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Integrated Meetings of the Ecosystem Approach Correspondence Groups on IMAP Implementation (CORMONs)

Videoconference, 1-3 December 2020

Agenda Item 7: Promoting SPI for IMAP Implementation

Promoting SPI for IMAP Implementation

UNEP/MAP
Athens, 2020

Note by the Secretariat

Science Policy Interface (SPI) is a crucial element for the effective implementation of the Integrated Monitoring and Assessment Programme (IMAP). Contracting Parties' interest in SPI application has been expressed though several COP Decisions, including Decision IG.22/2 on Mediterranean Strategy for Sustainable Development (MSSD) 2016-2015 and Decision IG.22/1 on MAP Mid-Term Strategy (MTS) 2016-2021, while SPI activities are included in the biennial MAP Programmes of Work.

The present document provides a number of proposals in view of promoting SPI for IMAP implementation, capitalizing on information from two sources: (a) the SPI recommendations to support IMAP implementation prepared under the EcAp MED II Project; and (b) the Implementation Plan on the UN Decade of Ocean Science for Sustainable Development 2021-2030 (UN Decade on Ocean Science).

The 7th Ecosystem Coordination Group Meeting provided a number of comments noting the importance of avoiding duplication and the necessity to use existing structures, as well as to take into account existing regional and transnational practices that could serve as a model. The Meeting asked the Contracting Parties to further review this document and provide feedback regarding the recommendations provided in order to feed the discussion for further IMAP implementation and preparation of the 2023 MED QSR and the next cycle of the UNEP/MAP Mid-Term Strategy.

The first part of the present document builds on information from the above-mentioned SPI recommendations for further discussion by the integrated CORMON Meeting.

This information is enriched with insights and orientations deriving from the Regional Workshop "The Mediterranean Sea We Need for the Future We Want" that was held from 21 to 23 January 2020, in Venice, Italy, in the framework of the preparations for the UN Decade on Ocean Science.

The Meeting is expected to recommend the next steps in relation to above specified topics, providing also an opportunity to showcase linkages of present work with implementation of activities in the framework of EcAp MED III and IMAP-MPA Projects. At the same time, this Meeting`s outcome will contribute to ongoing preparation of the new UNEP/MAP MTS for the period 2022-2027.

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List of Acronyms/Abbreviations

COP	Conference of the Parties
CORMON	Correspondence Group on Monitoring
EcAp	Ecosystem Approach
EC	European Commission
ESA	European Space Agency
EU	European Union
FAIR	Feasible; Acceptable; Interoperable; Reusable
GES	Good Environmental Status
GFCM	General Fisheries Commission for the Mediterranean
IMAP	Integrated Monitoring and Assessment Programme of the Mediterranean Sea and Coast and Related Assessment Criteria
MAP	Mediterranean Action Plan
MED POL	Programme for the Assessment and Control of Marine Pollution in the Mediterranean Sea
MED QSR	Mediterranean Quality Status Report
MSFD	Marine Strategy Framework Directive
SDGs	Sustainable Development Goals
SPA/RAC	The Regional Activity Centre for Specially Protected Areas
SPI	Science Policy Framework
PAP/RAC	The Priority Actions Programme Regional Activity Centre
PB/RAC	The Plan Bleu Regional Activity Centre
PoW	Programme of Work
UfM	Union For the Mediterranean
UN DECADE	UN Decade of Ocean Science for Sustainable Development 2021-2030
UNESCO-IOC	United Nations Educational, Scientific and Cultural Organization
UNESCO-IOC	International Oceanographic Commission of UNESCO

1. Background

1. SPI in Environment faces many challenges due to uncertainty and complexity of the environment itself, differences in worldviews and consideration of time and power games (conflicting interests) between scientists and decision makers. Nevertheless, all environmental policies have been science based because they need solid scientific evidence to be robust and generate more acceptance and legitimacy for political interventions.

2. From 2015-2018, the Secretariat (Plan Bleu) has prepared a series of working documents highlighting science gaps and policy needs for IMAP regional and local implementations and organized 5 SPI workshops (twice back to back with CORMON meetings on Pollution and Marine Biodiversity) gathering leaders of scientific projects and experts who are in charge of the implementation of environmental policies at national and regional levels.

3. Based on these workshops and desk work, many recommendations on how to make SPI more efficient have been summarized in two major publications in 2019:

- 3 Brochures[1] (SPI to support monitoring implementation plans as well as sub-regional and regional policy developments regarding EcAp clusters on pollution, contaminants & eutrophication, marine biodiversity & fisheries, coast & hydrography) (UNEP/MED WG.467/Inf12);
- Policy-oriented report: Strengthen, structure and sustain a SPI for IMAP implementation in the Mediterranean. (UNEP/MED WG.467/17).

2. Recommendations for a SPI to support IMAP implementation

4. The recommendations presented in this section are derived from literature analysis, including the results of the EcAp MED II project, and from a series of interviews conducted with representatives of RACs, policy makers and scientists and an on-line survey.

5. The main goal of an SPI for IMAP is enhancing the relationship between science and policy, in order to improve the delivery of IMAP in terms of monitoring and assessment of the status on the Mediterranean Sea and coastal areas, as a basis for further and/or strengthened measures and informed policies for achieving GES.

6. SPI for IMAP – **Specific goals:**

- Ensure that results of recent and ongoing scientific projects consisting in data collection and knowledge generation are considered in the country-specific and regional IMAP monitoring programmes;
- Provide that the policy process supports the articulation of policy challenges in relation to monitoring and assessment where scientific input is necessary;
- Reinforce links between IMAP and other monitoring programs and policy at regional and national level, to ensure that their outcomes are reflected in regional policy developments related to IMAP and possibly also in the country specific EcAp monitoring implementation plans, beyond the EU;
- Make the scientific community engaged in coastal and marine research more aware of environmental policy needs and challenges at regional and national level.

7. From a practical point of view, the following operational objectives are identified:

- Reflect relevant scientific recommendations and results in the documents prepared by UNEP/MAP; 42 Strengthen, structure and sustain a Science Policy Interface (SPI) for IMAP implementation in the Mediterranean;
- Follow-up with targeted communication material, ensuring further knowledge sharing and specific scientific input both to the development of national work (monitoring implementation plans), sub-regional and regional policy development;

[1] http://planbleu.org/sites/default/files/publications/cahier18_en_isp.pdf

- Finally, it is worth clearly specifying that the objectives of the SPI for IMAP are focused on and limited to the knowledge and provisions related to the 11 EO used to define the ecological status according to GES definitions/determinations of the related indicators and any piece of knowledge relevant to them.

8. SPI for IMAP – **Added values:** The existence of mutual benefits for the different parts involved in an SPI is crucial. Exploitation of mutual benefits can act as driver for SPI implementation. The interaction of the parties involved in the SPI would allow the creation of a virtuous "decision chain" contributing to strengthen the implementation of environmental policies.

9. IMAP-SPI added value for scientists:

- Ensure that scientists are aware of policy makers and managers' needs and constrains (i.e. in terms of feasibility of actions).
- Make science more action-oriented, in response to specific societal and political demands and overcome constraints (which are various: different visions, misunderstandings related to semantics and terminology, etc.) that limit the effectiveness of exchanges between scientists and decision makers.
- Help scientists answer calls for fending research proposal with arguments referring to specific policy-maker support.

10. IMAP-SPI added value for policy makers:

- Understand the complexity of the marine and coastal environment and its evolution to develop relevant and adaptive policies.
- Enable that environmental policies are based on sound scientific knowledge to be more robust and to generate more acceptance and legitimacy of public interventions.

11. IMAP SPI added value for managers/practitioners:

- Strengthen "Marine and coastal governance" in a context of multiple actors taking into account societies and markets.
- Coordinate, and provide guidance on concrete management needs, engage in collaboration with scientific communities at national and regional levels.

12. IMAP SPI added value for economic sectors and society at large:

- Benefit from healthy and productive marine and coastal ecosystems for both economic activities and the human society (e.g. coastal communities) at large;
- Effective policy and regulation systems;
- Know-how about environmentally sustainable practices for business;
- Awareness about environmentally sustainable practices and behaviors for citizens;
- Scientific support to mandatory monitoring requirements in the policy cycle.

13. SPI for IMAP – **Needs:** From 2015 to 2018, Plan Bleu initiated a series of workshops called "Implementation of the Ecosystem Approach in the Mediterranean: strengthening the science-policy interface". Discussion undertaken during the workshops highlighted a number of needs for strengthening SPI for IMAP. In 2019, 8 interviewees were asked to score the relevance of these needs, which are presented in the following points, in the (average) order of priority assigned by interviewees:

- Develop new research projects that would specifically include an SPI component and which would guide research towards measures or parameters that are important for policymaking.
- Reflect relevant scientific recommendations and results in the documents prepared by UNEP/MAP (for example in its planned Mediterranean Quality Status Report).
- Follow-up with targeted communication material, ensuring further knowledge sharing and specific scientific input both to the development of national work (monitoring implementation plans) and sub-regional and regional policy-development.
- Strengthen technical expertise in SPIs by including doctoral students and young professionals specialized in politics and policymaking.
- Carry out pilot SPI projects including both scientists and policymakers at different scales on different topics.

- Include social scientists in research projects to facilitate communication between scientists and policymakers.
- Involve public policymakers in projects from the outset.

14. The following, additional needs were suggested during the interviews:

- Ensure that stakeholder engagement in the SPI process is balanced and neutral, which implies early and durable engagement of all key actors (scientists and policymakers mainly, but not exclusively).
- Mutually adjust (or adapt) the languages of the two SPI components to improve communication: simplify and adapt the scientific language to improve communication of research results to policy makers.
- Proactively communicate policymakers' needs and priorities, as well as availability of resources, operational bottlenecks and policy timing, to scientists, to jointly understand what is feasible and what it is not
- Highlight socio-economic implications (pros and cons) of different environmental management choices based on scientific knowledge, in terms of economic development, job creation, education, gender equality, etc.
- Focus SPI activities on major challenges, but also consider emerging environmental and climate issues.

15. SPI for IMAP – **Gaps.** A number of gaps related with SPI for IMAP have been identified during the workshops mentioned above and they were scored by the interviewees contacted in the present study. The gaps are presented in decreasing order of importance here below, considering the (average) scores assigned by interviewees:

- Heterogeneous spatial distribution of knowledge availability. Generally, a gap between Northern and Southern Mediterranean countries can impact the robustness of regional Mediterranean models and knowledge.
- "Ecosystem functioning" approach. Currently available knowledge on the functioning of Mediterranean marine and coastal ecosystems is still lacking, although the mobilization around EcAp and the MSFD has so far succeeded in developing new knowledge.
- Scientific results to inform different processes. Scientific research results need to be suitable to cater different purposes integrated in IMAP: (i) monitoring, (ii) integrated environmental assessment and (iii) IMAP further revisions.
- Monitoring versus obtaining new knowledge. There is a relevant difference between routine activity with the purpose of monitoring and scientific activities for obtaining new original knowledge. Furthermore, if new knowledge is considered GES relevant, a sustainable monitoring process should be developed.
- Lack of knowledge. Scientists are not in all areas currently able to provide necessary knowledge to policymakers to support the goal of achieving GES.

16. The following, additional gaps were suggested during the interviews:

- Lack of appropriate representation of science and policy components within CORMONS: participants to CORMONS often do not properly represent the two components. They have some technical knowledge on IMAP process but at the same time they lack of a clear mandate for decisions.
- Lack of financial capacity and limited availability of technical skills and tools, which were pointed out as an important limitation to SPI in the southern Mediterranean countries.
- Concentration of knowledge in few subjects and lack of knowledge dissemination.
- Heterogeneous methodologies, tools and protocols of monitoring systems (in terms of harmonization and standardization of risk-based and analytical monitoring protocols).

3. General remarks on SPI

17. Design and creation of a SPI is not an end in itself, but rather serves to operationally support the implementation of planning and management processes - in our specific case focused on the marine and

coastal environment and specifically on its monitoring and assessment - which are based on strong, reliable and accurate scientific knowledge. A SPI provides the way and the tools to strengthen and simplify the interactions between science and policy/decision making by facilitating the transformation of scientific results into actionable knowledge, improving its uptake by policy and decision making processes, enhancing wider dissemination and capitalization of scientific knowledge, highlighting key policy priorities which require focused research and helping optimizing costs and mutual benefits. In this sense, a SPI is an alive experience, which requires long-term vision and sustainability, and continuous maintenance and operation.

18. The report produced in 2019 has focused on possible ways and approaches to: 1. structure; 2. strengthen; and 3. sustain a SPI for IMAP implementation and GES achievement in the Mediterranean, providing related recommendations for both the regional (Mediterranean Sea) and national levels. Capitalizing from the wide available literature and other SPI examples, recommendations have been clustered around five pillars: *Formalization, Simplicity, Accessibility, Enabling conditions, Mainstreaming* into projects.

4. The Regional Workshop for the UN Decade of Ocean Science for Sustainable Development 2021-2030, Venice, UNESCO-IOC, 21-23 January 2020

19. The Regional Workshop "The Mediterranean Sea We Need for the Future We Want" was held from 21 to 23 January 2020, in Venice, Italy, in the framework of the preparations for the United Nations Decade of Ocean Science for Sustainable Development 2021-2030 (Decade). This important event follows up on the outcomes of the First Global Planning Meeting that was held from 13 to 15 May 2019, in Copenhagen, Denmark. The Mediterranean Regional Workshop was co-organized by the Italian Oceanographic Commission, the IOC-UNESCO, the European Commission, the United Nations Environment Programme/Mediterranean Action Plan and the Mediterranean Science Commission. More than 150 participants representing a good balance among different stakeholders (government, scientific community, private sector, regional and international organizations) provided significant contribution to map the priority needs and responses of relevance for the Mediterranean region within preparation of the Implementation Plan of the UN Decade of Ocean Science for Sustainable Development 2021-20302.

20. The UN Decade of Ocean Science for Sustainable Development was proclaimed by the General Assembly to pursue two overarching goals: to generate the scientific knowledge and underpinning infrastructure and partnerships needed for sustainable development of the ocean, and to provide ocean science, data and information to inform policies for a well- functioning ocean in support of all Sustainable Development Goals of 2030 Agenda.

21. The Regional Workshop was structured along the six societal objectives of the UN Decade, which were addressed through six working groups:

- A clean ocean where sources of pollution are identified and removed;
- A healthy and resilient ocean where marine ecosystems are mapped and protected;
- A predictable ocean where society has the capacity to understand current and future ocean conditions;
- A safe ocean where people are protected from ocean hazards;
- A sustainably harvested ocean ensuring the provision of food supply;
- A transparent ocean with open access to data, information and technologies.

22. In addition, a specific focus was on cross-cutting issues, including capacity development and marine technology transfer challenges and opportunities, as well as the communication priorities. During this three-days gathering the UNEP/MAP system contributed to all 6 Working Groups of the Mediterranean Workshop with regards to preparation of the Implementation Plan of the UN Decade of Ocean Science for Sustainable Development 2021-2030.

5. UNEP/MAP Recommendations

23. To deliver truly impacts of the multi- and trans-disciplinary ocean science on the economies and ecosystems, the explicit and ambitious recommendations for actions were provided by UNEP/MAP during the Mediterranean Workshop, including the following:

- The Mediterranean environment should be under permanent review, whilst accessible knowledge regarding physical, biogeochemical and biodiversity dynamics on climate time scales needs to be continually upgraded with a comprehensive ocean observing system. A quantitative understanding of ocean ecosystems and their functioning should improve the management and adaptation measures.
- Ambitious transformation is needed as to: i) connect many existing initiatives, efforts, actors, resources and tools for marine science in the Mediterranean and beyond; ii) strengthen synergies, iii) support learning to work together, iv) join the resources for strongest impact, and avoid duplication and fragmentation.
- There is a need to acknowledge and promote the Integrated Monitoring and Assessment Programme (IMAP) of UNEP/MAP as a basis for Mediterranean countries for harmonized and common assessment of marine and coastal environment, including implementation and reporting on SDG 14 implementation.
- The most relevant innovative knowledge and technologies are of utmost importance for reliable and cost-effective monitoring and assessment of the state of marine environment. To that effect there is a need to: i) promote inter-disciplinary research aimed at elucidating impacts of cumulative stressors on the ocean; ii) improve the assessment criteria to support integrated GES assessment; iii) strengthen optimal monitoring practices nationally and sub-regionally applicable, along with the Quality Assurance and Quality Control of data; iv) supplement and complete real time monitoring with remote sensing and satellite techniques; v) supplement and complete the science base with holistic mapping of the ocean, in all its dimensions, relying on IMAP indicators and their interrelation with SDGs; vi) support sustainable use of ocean resources and ecosystem - based planning by applying ICZM and MSP tools; vii) improve methodologies to support coherence and measure connectivity of the MPAs at regional level, as well as to support introduction of the concept of other effective area-based conservation measures at national level; viii) to promote citizen science and the innovative experiences of their involvement for ML monitoring that should be encouraged and expanded to other items
- The application of advanced modeling and forecasting techniques and tools is indispensable for: i) integration of open oceans and coastal ocean observing and modelling systems; ii) improved, multidisciplinary and extended range predictive capabilities for the coastal zone, including advanced climate change and related large extremes impacts.
- Enhanced scientific collaboration and partnerships for solutions is important to bring social science into the conversation and promote interdisciplinary research to better understand interactions between environmental dynamics and human/social systems, and their implications for sustainable development. To support mutually beneficial science policy practice interfaces, it is necessary to integrate socio-economic research and data with existing physical and biological research, as well as with the observation to assess pressures and not just state;
- Our efforts must continue addressing the emerging and priority issues such as new mandatory priority and emerging contaminants; ocean acidification; sea level rise; use of nature-based solutions;
- There is a need for closer and better interaction between the research communities and the governmental bodies responsible for monitoring, providing real enhancement of science - policy interface at national level.
- Long-term collaborations and funding need to be based on durable institutions and mandate, rather than segmented projects approaches, in particular when supporting the Southern Mediterranean Countries, to build trust and consistency;
- Voluntary networks of scientist and experts, such as MedECC, could be potentially replicated on other thematic fields such as integrated assessment of marine environment that

interrelates the drivers and impacts of cumulative stressors with integrated assessment of the state of marine environment and marine protected areas management.