MED QSR
Promote the findings and key messages of the 2023 MED QSR	<ul style="list-style-type: none"> • Number and size (i.e., number of participants) of outreach events in key policy fora attended by decision-makers in Mediterranean countries where 2023 MED QSR messages are disseminated. • Number of stakeholders and decision makers informed about the 2023 MED QSR findings; • 2023 MED QSR messages appear in statements by Ministers of the Environment and other decision-makers in Mediterranean countries • 2023 MED QSR messages appear in partners and other stakeholders' statements/interventions/presentations around the Mediterranean

3. Target Groups

4. Target groups have been identified as relevant for the communication and visibility activities of the 2023 MED QSR: decision-makers; experts/scientists; multipliers (non-media); conventional media; and social media. The list may include the following:

- Contracting Parties to the Barcelona Convention
- UN Country Teams in Mediterranean countries
- Mediterranean countries' Permanent missions to the UN in New York, Geneva, Nairobi, and Athens
- Members of environment and development commissions in the Parliaments of the Mediterranean countries
- UN Global Compact network offices in the Mediterranean region
- the General Fisheries Commission for the Mediterranean – GFCM
- UfM fora
- World Bank, GEF, EBRD, EIB and other financial institutions
- MAP partners
- Local / elected authorities in Mediterranean coastal cities
- SciDev MENA Network
- Other regional (Mediterranean) projects, institutions, networks, initiatives and processes (e.g., MedProgramme, MEDREGION, QuietMED II, INDICIT II).
- Other Intergovernmental Organizations and relevant Conventions/Agreements (e.g., the Convention on Biological Diversity (CBD), General Fisheries Commission for the Mediterranean (FAO/GFCM), UNESCO-IOC).
- UN Decade on Ocean Science for Sustainable Development and its actors
- Projects, in line with the suggested themes
- etc.

Experts/Scientists

- Scientific community

Conventional Media

- UNEP/MAP contact list, including news agencies in Mediterranean countries
- RACs media contacts
- Media representatives at Palais des Nations via UNEP Geneva press office
- International and regional media outlets offering an Environment section
- Africa 21 and network of Maghreb journalists
- Networks of green journalism

Social media

- Users of social platforms with an interest in environment and development issues in the Mediterranean region

4. Other aspects

- The 2023 MED QSR will receive an ISBN as UNEP publication; UNEP broadcasting resources must be harnessed to maximize visibility.
- Focus on the Key Findings of the 2023 MED QSR in all communication activities.
- Create a topical and clear hashtag: (to be defined; possible examples include #2023MEDQSR and #MedReport2023).

- Enlist members of the wider MAP-Barcelona Convention system “community”, including MAP partners and MCSD members, to promote the 2023 MED QSR at all relevant events/conferences with a view to advancing reflections and dialogue based on evidence (provided by the 2023 MED QSR).
- Provide visibility to the overall Ecosystem Approach implementation process in the region ensuring coherence and continuity of communication with related past and ongoing projects funded by the EU (e.g., EcAp MED III, Marine Litter MED II, IMAP MPA and MedProgramme) and other relevant UNEP/MAP initiatives and projects within the UNEP/MAP Communication Strategy as well as UNEP Regional Seas work on ecosystem approach implementation at global level.

Annex IV
2021 Baseline Values and Threshold Values for IMAP Common Indicator 22

Table 1: 2021 Baseline Values and Threshold Values for IMAP Common Indicator 22

IMAP Indicators	Categories of Marine Litter	2016 Baseline Values	2021 Baseline Values	2021 Threshold Values
Common Indicator 22	Beach Marine Litter	450-1400 items/100m	369 items/100m	130 items/100m

Annex V

Guidance fact sheet for the IMAP Common Indicator 6 related to Non-Indigenous Species

I. Introduction and objectives

1. The IMAP Common Indicator Guidance Factsheets share a common template, which is illustrated in Table 1 below. The information gathered in the frame of the “Study on trends and outlook of marine pollution from ships and activities and of maritime traffic and offshore activities in the Mediterranean”, and the additional documents consulted, enabled to update the different sections of the factsheets that were discussed with the members of the informal Online Working Group (19 April 2021).

Table 1. Template of IMAP Common Indicator Guidance Factsheets

Indicator Title			} IMAP Reference No and definition
Relevant GES definition	Related Operational Objective	Proposed Target(s)	
Rationale			} Scientific rationale and marine policy context (including relevant references)
Justification for indicator selection			
Scientific References			
Policy Context and targets			
Policy context description			
Targets			
Policy documents			
Indicator analysis methods			} Agreed scientific methodologies in use, including detailed monitoring requirements
Indicator Definition			
Methodology for indicator calculation			
Indicator units			
List of Guidance documents and protocols available			
Data Confidence and uncertainties			
Methodology for monitoring, temporal and spatial scope			
Available Methodologies for Monitoring and Monitoring Protocols			
Available data sources			
Spatial scope guidance and selection of monitoring stations			
Temporal Scope guidance			} Data reporting, analysis and aggregation (output)
Data analysis and assessment outputs			
Statistical analysis and basis for aggregation			
Expected assessments outputs			
Known gaps and uncertainties in the Mediterranean			} Document Registration
Contacts and version Date			
Key contacts within UNEP for further information			
Version No	Date	Author	

2. The revised Guidance Factsheet of CI6 is reproduced in the Sections II in highlights and strikethrough.

II. Revision of the Guidance Factsheet of CI6

Indicator title	Common Indicator 6: Trends in abundance, temporal occurrence, and spatial distribution of non-indigenous species (NIS) particularly invasive, non-indigenous species notably in risk areas (EO2, in relation to the main vectors and pathways of spreading of such species)	
Relevant GES definition	Related Operational Objective	Proposed Target(s)
Decreasing abundance of introduced NIS in risk areas	Invasive NIS introductions are minimized	Abundance of NIS introduced by human activities reduced to levels giving no detectable impact.
Rational		
<p>Justification for indicator selection</p> <p>Marine invasive alien species¹ are regarded as one of the main causes of biodiversity loss in the Mediterranean, potentially modifying all aspects of marine and other aquatic ecosystems. They represent a growing problem due to the unprecedented rate of their introduction and the unexpected and harmful impacts that they have on the environment, economy and human health. According to the latest regional reviews, more than 6% of the marine species in the Mediterranean are now considered non-native species as around 1000 alien marine species have been identified. Around 12% of all of NIS in the Mediterranean are today considered as invasive, or potentially invasive (Rotter et al., 2020)². Macrophytes (macroalgae and seagrasses) are the dominant NIS group in the western Mediterranean and Adriatic Sea. Polychaetes, crustaceans, molluscs and fishes are the dominant NIS group in the eastern as well as algae for the central Mediterranean (Zenetos et al., 2010, 2012). Although the highest alien species richness occurs in the eastern Mediterranean, ecological impact shows strong spatial heterogeneity with risk areas in all Mediterranean sub-basins (Katsanevakis et al. 2016). Besides, these numbers should be modulated acknowledging that there is no exhaustive knowledge (neither standard monitoring) of all introduced species in most areas of the Mediterranean Sea.</p> <p>To mitigate the impacts of NIS on biodiversity, human health, ecosystem services and human activities there is an increasing need to take action to control biological invasions. With limited funding, it is necessary to prioritise actions for the prevention of new invasions and for the development of mitigation measures. This requires a good knowledge of the impact of invasive species on ecosystem services and biodiversity, their current distributions, the pathways of their introduction, and the contribution of each pathway to new introductions.</p> <p>Common indicator 6 is a trend indicator that summarizes data related to biological invasions in the Mediterranean into simple, standardized and communicable figures and is able to give an indication of the degree of threat or change in the marine and coastal ecosystem. Furthermore, it can be a useful indicator to assess on the long-run the effectiveness of management measures implemented for each pathway but also, indirectly, the effectiveness of the different existing policies targeting alien species in the Mediterranean Sea.</p> <p>However, the overall ecological impact of NIS on the Mediterranean Sea remains relatively difficult to quantify, and its evaluation is mainly qualitative; nevertheless, there have been some good attempts at quantification (Katsanevakis et al., 2014, 2016; Gallardo et al., 2016). In particular, the analyses of</p>		

¹ Invasive alien species (IAS) are a subset of established NIS which have spread, are spreading, or have demonstrated their potential to spread elsewhere, and which have an effect on biological diversity and ecosystem functioning (by competing with and on some occasions replacing native species), socio-economic values, and/or human health in invaded regions. (Decision IG.22/7)

Katsanevakis et al. (2014) have led to the conclusion that the majority of the recognized invasive species in the European seas (72%) have both positive and negative effects on the native ecosystem.

To take effective actions against biological invasion, knowledge about the-vectors and associated pathways of introduction of NIS is crucial. Corridors and shipping represent the main pathway of introduction for NIS in the Mediterranean, though the relative importance of pathways vary among individual countries and current knowledge on vectors and pathways.

Scientific References

Galil BS, Marchini A, Occhipinti-Ambrogi A, Minchin D, Narščius A, Ojaveer H, Olenin S. (2014). International arrivals: widespread bioinvasions in European Seas. *Ethol Ecol Evol.* 26(2–3):152–171. doi:10.1080/03949370.2014.897651.

Galil BS., Agnese Marchini and Anna Occhipinti-Ambrogi (2018). Mare Nostrum, Mare Quod Invaditur—The History of Bioinvasions in the Mediterranean Sea. In: Queiroz Ana Isabel & Simon Pooley Eds. Editors. *Histories of Bioinvasions in the Mediterranean.* Springer.

Gallardo, B., Clavero, M., Sánchez, M. I., and Vilà, M. (2016). Global ecological impacts of invasive species in aquatic ecosystems. *Glob. Chang. Biol.* 22, 151–163. doi: 10.1111/gcb.13004

Katsanevakis, S., Wallentinus, I., Zenetos, A., Leppäkoski, E., Çinar, M. E., Oztürk, B., et al. (2014). Impacts of marine invasive alien species on ecosystem services and biodiversity: a pan-European review. *Aquat. Invas.* 9, 391–423. doi: 10.3391/ai.2014.9.4.01

Katsanevakis, S., Tempera, F., Teixeira, H., 2016. Mapping the impact of alien species on marine ecosystems: the Mediterranean Sea case study. *Diversity and Distributions* 22, 694–707.

REMPEC (2020). Study on trends and outlook of marine pollution from ships and activities and of maritime traffic and offshore activities in the Mediterranean”.

Rotter Ana, Klun Katja, Francé Janja, Mozetič Patricija, Orlando-Bonaca Martina (2020). Non-indigenous Species in the Mediterranean Sea: Turning from Pest to Source by Developing the 8Rs Model, a New Paradigm in Pollution Mitigation. *Frontiers in Marine Science* 7: 178. 10.3389/fmars.2020.00178

Zenetos A., Gofas, S., Verlaque, M., Cinar, M. E., García Raso, E., et al., 2010. Alien species in the Mediterranean Sea by 2010. A contribution to the application of European Union’s Marine Strategy Framework Directive (MSFD). Part I. Spatial distribution. *Mediterranean Marine Science*, 11, 2, 381-493.

Zenetos A., Gofas, S., Morri, C., Rosso, A., Violanti, D., et al., 2012. Alien species in the Mediterranean Sea by 2012. A contribution to the application of European Union’s Marine Strategy Framework Directive (MSFD). Part 2. Introduction trends and pathways. *Mediterranean Marine Science*, 13/2, 328-352.

Policy Context and targets (other than IMAP)

Policy context description

The Convention on Biological Diversity (CBD) recognised the need for the “compilation and dissemination of information on alien species that threaten ecosystems, habitats, or species to be used in the context of any prevention, introduction and mitigation activities”, and calls for “further research on the impact of alien invasive species on biological diversity” (CBD, 2000). The objective set by Aichi Biodiversity Target 9 is that “by 2020, invasive alien species and pathways are identified and prioritized, priority species are controlled or eradicated, and measures are in place to manage pathways to prevent their introduction and establishment”. This is also reflected in Target 5 of the EU Biodiversity Strategy (EU 2011). The EU Regulation 1143/2014 on the management of invasive alien species seeks to address the problem of IAS in a comprehensive manner so as to protect native biodiversity and ecosystem services, as well as to minimize and mitigate the impacts that these species can have on the human health

or economy. The Regulation foresees three types of interventions; prevention, early detection and rapid eradication, and management and includes a list of 66 (as per second update) Invasive Alien Species (IAS) of European concern for which direct management measures are solicited.

The Marine Strategy Framework Directive (MSFD), which is the environmental pillar of EU Integrated Maritime Policy, sets as an overall objective to reach or maintain “Good Environmental Status” (GES) in European marine waters by 2020. It specifically recognizes the introduction of marine alien species as a major threat to European biodiversity and ecosystem health, requiring Member States to include alien species in the definition of GES and to set environmental targets to reach it. Hence, one of the 11 qualitative descriptors of GES defined in the MSFD is that “non-indigenous species introduced by human activities are at levels that do not adversely alter the ecosystem” (Descriptor 2).

The updated EU Decision 2017/848, defined a set of Criteria, including criteria elements, and methodological standards are defined, for each descriptor. Under descriptor 2, the following criteria are defined 1) Newly introduced non-indigenous species, 2) Established non-indigenous species, particularly invasive non-indigenous species, which include relevant species on the list of invasive alien species of Union concern adopted in accordance with Article 4(1) of Regulation (EU) No 1143/2014 and species which are relevant for use under criterion D2C3.

Member States shall establish that list through regional or subregional cooperation and 3) Species groups and broad habitat types that are at risk from non-indigenous species, selected from those used for Descriptors 1 and 6. Although Ecological Objective 2 and the Common Indicator 6 were in line with the MSFD descriptor 2 objectives and targets, defined in the EU Decision 2010/477/EU, there is significant difference with the update directive 2017/848. Assessment of CI6 is complementary to first two criteria under D2, however, no assessment of adverse impacts on species and habitats is yet elaborated under IMAP.³

Indicator/Targets

Aichi Biodiversity Target 9

EU Biodiversity Strategy Target 5

EU Regulation 1143/2014 targets

MSFD Descriptor 2 and related criteria, indicators and environmental targets

Policy documents

Aichi Biodiversity Targets - <https://www.cbd.int/sp/targets/>

Action Plan concerning Species Introductions and Invasive Species in the Mediterranean Sea. UN Environment/MAP Athens, Greece 2017.

https://www.racspa.org/sites/default/files/action_plans/pa_alien_en.pdf

EU Biodiversity Strategy - https://ec.europa.eu/environment/strategy/biodiversity-strategy-2030_en#ecl-inpage-324

Marine Strategy Framework Directive - <http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32008L0056&from=EN>

Commission Decision EU 2017/848 laying down criteria and methodological standards on good environmental status of marine waters and specifications and standardised methods for monitoring and assessment, and repealing Decision 2010/477/EU - <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32017D0848&from=EN>

EU Regulation 1143/2014 - <http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32014R1143&from=EN>

³ Text amended to reflect the latest EU Decisions

Indicator analysis methods

General definitions (according to Decision IG.22/7 on Integrated Monitoring and Assessment Programme of the Mediterranean Sea and Coast and Related Assessment Criteria)

‘Non-indigenous species’ (NIS; synonyms: alien, exotic, non-native, allochthonous) are species, subspecies or lower taxa introduced outside of their natural range (past or present) and outside of their natural dispersal potential. This includes any part, gamete or propagule of such species that might survive and subsequently reproduce. Their presence in the given region is due to intentional or unintentional introduction resulting from human activities. Natural shifts in distribution ranges (e.g. due to climate change or dispersal by ocean currents) do not qualify a species as a NIS. However, secondary introductions of NIS from the area(s) of their first arrival could occur without human involvement due to spread by natural means.

‘Invasive alien species’ (IAS) are a subset of established NIS which have spread, are spreading or have demonstrated their potential to spread elsewhere and have an effect on biological diversity and ecosystem functioning (by competing with and on some occasions replacing native species), socioeconomic values and/or human health in invaded regions. Species of unknown origin which cannot be ascribed as being native or alien are termed cryptogenic species. They also may demonstrate invasive characteristics and should be included in IAS assessments.

In order to provide basis for development of relevant policies to address NIS, assessment of pathways of introduction is needed.

Indicator Definition

For the needs of Common Indicator 6, the following definitions apply:

- ‘Trend in abundance’ is defined as change between assessment periods in the estimated population density/ranks of a non-indigenous species in a specific marine area.
- ‘Trend in temporal occurrence’ is defined as the change between assessment periods in the estimated number of new introductions and the total number of non-indigenous species in a specific country or preferably the national part of each subdivision, preferably disaggregated by pathway of introduction.
- ‘Trend in spatial distribution’ is defined as change of the total marine ‘area’ occupied by non-indigenous species. This area should be defined according to the scale of assessment.

In order for this trend indicator to become operational, at least two assessment periods of relevant data are necessary, in order to allow a minimal comparison of two annual datasets.

Methodology for indicator calculation

To estimate Common Indicator 6, a trend analysis (time series analysis) of the available monitoring data needs to be performed, aiming to extract the underlying pattern of NIS number variability over time, which may be hidden by noise. A formal regression analysis is the recommended approach to estimate such trends. This can be achieved through a simple linear regression analysis or through more sophisticated modelling tools (when extensive datasets are available), such as the generalized linear or additive models (GLM/GAM). See details in document “*Scales of monitoring & assessment, assessment criteria and thresholds values of the IMAE EO2/CI6: non-indigenous species*”

Indicator units

‘Trends in abundance’: absolute value and % change per assessment period

‘Trends in temporal occurrence’: number and % change in new introductions or number and % change in the total number of alien species per assessment period.

‘Trends in spatial distribution’: absolute value and % change in the total marine surface area occupied or absolute value and % change in the length of the occupied coastline (in the case of shallow-water species that are present only in the coastal zone).

List of guidance documents and protocols available

As provided for in the Decision IG.23/6 on the 2017 MED QSR (COP 20, Tirana, Albania, 17-20 December 2017), Monitoring Protocols for IMAP Common Indicator related to Non-Indigenous species were approved by the 7th Meeting of the Ecosystem Approach Coordination Group (Athens, Greece, 9 September 2019)⁴.

Consistent NIS monitoring protocols are already implemented in many Mediterranean countries, in relation to several monitoring obligations linked with the Ballast Water Convention, the EU Water Framework Directive, and the EU Marine Strategy Framework Directive, and as provided by specialised agencies or institutions (e.g. IUCN for MPAs, CIESM). These methods may be useful to complement the estimation of Common Indicator 6.

Several guidelines for NIS monitoring and assessment are available at: European and Regional Sea conventions https://mcc.jrc.ec.europa.eu/main/dev.py?N=20&O=407&titre_chap=D2%20Non-indigenous%20species&titre_page=Monitoring%20&%20assessment (accessed 13/04/2021). Some guidance on the monitoring of biodiversity (including for monitoring non-indigenous species) within the context of the MSFD is provided in:

- Zampoukas et al. (2014) Technical guidance on monitoring for the Marine Strategy Framework Directive;
- JRC Scientific and Policy Reports (EUR collection), Publications Office of the European Union, EUR 25009 EN – Joint Research Centre, doi: 10.2788/70344, ISBN: 978-92-79-35426-7, 166p;
- Olenin, S., Alemany, F., Cardoso, A.C., Gollasch, S., Gouletquer, P., Lehtiniemi, M., McCollin, T., Minchin, D., Miossec, L., Ambrogi, A.O. and Ojaveer, H., 2010. Marine Strategy Framework Directive–Task Group 2 Report–Non-indigenous Species, vol. 10.

HELCOM (Helsinki Commission, the RSC for the Baltic Sea) has published online guidance notes for the application of eRAS (extended Rapid Assessment Survey) in the monitoring of NIS (<https://helcom.fi/media/publications/Guidelines-for-monitoring-of-non-indigenous-species-by-eRAS.pdf>)

The EU Project BALMAS has provided guidelines for the monitoring of NIS in ballast water:

- David M. and Gollasch S. 2015. BALMAS Ballast Water Sampling Protocol for Compliance Monitoring and Enforcement of the BWM Convention and Scientific Purposes. BALMAS project, Korte, Slovenia, Hamburg, Germany. 55 pp

Data confidence and uncertainties

The trend analysis should be accompanied by an evaluation of confidence and uncertainties. Standard regression methods (simple linear regression, generalized linear or additive models, etc.) provide estimates of uncertainty (standard errors and confidence intervals of estimated trends). Such uncertainty estimates should accompany all reported trends. Only long-term follow-ups of all the relevant parameters (states and pressures), will ultimately make it possible to precisely quantify the GES and gradually reduce the amount of uncertainty between the changes due to natural variations and those resulting from anthropogenic pressures.

⁴ UNEP/MED WG.467/16, Monitoring Protocols for IMAP Common Indicators related to Biodiversity and Non-Indigenous species.

Furthermore, the issue of imperfect detectability should be properly addressed, as it may cause an underestimation of the relevant state variables (abundance, occupancy, geographical range, species richness). Many available methods properly tackle the issue of imperfect detection when monitoring biodiversity, by jointly estimating detectability (see Katsanevakis et al. 2012 for a review).

Methodology for monitoring, temporal and spatial scope

Available methodologies for monitoring and monitoring protocols

It is recommended to use standard monitoring methods traditionally being used for marine biological surveys, including, but not limited to plankton, benthic and fouling studies described in relevant guidelines and manuals. However, specific approaches may be required to ensure that alien species are likely to be found, e.g. in rocky shores, port areas and marinas, offshore areas and aquaculture areas.

As a complimentary measure and in the absence of an overall NIS targeted monitoring programme, rapid assessment studies may be undertaken, usually but not exclusively at marinas, jetties, and fish farms (e.g. Pederson et al. 2003). Besides, a review (as exhaustive as possible) of all scientific publications on (more or less) recent new introductions of species, besides the taxonomic status of these NIS, is pre-required to have the minimum basis of knowledge. This is also very often the main and only data sources for assessment when monitoring is not in place.

[With rigorous quality control in place, national and regional citizen science campaigns are ideal for NIS monitoring purposes. Members of local communities, due to their broad geographic distribution and familiarity with their natural environment, can in fact, be of great help to track invasive species in both terrestrial and aquatic systems (Delaney et al., 2008). A renewed drive to identify components of the natural world, through ‘bioblitz’⁵ events organized round the globe, is bolstering the interaction between formal scientists and informal/citizen ones, also through the availability of low-budget underwater photography and video-capture hardware on the market.]

For the estimation of Common Indicator 6, it is important that the same sites are surveyed each monitoring period, otherwise the estimation of the trend might be biased by differences among sites. The exact geographical location of each selected sampling station in both risk areas and MPAs should be recorded through GPS coordinates, so as to enable consistent sampling on successive occasions.

Standard methods for monitoring marine populations include plot sampling, distance sampling, mark-recapture, removal methods, and repetitive surveys for occupancy estimation (see Katsanevakis et al. 2012 for a review specifically for the marine environment).

To provide guidance to the Contracting Parties to the Barcelona on field methodologies for monitoring NIS CI6 in identified risk areas and MPAs, guidelines for monitoring NIS in the Mediterranean (UNEP/MED WG.467/16, 2019) was developed by reviewing recognised good practices in the field of NIS monitoring protocols:

1. UNEP/MED WG.467/16, 2019, Monitoring Protocols for IMA Common Indicators related to Biodiversity and Non-Indigenous species, 7th Meeting of the Ecosystem Approach Coordination Group, Athens, Greece, 9 September 2019. p.118-130
2. Katsanevakis S, et al., 2012. Monitoring marine populations and communities: review of methods and tools dealing with imperfect detectability. *Aquatic Biology* 16: 31–52.
3. Pederson J, et al., 2003 Marine invaders in the northeast: Rapid assessment survey of non-native and native marine species of floating dock communities, August 2003 (available in https://dspace.mit.edu/bitstream/handle/1721.1/97032/MITSG_05-3.pdf?sequence=1)

⁵ A BioBlitz is a celebration of biodiversity. It’s an event that focuses on finding and identifying as many species as possible in a specific area over a short period of time. Students, scientists, naturalists, and community members join together in these events to explore the natural world. Typically led by educators, scientists, or Park/MPA rangers, BioBlitzes are an opportunity to take a snapshot of the biodiversity of a place. Participants of all ages can learn techniques for observing and collecting data within a designated area and time frame.

Available data sources

Marine Mediterranean Invasive Alien Species database (MAMIAS) - <http://dev.mamias.org/> [Version Beta]

European Alien Species Information Network (EASIN) - <http://easin.jrc.ec.europa.eu/>

CIESM Atlas of Exotic Species in the Mediterranean - <http://www.ciesm.org/online/atlas/>

World Register of Introduced Marine Species (WRiMS) - <http://www.marinespecies.org/introduced>

Global Invasive Species Database - <http://www.iucngisd.org/gisd/>

CABI Invasive Species Compendium - <https://www.cabi.org/isc>

AquaNIS - <http://www.corpi.ku.lt/databases/index.php/aquanis>

For taxonomic status: World Register of Marine Species (WoRMS) - <http://www.marinespecies.org/>

NEMESIS - Smithsonian Environmental Research Center's National Estuarine and Marine Exotic Species Information System - <https://nemesis.nisbase.org/nemesis/>

Spatial scope guidance and selection of monitoring stations

[It is recommended that NIS surveys are conducted within both risk areas (harbours, ports, marinas, marine culture, etc.) and within vulnerable marine areas (where the environmental conditions promote the establishment of NIS) and Marine Protected Areas (MPAs).

Risk areas are defined as the most feasible entry/introduction points for NIS by virtue of:

- (i) a preliminary desk study which identifies particular site-specific features (e.g. a harbour frequented by a number of vessels at risk of introduction of NIS, or marine culture) or
- (ii) a high number and/or abundance of NIS already established within the confines of risk and vulnerable areas

Typically, Risk areas would include site typologies such as harbours, ports, yacht marinas, mariculture cages, offshore structures and thermal effluent discharge locations. Sites not necessarily in close proximity to these 'conventional' risk areas could also be considered within this same category, including locations subject to intense anchoring pressure during the tourist season.

In terms of NIS risk areas, UNEP/MAP (2019)⁶ recommends that NIS monitoring is conducted following the provided guidance at least in two risk areas locations per potential introduction pathway, most notably commercial shipping, recreational boating and aquaculture. The same report provides guidance in the form of criteria, which should be applied when selecting candidate hotspot locations, as follows:

- Past research has shown them to be hotspots for non-indigenous species that can be transported with the transport vector concerned;
- The species communities at the two risk areas have minimal direct influence each other;
- Vulnerable areas with prospects for invasion by new introductions.

In terms of MPAs, a minimum of two sampling stations per MPA are recommended, with the two stations being located within different management zones within the same MPA. In terms of the specific positioning of the two NIS monitoring stations within each MPA, it is recommended to ensure a high degree of geographical and ecological representability. This can be ensured in a variety of ways, including:

- a) opting for a minimum threshold of physical distance between the two sampling stations, expressed as a percentage of the total lateral extent of the MPA in question (e.g. the distance

⁶ UNEP/MED WG.467/16 Monitoring Protocols for IMA Common Indicators related to Biodiversity and Non-Indigenous species, 7th Meeting of the Ecosystem Approach Coordination Group, Athens, Greece.

between the two sampling stations should not be inferior to 25% of the total lateral extent of the MPA);

- b) opting for sampling stations dominated by different marine biocoenoses (e.g. algal-dominated rocky reef versus seagrass meadow);
- c) opting for sampling stations incorporated within anthropogenic or ecological features of interest, with potential candidates including wrecks (which are considered as promoting the establishment of NIS – e.g. Bariche [2012]), a benthic area heavily impacted by anchoring or a sea urchin barren.]

It is important to establish a network of monitoring sites at regional level in which common protocols are applied so that Common Indicator 6 can be assessed at national, sub-regional and regional levels.

The use of Habitat Suitability Models and Ecological Niche Modelling (ENM) may be considered at a later stage of IMAP to identify priority monitoring sites and to predict the spread of NIS.

A revision and agreement on the nested areas (bottom-up approach) is needed that includes integration of monitoring scales based on nested approach, proposing the list of monitoring and reporting units in the Mediterranean Sea. The geographical distribution of NIS, showing a higher presence in the Aegean and Levantine basin, should be taken into consideration when defining monitoring stations. The nested approach has to consider the differences in NIS occurrence in the different sub-basins.

Temporal Scope guidance

Sampling should be done on an annual / seasonal basis depending on the species group or target habitat's types. See details in document "Scales of monitoring & assessment, assessment criteria and thresholds values of the IMAP EO2/CI6: non-indigenous species".

Data analysis and assessment outputs

Statistical analysis and basis for aggregation

Standard statistics for regression analysis should be applied to estimate trends and their related uncertainties.

Expected assessments outputs

- Graphs of the time series of the calculated metrics (abundance, occurrence, spatial extent), including confidence intervals;
- Distribution maps of the selected NIS, highlighting temporal changes in their spatial distribution;
- National ~~annual~~ inventories (and also by the national part of each marine subdivision, if relevant) of non-indigenous species and respective year of introduction if known;
- National inventories clustering NIS according to main pathways of introduction (e.g. seaways, shipping, mariculture, etc.) if known;

Known gaps and uncertainties in the Mediterranean

The lack of regular dedicated and coordinated monitoring at national and regional scale implies a low confidence in the assessment of NIS, even if the continuous and regular occurring of new introductions are demonstrated.–

NIS identification is of crucial importance, and the lack of taxonomical expertise has already resulted in several NIS underestimated for certain time periods. The use of molecular approaches including bar-coding are sometimes needed to confirm the results of conventional taxonomic species identification.

Sampling effort currently greatly varies among Mediterranean countries and thus on a regional basis current assessments and comparisons may be biased.

Evidence for most of the reported impacts of alien species is weak, mostly based on expert judgement; a need for stronger inference is needed based on experiments or ecological modelling. The assessment of trends in abundance and spatial distribution is largely lacking.

Contacts and version Date

Key contacts within UNEP for further information

car-asp@spa-rac.org

Version No	Date	Author
V.1	20/07/2016	SPA/RAC
V.2	14/04/2017	SPA/RAC
V.3	30/09/2020	SPA/RAC-REMPEC

Annex VI
Elements for IMAP Data Policy

1. Elements for IMAP Data Policy

In view of the development of the specific IMAP Data Policy Annex, the present document is proposed as state of play of its development including a preliminary collection of the elements discussed during the following meetings:

- Ecosystem Approach Correspondence Group on Monitoring (CORMON), Biodiversity and Fisheries (Marseille, France, 12-13 February 2019);
- Ecosystem Approach Correspondence Group on Monitoring (CORMON), Pollution (Podgorica, Montenegro, 2-3 April 2019);
- Ecosystem Approach Correspondence Group on Monitoring (CORMON), Marine Litter (Podgorica, Montenegro, 4-5 April 2019);
- Ecosystem Approach Correspondence Group on Monitoring (CORMON), Biodiversity and Fisheries (Rome, Italy, 21 May 2019);
- Ecosystem Approach Correspondence Group on Monitoring (CORMON), Coast and Hydrography (Rome, Italy, 21-22 May 2019);
- Fourteenth Meeting of MED POL Focal Points (Istanbul, Turkey, 27-29 May 2019);
- Thirteenth Meeting of REMPEC Focal Points (Valletta, Malta 11- 3 June 2019);
- Fourteenth Meeting of SPA/BD Thematic Focal Points (Portorož, Slovenia, 18-21 June 2019).
- Integrated Ecosystem Approach Correspondence Group on Monitoring (CORMON), videoconference 1-3 December 2020.

1.2 IMAP Data availability

An important starting point is to agree about data to be considered suitable for the IMAP reporting as follows:

1.2.1 Testing phase data

The contribute of Contracting Parties into the **testing phase** of the IMAP Pilot Info System has been of utmost importance and has enabled detecting and sorting out arising issues. It has been also an asset for the first elaboration by INFO/RAC of a **Technical Guide**, an additional useful tool complementing the **User Guide**, already developed for the testing phase, to support the Contracting Parties in the IMAP process. Both guidelines can be downloaded at <http://imappilot.info-rac.org>.

The first **IMAP call is open** and includes both new monitoring data generated in **2020**, as well as available monitoring data collected **prior to 2020**, if their content is compatible with format required by the respective Data Standards and Data Dictionaries adopted for IMAP Common Indicators.

The IMAP Pilot Info System is ready to receive past and new data. **The uploaded testing files need control and validation by Countries.** To avoid new efforts and repetitions INFO/RAC needs confirmation by CPs about the nature of the data uploaded in the testing phase. CPs need to clarify which of the following options is valid for their data sets:

1. They are only **test data that are NOT for inclusion** into the IMAP Pilot Info System;
2. They are **official data** sent before the opening of the IMAP call, already **validated and to be considered eligible for inclusion** as part of mandatory reporting.

To facilitate CPs work, INFO/RAC has renamed the files. It is required to CPs to access the IMAP Pilot Info System at <http://imappilot.info-rac.org>, go to the section **Upload** and search and check the file belonging to their country whose name start with **“TEST”**.

- ✓ If the right **option is 1**, CP can **delete** the file;
- ✓ if data are in the **option 2**, press the validation bottom if the file is in **“Compliant”** status

- ✓ if data are in the **option 2**, liaise with INFO/RAC if the file is in “**Not compliant**” status.

In any case, CPs need to send an official e-mail to INFO/RAC (imap@info-rac.org) explaining which test files have to be accepted and maintained and which ones have to be deleted. The **saved files will be renamed and integrated** in the system as new IMAP call data.

1.2.2 MED POL data migration

MEDPOL Info System database migration into the IMAP Info System has been successfully carried out by INFO/RAC, in consultation with MEDPOL during 2020/2021, as initially proposed and confirmed by the Meeting of the MED POL Focal Points, Rome, Italy, 29-31 May 2017.

Monitoring data for nutrients and contaminants (sediment and biota) reported using the MED POL Metadata Templates have been migrated to the new IMAP Info System using Data Standards adopted for IMAP Common Indicators 13 (Concentration of key nutrients in water column), 14 (Chlorophyll-a concentration in water column) and 17 (Concentration of key harmful contaminants measured in the relevant matrix (biota, sediment, seawater)).

In total **69 files** have been revised and migrated, including a data review phase, in terms of formatting, of alignment with Data Dictionaries, and further checks necessary to make the files compliant in the System.

The monitoring data have been received from Mediterranean countries over the last 15 years from 2005 to 2015-2017 and include some MEDPOL Info System datasets dating back to the early 1990s, in compliance with the LBS Protocol. The entire dataset is now available on the IMAP Info System in a standardized format and stored on an infrastructure able to guarantee its integrity and preservation over time.

It is important to remark that the **periodic collection of MED POL monitoring data will become part of the IMAP Call** through the reporting for IMAP Common Indicators for EO5 and EO9 **that will substitute the data reporting into the MED POL Info System (no more active)** or other ways of data submission.

1.2.3 Projects datasets

The lack of monitoring data leads to explore **other possible sources** to fill the gaps. It is up to the CPs to **assess which other sources are available and endorse them** as official IMAP data sets.

Criteria for validation of other available datasets should be defined by Countries in a common and agreed way in order to avoid incoherent datasets in IMAP.

In this context, **projects** occupy a relevant position and although their use is allowed, the following rules should be applied:

- the **project source** should be always reported in remarks;
- monitoring data related to projects should be collected in **distinct files** and not mixed with other monitoring data produced by IMAP national monitoring programmes.

1.2.4 IMAP Call

As requested by the IMAP call opened in June 2020, all IMAP users are expected to make the maximum effort to report data into the IMAP Info System, also for the production of the Mediterranean Quality Status Report (**2023 MED QSR**). The Report on the state of the quality of the Mediterranean (hereinafter QSR), which aims to evaluate the main results concerning the "state" of the marine environment, **will mainly built on IMAP indicators and the relative monitoring data**.

Till now, regardless the status (Draft, Compliant, Not Compliant, Valid, Not Valid, Published), CPs have reported by uploading a total of **84 files** into the IMAP Info System.

To facilitate a high response to the IMAP Call, INFO/RAC, in close cooperation with CU and the other MAP Components, is ensuring a constant and cross-cutting support for the reporting of all the IMAP Common Indicators at two different levels:

- supporting each IMAP user for Common Indicators reporting through an **IMAP helpdesk**
- supporting each Contracting Party through **Bilateral Assistance/Trainings meetings**

The INFO/RAC **IMAP help desk**, has provided and has ensured a continuous technical support to Contracting Parties (CPs) to facilitate understanding, access, and use of the IMAP Info System. Full technical assistance has been provided in the process of filling-in DSs and data submission.

In addition in the biennium 2020-2021, **Bilateral Assistance/Training meetings** have been organized by INFO/RAC according to the availability of Contracting Parties to provide via videoconference an organic and structured presentation for monitoring data reporting including:

- a clear picture of the IMAP Info System and its functionalities;
- specific explanations and support for the correct understanding of Data Standards and how to fill in them;
- an overall guide about the consultation of Data Dictionaries;
- information about the available supporting tools (utility check and user guide);
- support to provide a clear state of art of the monitoring data availability in countries;
- support to ensure compliance of the filled Data Standards;
- information in order to complete the list of IMAP users still pending in some countries.

In order to maximize the benefit of a Training/Assistance meetings, each country should:

- ensure the participation of all the national IMAP Users;
- have already tried to access and work on the system;
- has already made an internal check about all available data for IMAP reporting.

Furthermore, INFO/RAC and the respective MAP Components help desk accounts established during the testing phase, remain active to provide full support to the Contracting Parties:

- imap@info-rac.org for any problem relating to access, data standards download and upload, any difficulty that users can encounter during the process, including clarifications and advice of the type of content requested by the system;
- pollmlitter_imap@info-rac.org to provide clarifications and advice related to scientific aspects of the information requested by the system for Pollution and Marine Litter;
- bio_imap@info-rac.org to provide clarifications and advice related to scientific aspects of the information requested by the system for Biodiversity and Non-Indigenous Species;
- coasthydro_imap@info-rac.org to provide clarifications and advice related to scientific aspects of the information requested by the system for Coast and Hydrography.

1.3 IMAP Users network

CP User profiles have been further updated and refined according to Contracting Parties advise.

The role of Contracting Parties users has been detailed as per the table below:

Official IMAP Users are responsible to upload, validate and officially release monitoring data related to
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IMAP Common Indicators, in line with the following three data management levels:

Level I - Upload: users uploading the monitoring data file and performing the **compliance quality check** - the system will generate an error file if the monitoring data file is NOT compliant with Data Standards and Data Dictionaries.

Level II - Validation: users performing the process of quality control of monitoring data –the system doesn't generate any automatic output. **Validation** confirms that all controls related to the content have been successfully passed.

Level III - Official release: users officially releasing monitoring data at country level as a final step. Users have the duty to confirm the **official release**.

The 3-level users subdivision allows the CPs to differentiate the responsibility level according to the internal national organization on data management.

An example of a possible structure could be:

Level I: *scientific institutions responsible for data production and elaboration (i.e. monitoring and research institutes)*

Level II: *national institutions responsible for data collection and validation (i.e. Environmental National Agency)*

Level III: *national entities responsible for the official release of the data (i.e. National Focal Point)*

Nevertheless, Contracting Parties can decide to appoint the **same user even for all the 3 levels**.

In order to maximize the reporting data on the IMAP Info System, an integration between the IMAP Users Network and INFO/RAC Focal Points will be promoted and facilitated.

INFO/RAC Focal Points:

- act as facilitators among IMAP users and INFO/RAC,
- ensure full collaboration of all national institutions for IMAP reporting;
- allow the sharing and exchange of knowledge and information for data reporting purposes on IMAP Info System;
- provide the state of art of IMAP reporting at Country level;
- provide suggestions and observations to improve Information Standards.
- coordinate the participation of all the national IMAP Users in the IMAP Assistance/Training meeting.

1.3 Next steps

In the general framework of the agreed roadmap on MAP data policy and taking into account countries needs, capacities and challenges caused by the recent COVID-19 pandemic, it is essential that the Secretariat is informed by each Country about the following aspects:

- ✓ the state of art of the **availability** of monitoring data for IMAP;
- ✓ any **delay** affecting the planned timeline in IMAP user appointment or data uploading;
- ✓ the **sources** of data used in monitoring data reporting;
- ✓ any **restriction** in use of reported data;

- ✓ completion of IMAP **data collection** for the **11 selected IMAP Common Indicators** and clear understanding of quality controls outputs as follows from compliance check run on IMAP Info System;
- ✓ preparation for the reporting of the new data flows that will be implemented with the completion of IMAP Info System for the **remaining IMAP Common Indicators**;
- ✓ publishing **a set of validated data accessible at the regional level** (each CP provides assessment products of data referred to its own country);
- ✓ agreement with the other CPs under the INFO/RAC and CU coordination on **a common level of aggregation of data**, to assure wide visualization in the Mediterranean Region.