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Meeting of the Science Policy Interface Experts in relation to Marine Litter, Biodiversity and Fisheries, Coast and Hydrography Monitoring, with a focus on the Risk Based Approach (RBA)

Madrid, Spain, 2 March 2017

Agenda item 4: Background working document on the RBA for monitoring

Title: Summary document on Risk-based approach for marine monitoring

Introduction

1. The key aim of the current Science-Policy Interface Meeting (SPI Workshop) is to strengthen Science-Policy Interface (SPI) between scientists and policy makers to discuss and give specific recommendations in relation to the implementation of the risk-based approach for monitoring in the framework of the Integrated Monitoring and Assessment Programme of the Mediterranean Sea and Coast and Related Assessment Criteria (Decision IG.22/7, so-called IMAP Decision).

SPI as part of the Ecosystem Approach of the UNEP/MAP Barcelona Convention

2. Recognizing the importance of interaction between scientists and policy makers in the work of UNEP/MAP-Barcelona Convention, in line with 1.4 of the UNEP/MAP Mid-Term Strategy1 and of its Programme of Work and Budget 2016-20172, SPI related work has been also integrated into the Ecosystem Approach process, with a specific focus on supporting IMAP implementation.

3. A preliminary analysis of the IMAP science needs has been prepared by Plan Bleu, which was presented and discussed at the SPI Inception Workshop held in December 2015 in Sophia Antipolis, France. During this workshop, the participants have identified a number of knowledge gaps that need to be filled for the full implementation of IMAP. The SPI Inception Workshop was followed by two specific workshops related to Pollution (Eutrophication & Contaminants) in Marseille the 20th and 21st of October 2016 and to Marine Biodiversity and MAP in Tangiers the 28th of November 2016, which were held back-to-back with the CORMON Pollution and second Mediterranean MPA Forum. In addition, SPI was also presented in the 1st national monitoring training workshop on Coast and Hydrography in Rabat on 26-27 October 2016.

4. The importance of the Risk Based Approach (RBA) for monitoring and the specific need for the development of guidelines to apply such an approach was highlighted during the Inception Workshop as a transversal issue and as an overarching principle for IMAP implementation at national, sub regional and national levels

5. The present document has been prepared to trigger discussions and provide more concrete guidance to the Secretariat and the Contracting parties on ways and means to further develop and apply the RBA while designing their monitoring programmes in line with IMAP. This working document is also supported by a background document (UNEP(DEPI)/MED WG.432/5), which lays down and describes the main features of RBA and related best practices of its application.

The Application of RBA in the framework of IMAP

6. RBA being recognized as an over-arching principle for IMAP, may provide between monitoring and assessment needs a useful link and be a practical method to ensure cost efficiency and feasibility of monitoring.

7. The logical framework of the RBA calls for an initial assessment, based on which Contracting Parties should prioritize their monitoring efforts in areas under higher pressures of human activity, that are at risk not to achieve or maintain GES and in the biota that are known to be more sensitive. Additionally, monitoring in areas with high ecological value should be prioritized. The IMAP Guidance

[1] Decision IG 22/1
[2] Decision IG 22/20

further recommends potential comparative monitoring, especially in relation to biodiversity, in between protected areas (e.g. MPAs, SPAMIs) and between areas under high pressures.

8. In applying the risk based approach in an integrated manner, thus mapping, assessing and ranking pressures is key.

9. In light with the above, building on IMAP, on the IMAP Guidance, on recommendations of pervious SPI workshops and on available tools, in order to make best use of the RBA, during the development of the national Integrated Monitoring and Assessment Programmes it is key to identify main areas of human pressures (and assess their spatial distribution and intensity, as well as their impacts).

10. Furthermore, in order to ensure integrity, and cost-efficiency of these national monitoring programmes, it is also key that based on this initial analysis, monitoring stations are established in priority areas only, which can include areas of high pressures including hotspots, as well as sensitive areas.

11. In addition, for the full application of RBA, the possibility of joint or integrated monitoring between different common indicators (and potentially different clusters, such as biodiversity and marine litter for example) would need to be analyzed, to ensure the maximum efficiency of the monitoring.

12. In order to undertake the above key steps at national levels, some science-policy questions would need to be addressed, both in relation to the overall development of national Integrated Monitoring and Assessment Programmes and in relation to specifics of marine litter, biodiversity and fisheries and coastal and hydrography monitoring:

1) Which improvements in scientific monitoring, evaluations and management are needed the most for RBA practical implementation in relation to IMAP implementation?
2) In line with IMAP, under practical implementation of RBA, “areas that are under higher pressures and the biota that are known to be more sensitive should be identified”- what scientific tools are available for this to be done in an integrated manner? (building also on Table 1 “Pressures and Impacts on marine environment” of the UNEP(DEPI)/MED WG.432/5).
3) As for the sensitive biota, should the focus be on vulnerable types of habitats, marine protected areas, spawning, breeding and feeding areas, migration routes, what priorities if any could be made in between them? As a practical and cost-effective approach, could as a first step, focus be dedicated to marine protected areas (including SPAMIs and possibly FRAs)?
4) In relation to NIS monitoring, is there a need for a different approach than in relation to biodiversity common indicators?
5) In relation to marine litter monitoring, which are the main elements to optimize monitoring strategies in line with RBA?
6) In relation to marine litter monitoring, in terms of distribution and quantities (especially for microplastics) what are the key steps to locate hot spots? Possibly including identification (size, type, possible impact), evaluation of accumulation areas (closed bays, gyres, canyons, and specific deep sea zones), and detection of litter sources (rivers, diffuse inputs), are the necessary steps that would enable the development of GIS and mapping systems to locate hotspots;
7) In relation to hydrographical conditions, noting that different types of structures will have different levels of impacts, but the indicator points out the longevity of structures (>10 years) and not size, how could some further “prioritization” of above-mentioned structures could be carried out with respect to their potential impacts, i.e. to levels of pressure? Furthermore, how could we reflect more on the specifics of common indicator 15, on the importance of map of the areas of

hydrographical changes with spatial maps of habitats, so more in relation to the extent, while noting that habitat condition will be assessed integrally together with other EOs (namely EO1 Biodiversity).

8) In relation to coastal monitoring, noting that the key objective is not to classify artificialization by its intensity/level of impact, how can we still highlight more dense (less patchy) urbanized areas, as well as areas urbanized in vicinity of sensitive habitats?

9) In relation to candidate indicator 25 (land use change), how could we ensure that in line with RBA, the areas where most valuable habitats were lost due to the land use change (changes from natural areas to urbanized areas, for example) could be focused on (as well as areas where the change was occurring at levels significantly higher than in other areas)?

10) Are there any opportunities for joint/integrated monitoring of Marine Litter with other Pollution and Biodiversity Indicators?

11) Is there any opportunity to create joint/integrated monitoring between seafloor litter and fish stock assessment surveys?

12) Are there any opportunities for joint/integrated monitoring of selected Biodiversity and Coastal Indicator