



UNITED
NATIONS

EP

UNEP(DEPI)/MED WG. 438/8



UNEP



UNITED NATIONS
ENVIRONMENT PROGRAMME
MEDITERRANEAN ACTION PLAN

02 June 2017
Original: English

Joint Workshop on Science Policy Interface (SPI) strengthening and Ecosystem Approach Coordination Group Meeting on IMAP scales of monitoring and assessment, including the next QSR

Nice, France, 27-28 April 2017

Report of the Meeting on “Joint Workshop on Science Policy Interface (SPI) strengthening and Ecosystem Approach Coordination Group Meeting on IMAP scales of monitoring and assessment, including the next QSR, Nice, France, 27-28 April 2017”.

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Introduction

1. The workshop was composed of two sessions. The SPI session on the 27th of April 2017 and a specific session to discuss the Quality Status Report (QSR) Draft Assessment factsheets on Marine Litter and Pollution, Biodiversity and fisheries, and Hydrography and coast on the 28th April. The workshop was co-organized by UNEP/MAP, MEDPOL, SPA RAC and PAP RAC. Joining these events enabled to gather scientific researchers invited by Plan Bleu for the SPI session, scientific experts designated by governments of Contracting Parties to the Barcelona Convention and EcAp coordination group members (National Focal Points of UNEP MAP).

2. Plan Bleu is mandated by UNEP/MAP to coordinate one of the key activities of the EcAp MED II project (2015-2018), focusing on the science-policy interface (SPI) strengthening. Indeed, in the framework of the implementation of the ecosystem approach (EcAp), the Integrated Monitoring and Assessment Programme (IMAP) has been adopted to monitor 27 indicators set up to assess the status of the Mediterranean Sea and Coast towards to achieving their Good Environmental Status (GES). In order to enable the implementation of the IMAP, it is crucial to bridge existing gaps between the scientific and policy making spheres. To this purpose, until 2018, a series of SPI workshops are planned, aiming to identify scientific needs in programmes that contribute to implement IMAP, to achieve the GES and detail solutions to fill them. A good coordination with the corresponding thematic UNEP/MAP Regional Activity Centers (RACs) and MEDPOL, having to support IMAP implementation at regional and national scales, is essential to involve environmental policy makers beside scientists; therefore, the principle of SPI workshops joined to thematic events organized by RACs has been agreed.

3. The first workshop, organized by Plan Bleu, took place in Sophia Antipolis (France) in December 2015. The objective was to bring together key stakeholders (scientists and policy makers) to discuss the implementation of science-policy interface (SPI) activities for IMAP. During this workshop, a first set of around 15 key cross-cutting and topic-specific knowledge gaps to be filled for the implementation of IMAP was identified, along with proposed actions to be taken to address these gaps. Since the Inception workshop held in December 2015, three SPI thematic workshops have been carried out: the second SPI strengthening workshop focused on IMAP pollution issues and was held as a specific session of a UNEP/MAP CORMON (Correspondence Group on Monitoring) on Pollution issues (19-21 October 2016, Marseille, France); the third meeting on SPI strengthening targeted biodiversity and MPAs and was held as a joint session of the 2016 Forum of Marine Protected Areas (MPAs) in the Mediterranean (Tangier, Morocco, 28th November 2016); the fourth meeting was an integrated SPI workshop gathering policy makers and scientists who attended the CORMON of the three clusters and focused on Risk-based approach to optimize monitoring; the fifth meeting was a joint workshop on Science Policy Interface (SPI) strengthening and Ecosystem Approach Coordination Group Meeting on IMAP scales of monitoring and assessment, including the next QSR (27-28 April 2017).

4. Further to the decision IG. 22/7 of COP19 of the Barcelona Convention in February 2016 adopting the IMAP, the objective of this last workshop on SPI strengthening was to highlight the definition of relevant spatial and temporal scales for monitoring to marine ecosystem and supporting the implementation of IMAP at national levels.

Participation

5. The meeting was attended by experts designated by the following Contracting Parties: Albania, Algeria, Egypt, Israel, Italy, Lebanon, Libya, Malta, Montenegro, Morocco, Slovenia, Tunisia and Turkey. The UNEP/MAP Secretariat was represented by the MED POL Programme, Plan Bleu, SPA/RAC, PAP/RAC and INFO/RAC. The meeting was also attended by Ifremer (representative of the French Ministry of Environment), the European Environmental Agency (EEA) as well as by several key scientific experts from 7 beneficiary countries of EcApMEDII project working in national institutions and regional projects. The full list of participants is attached as Annex I to the present report.

Agenda item 1. Opening of the Meeting and Organizational Matters

6. Ms. Gyorgyi Gurban, UN-Environment/MAP, project manager of the EcApMEDII project welcomed and thanked the participants to the fifth Science Policy Interface (SPI) workshop. The Secretariat highlighted the importance of linking decision makers and scientific experts towards increasing sustainability of human practices, and stressed that the development of SPI is becoming a priority for Contracting Parties to the Barcelona Convention. It was expressed that EcAp implementation needs a lot of inputs from both sides: policy makers and scientists. The implementation phase of IMAP is ongoing which means a revision of national monitoring programmes at national level and an assessment at regional level. The Secretariat stressed its confidence in the outputs of the meeting to feed into national implementation process of IMAP.

7. It clearly appears according to the Secretariat that coordinated and strong marine monitoring could strengthen the science policy interface. It was mentioned the current work related to Assessment and the QSR 2017. This work follows a regional approach and is based on IMAP Common Indicators. The Secretariat reminded that the first day is dedicated to the SPI and the second day will be dedicated to discuss specific factsheets on QSR. The outcomes of the meeting will be to feed into the regional and national IMAP.

8. Mr. Didier Sauzade, Plan Bleu Officer for marine ecosystems, welcomed the participants on behalf of Plan Bleu. He announced he will be soon retired and passes the lead of this action to his colleague Antoine Lafitte.

Plan Bleu reminded that the action of Science-policy interface is important to be strengthened. Here, the question of marine and coastal environmental policy within the framework of EcAp is concerned. Strengthened the science - policy interface means that enable scientists to better assist managers and decision makers in monitoring, assessments and measures to achieve good environmental status (GES).

9. Plan Bleu reminded that most of the audience is familiar with the fundamental importance of science for environmental policy making and that dialogue between scientists and managers is not easy, mainly because the time of the scientific research is not the same of the management. So, there are more and more initiatives around the world to facilitate this dialogue and strengthen this interface. This is particularly true for the implementation of IMAP, which represents a major challenge.

10. Plan Bleu said that this workshop is the first one organized on this subject. The need for these cross-sectoral workshops has emerged during the previous workshops and is in line with the revision of the national surveillance systems to correspond to the specificities of IMAP for the Mediterranean countries.

11. Plan Bleu stressed that there is therefore concerned with the temporal and spatial scales of monitoring. These scales have not been fully defined in IMAP reference documents that mostly specify indicators, target values, methods. They are left to the countries to do so. The definition of these scales has a direct consequence on the cost of monitoring. In general, finer the scales are, higher the cost is, but also higher the quality of the results is. This depends of course on the variability and predictability of the phenomena to be monitored, greater the variability and the unpredictability are, more the scales must be fine to provide reliable results. Countries have a responsibility to find an acceptable compromise between reasonable cost and acceptable quality of assessments that derive from monitoring to build measurement programs relevant to achieving good environmental status. It is therefore these important questions that the audience was invited to debate during the workshop.

Adoption of the Agenda

12. The proposed Provisional Agenda appearing in document UNEP(DEPI)/MED WG.438/2 was adopted and appears as Annex II to the present report.

Election of officers

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

| | |
|--------------------|-------------------------------------|
| President: | Mr. Klodiana Marika, Albania |
| Vice-President 1: | Mr. Abed El Rahman HASSOUN, Lebanon |
| Vice- President 2: | Ms. Samia GRIMIDA, Libya |
| Vice- President 3: | Mr. Mitjia Bricelj, Slovenia |
| Rapporteur: | Ms. Tamara MICALLEF, Malta |

14. The Chair emphasized the need to bridge the gap between science, policy making and politics, in order to have a vision of the existing constraints and make the good decisions to progress towards achieving GES in the Mediterranean Sea by 2020.

Agenda item 2. Further Implementation of the Integrated Monitoring and Assessment Programme of the Mediterranean Sea and Coast and Related Assessment Criteria: Focus on Scale of monitoring

UNEP(DEPI)/MED WG.438/3; UNEP(DEPI)/MED WG.438/Inf.7

15. Ms. Maria Caparis, expert and consultant for Plan Bleu delivered a presentation on the definition of temporal and spatial scales of monitoring. The presentation was also prepared by Ms. Marina Penna and Mr. Carlos Guitart. It was indicated that the 3 clusters (Pollution and Marine Litter; Biodiversity and Fisheries; Coast and Hydrography) were previously discussed in 3 separate CORMON meetings.

16. It was reminded the definition of temporal and spatial Scales for monitoring and assessment in the Mediterranean policy context. Monitoring scales and assessment scales are linked but distinct, the latter defining the scale at which for each specified element GES has been achieved or not, a process that needs to draw from and aggregate the monitoring data that will often be collected at finer spatial and temporal scales. She also said that national scales of monitoring and regional level assessment are linked, as data on monitoring serve to feed the assessment, but are addressed through different methodological approaches.

17. It was pointed out that within the EcApMEDII project, the Secretariat and the RACs support countries which are required to adapt to the new requirements of the IMAP to design their national monitoring. It was also stressed that strengthening the Science Policy Interface (SPI) is crucial to address the new IMAP requirements to design national monitoring.

18. It was recalled that the concept of “scales” reflects the necessity to clearly define the different scales of the integrated monitoring, and assessment actions, using a “nested approach”, as depicted in the IMAP initial draft guidance document. The state of the art of the definition of relevant spatial and temporal scales for the three IMAP clusters and related EOs (Biodiversity, Fisheries and NIS; Pollution and Marine Litter; Hydrography and Coasts) and a final synthesis of recommendations were presented.

19. Mr. Samir Grimes, from the Algerian National School of Marine Sciences and Coastal Management, gave a presentation on monitoring and environmental monitoring of marine and coastal areas in the southern Mediterranean with a specific focus on Algeria. The 3 main key elements in the presentation are i) existing monitoring protocol in Algeria; ii) geographic scales; iii) temporal scales.

20. It was indicated that there are challenges such as developments along the coastline and the

impacts to be monitored and assessed. It highlighted the fact that it is feasible to deliver ecological results following an ecosystem approach with few resources.

21. It was said that the resilience of a monitoring approach depends on its inherent complexity and varieties of challenges monitoring strategies, in general, are dealing with. There are many different approaches based on risk analysis. But the most important element is to understand the expectations related to monitoring, for whom it is addressed, and which stakeholders are involved.

22. The work for the Case of Algeria has been done in collaboration with the PAP/RAC and the PAM. It consisted in a follow-up of the priority areas in the Mediterranean Sea, and went beyond the scale of the identified zones. One example was given regarding the spatial representation which was used for harbour areas (impacted by anthropogenic activities) and untouched zones (with few or no anthropogenic activities). Another example was given regarding the fishing resources which take into account a different temporal scale. Moreover, an important point highlighted was that the financing and human resources do not necessarily need to be important to monitor fishing resources.

23. The Scientists must deliver a clear and comprehensive message for policy-makers. The main obstacle is often the cost of such monitoring and assessments. Nevertheless, the key to success is to encourage interdisciplinarity. Monitoring should also be attended at a more local scale in order to increase the impact. Thus, satellite imageries may provide inputs for monitoring at low cost for instance, satellite imageries make it possible to follow the behaviour of invasive phytoplankton.

24. Another tool is to use mapmaking of key habitats through diving. Furthermore, network helps to share means and fill in gaps. It is crucial to remind that monitoring has allowed legislative progress, and has enhanced education and general awareness.

25. It was recalled that gaps exist but most of the EOs are covered in Algeria. Monitoring areas for pollution have been defined with MEDPOL and monitoring areas for key habitats have been defined with SPA/RAC.

26. It was highlighted at the end of the Algerian Case presentation that it's crucial to improve the coordination of national monitoring and to put in synergy regional and national networks around the Mediterranean and encourage them to collaborate. It was stressed that it's also important that citizen science be also involved when monitoring coastal zones: the examples of involving diving clubs for NIS monitoring and leisure boats which can also give information to scientists were given.

DISCUSSION

27. The chair opened the floor for discussion with the audience regarding the previous presentations delivered.

28. After presentations, a certain number of comments were provided by participants. The audience appreciated the really focused and comprehensive presentations. Participants highlighted the balance between policymakers and scientists' representatives in the audience. The presentations focused firstly on scientific level, which was appreciated.

29. Participants indicated that SPI is a comprehensive approach and that all stakeholders must be addressed at all levels involving policy level and science.

30. Moreover, the participants stressed that it is important to take really into account the fact that the second presentation bring the audience to the ground in explaining that the bottom-up approach is corresponding to policy makers and scientists' needs. According to the audience, Algeria has a good approach to address the huge number of EO indicators because Algeria is considering two dimensions in their interventions: general and local levels.

31. With regards to this, participants suggested to use results from the existing data banks and adopting a bottom-up approach to shift towards implementation, and that EcApMEDII project should serve the local needs for the users and not for bureaucrats (cost-effective).
32. In addition, the audience said that as far as the funding strategy goes, it could be a relevant idea to train fishermen on ways to fight against litter pollution.
33. With regards to ongoing funding strategies, an issue raised about the best way to mobilise them on the implementation of monitoring programme. It was also indicated that the EU research and innovation programme Horizon 2020 is open to non-European countries as well. Moreover, it was said that the EcApMEDII project supports a funding strategy for the implementation of existing national monitoring programmes and will encourage monitoring in new areas. It is not a classic strategy but as far as possible it will use citizen science and leisure shipping.
34. The audience stressed that, in order to be cost-efficient, it's necessary for managers to use available data in a cooperative manner. They also said that a monitoring strategy should be accompanied by an analysis of monitoring costs.
35. Then, participants added that sharing existing data is crucial. States should promote the open access of data.
36. Finally, it has been suggested, for the next step of IMAP implementation, to demonstrate synergies (e.g.: JRC offered partnerships) and it has been encouraged the recognition of eco regions (to deal with spatial scale aspect) which are important for national reporting and monitoring.
37. The audience stressed the importance of the objectives given by the working document UNEP(DEPI)/MED WG438/3. The chair remembered that the UNEP(DEPI)/MED WG.438/3 will be discussed during this meeting while the factsheets will be also presented during the PAP and SPA RACs Focal Point Meetings in May 2017. Once all comments will be collected, the fact sheets will be revised for the EcAp coordination group meeting in September 2017.
38. Some discussions focused on issues related to the cost benefit analysis. Participants remembered the procedures and the interest of benchmarking of monitoring parameters. The Authorities and scientists should consult together to define a maximum for their budget regarding the implementation of their monitoring programmes. It is indeed important to define the monitoring goals to keep the costs under control.
39. Participants also indicated that available data form scientific projects should be made available to the policy makers, highlighting the fact that SPI is very important. It has been expressed in addition that the cost-benefit balance would be achieved through the merge of monitoring researches combined with the strengthening of Science-Policy Interfaces.
40. It was made clear that costs will vary between different countries. It was also pointed out that scientists have to become connected to decision-makers that trigger the monitoring. It was emphasized that there must be open access to data and data is exchanged with the institutions, NGOs, etc. It was also indicated that the various elements of monitoring can be combined such as marine litter with bathing water quality.
41. Participants also noted that the cost benefit analysis has improved as it is now possible for everyone to consult data of national and regional projects. It has been said that acquiring data at sea is expensive. To go beyond that, one way is to share the acquired data. So, public authorities, NGOs, industry and scientists must share and disseminate data. Countries should encourage this action. For example, the EU requires to make the data available (with the exception of industrial property) to award H2020 grants.

42. In addition to that, participants agreed that there must be synergies between different marine researches for European and non-European countries.

43. A participant exposed the example of the DCSMM and reminded that corrective actions for monitoring are used to reach the targets. Also, it is important to define the field of surveillance so as not to do more than necessary. Moreover, it was pointed out that States should establish priorities in defining precise objectives of the monitoring, not for fundamental research but to achieve GES. It could be done thanks to a strong collaboration/ cooperation between managers and scientists.

44. Another example was done by a participant who mentioned that the macro regional strategy on northern Adriatic (a 3-year-old exercise) was an excellent example of contribution to enhance regional cooperation, to be more efficient with existing cash flow and following a bottom-up approach (national with sub regional/ ecoregional) in order to address common gaps and issues.

45. An example was done by a participant regarding the interest to follow an elementary monitoring, by surveying the same parameters monthly, together with new parameters such as the carbonate system variables, in the context of global phenomena, like climate change and ocean acidification. The audience highlighted that:

- they are important parameters which are not yet included in strategic regional IMAP. A reference was made to IMAP reference document but this issue could be included in the next IMAP cycle (UN-Environment / MAP is looking for volunteers to contribute for this next cycle);
- many topics/elements are related to the common needs of the Mediterranean region and so need to be addressed in common;
- there is a need for data concerning mammal species in Southern countries of the Mediterranean.
- not only nutrients but also biogeochemical parameters (i.e. carbonate system) are affecting other physical and chemical parameters.

46. So, the audience suggested to develop a platform for the Mediterranean or an online application to be introduced allowing dissemination and exchanges of best practices regarding the above-mentioned topics, directly to other countries. In addition to that, the participants highlighted the importance of establishing warning systems between countries (e.g. on *Pinna Nobilis* massive mortality).

47. At the end of the session of discussions, the audience highlighted that there is a huge lack of data on NIS in the south of the Mediterranean and also emphasized the importance of establishing a network to bring the south of the Mediterranean together to monitor species. This is very important if correlation between pollution events and species death in various areas of the Mediterranean can be monitored.

Agenda item 3. Best Practices on Assessment and Reporting Scales (Practices Of Regional Seas and of Contracting Parties)

48. Biodiversity and Alien Species in the Libyan Coast.

Mr Esmail Shakman delivered a presentation on the needs and challenges for their monitoring giving an overview of their monitoring programme of seabirds, turtles and NIS.

Libya has 2000km of coast and three main regions according to the FAO. Its sandy coast is a good habitat for alien species. It also has 2MPAs and a National Park (included in total coastline). Its 20 wetlands of regional importance attract many water bird species. Out of the 131 landlines, 8% are seasonal sites (specific species) and 92% are permanent. The country's main endangered species are mammals such as monk seals. After 2013, 58 cartilaginous species have been recorded, but research has not yet been conducted. There are 70 alien species recorded (fauna and flora). The studies on the impacts of alien species must also take into account the change in biodiversity. There is a problem of competition between alien and indigenous species in Libya. Some alien species are infected by parasites originating from the Red Sea.

49. National Strategy for Monitoring the Marine Environment - Moroccan Experience of the INRH. Mr. Samir Benbrahim presented the characteristic of the Mediterranean coastline, its diversity and wealth which makes the natural heritage rich but also attracts many species (of which parasites). It is important to align socio-economic activities with the marina sector. A regulatory framework is therefore necessary. The combination of marine monitoring strategy and research preserves and protects consumers, but marine knowledge still needs further improvement. Through legislative arsenal, programs are better-adapted and deliver an enhanced strategy. Monitoring allows to give the alert in case of accidents (invasion of species for instance). As the INRH addresses simultaneously marine environment monitoring and health protection, it permits the Institute to better convince policy-makers.

50. The monitoring framework is not a research framework but one cannot go without the other. The needs are necessary for coastal monitoring and for interventions, yet are highly dependent on external stakeholders for continuity. The implementation and development of the six laboratories has allowed the monitoring of 35000km of Moroccan coast.

51. It was recalled the fact that there are socio-economic interests related to the monitoring. For example, politicians need to back up scientists to monitor the marine environment and regional agreements must be signed and ratified.

DISCUSSION

52. After presentations, participants acknowledged that it's necessary, regarding the monitoring of new parameters, to encourage collaboration with other research institutes (e.g.: with Accobams to monitor marine mammals) to buy new instruments and equipment and to exchange on new methods to monitor.

53. Overall, participants stressed that compliance monitoring is demanding through the Barcelona convention. It's needed to have more specific sites and better resolution of results that do not exist currently in national monitoring.

54. Regarding the climate change issue, participants were informed that it exists different expert groups working on climate change adaptation (like CC expert group of UfM; the informal Scientific network of MedECC gathering around 260 experts from the Mediterranean,) and that GEF supports direct actions regarding climate change adaptation. Moreover, in IMAP guidance (inf. doc of the CoP 18) the effects on climate change are considered.

55. Some participants asked for the building of transnational observatory for Biodiversity monitoring and expressed the need to support southern Mediterranean countries in the update / revision of their national monitoring programmes.

56. Continuation of the presentations. Mr. Antoine Lafitte, programme officer at Plan Bleu, made a brief presentation on the organisation of the afternoon work, in three sub-groups in order to address general and specifics issues for each cluster (Marine litter & contaminants; Biodiversity & Fisheries; Coast & Hydrography) regarding the definition of relevant spatial and temporal scales for monitoring. He presented the main objectives of the session which are (i) to engage specific discussions with the audience on the main issues related to the definition of relevant spatial and temporal scales for the implementation of national IMAP related to marine litter, biodiversity and fisheries and coast and hydrography and (ii) to contribute to the formulation of the recommendations of the workshop and for futures actions in this field.

57. The moderator and rapporteur for each sub-group were presented by Plan Bleu and each participant expressed their wishes to attend the most relevant sub-group for them.

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| Sub-group 1: pollution and marine litter monitoring | Sub-group 2: biodiversity and fisheries monitoring | Sub-group 3: coast and hydrography monitoring |
| Moderator: Virginie Hart | Moderator: Mehdi Aissi | Moderator: Marko Prem |
| Rapporteur: Carlos Guitart | Rapporteur: Marina Pena | Rapporteur: Maria Caparis |

58. Plan Bleu presented the general issues which were discussed in the afternoon:
- Are the available IMAP elements (GES components, as defined by the EcAp EO and indicators, QSR fact sheets) sufficient to define scales of monitoring at national level?
 - How science can best help to define these scales?
 - In a next step, how science can support the adoption and then the implementation of national monitoring programmes in a coordinated manner at Mediterranean level?
 - How should be linked national monitoring scales and marine reporting units at regional level? (Articulation between national and regional levels).
 - How monitoring should contribute to develop the programmes of measure to achieve the GES?
 - How to define in practice relevant scales of national monitoring to assess GES with confidence on the results (quality assurance point of view)?
 - What are the main difficulties the Southern Mediterranean countries are facing regarding the definition of the national monitoring scales?
 - How to support the implementation of the national IMAP compatible integrated monitoring programmes, with a focus on specific needs of Southern Mediterranean countries?
 - Is there a need of specific capacity building modules on how to efficiently carry out the national monitoring?
59. Plan Bleu presented the specific issues which were discussed in the afternoon:
60. Regarding the Sub-group 1:
- The development of geospatial statistics, the use of GIS tools, RBA and uncertainty analysis would assist the setting of temporal and spatial scales.
 - There is the need to outline appropriate and reasonable monitoring scales to capture the natural and the pressure-induced variability.
 - At the initial stage of IMAP the differentiation between initial/screening monitoring and long-term monitoring is particularly important.
61. Regarding the Sub-group 2:
- Spatial heterogeneity of pressures and their impacts on biodiversity. How better considered these aspects when defining relevant scales?
 - In the broader context of the IMAP framework there is the need to keep the monitoring requirements manageable. Especially, but not exclusively, when considering biodiversity, it has been recommended (UNEP(DEPI)/MED WG.432/4) to focus on “representative sites”. Common understanding? Need for a specific monitoring?
 - When considering biodiversity, but not exclusively, decreasing the monitoring frequency is possible for locations where established time series show the status to be well below risk levels of concern, and without any deteriorating trend over a number of years.
62. Regarding the Sub-group 3:
- Regarding EO7 it is essential to recall that it is not the scale of the construction that is important but the scale of the impacts. The chosen spatial and temporal scales for monitoring must be able to cover all the habitats of interest that could be potentially impacted. The scale determination should therefore also take into account the scales used for the EO1 habitat assessments.
 - Regarding EO8 and the CI 16, the availability of well trained personnel for GIS digitalization and relevant information sources (in this case recent maps having adequate spatial resolution) are considered essential as well as the requirement for agreed procedures to be applied uniformly throughout the coastline.
 - Regarding EO8 and Candidate Indicator 25 the interpretation of the results obtained by different analytical units of the coastal zone may be revised by local experts in view of local-specific

socio-economic, historic and cultural dimensions, in addition to specific geomorphological and geographical conditions. In any case, it is important to take into account the implications of the different delineations on the interpretation of the results.

63. The audience was split into 3 groups discussing the 3 main clusters. Discussion on the issues identified as priorities on the definition of relevant spatial and temporal scales for the implementation of national IMAP and specifics of marine litter, biodiversity and fisheries and coastal and hydrography monitoring.

64. Participants has been embarked on a discussion per sub group and share their points of views and experiences related to the definition of relevant spatial and temporal scales for the implementation of national IMAP common indicators and specifics of marine litter, biodiversity and fisheries and coast and hydrography monitoring.

65. After the discussions in sub groups, the rapporteurs exposed the main conclusions.

66. Regarding the sub group 1 (Pollution, Marine Litter and Eutrophication cluster), the audience agreed on:

- Use sediment mapping for the toxicology of seawater
- The concentration of pollution in mussels is under the pollution level but following the sediment level, mussels are highly polluted
- Evaluation of substances especially for metal
- Pollution accidents and spillages in the Mediterranean have decreased significantly since the 70's
- Gap to monitor the impacts of pollution on biota
- Impact of industrial oil spillages: those that are not only marine spillages as the precision and accuracy of the impact of pollution are high
- MPA are also affected by oil spillages
- Regarding eutrophication, phytoplankton communities must be taken into account in a parallel program in CI 13 and CI 14;
- Discussions on whether satellite imagery is used on coastal eutrophication or on larger scales;
- Eutrophication should be combined with marine litter when monitoring hot spots;
- Microlitter in beach monitoring is still an issue;
- EEA developed a marine litter watch app and they are discussing the effectiveness of this app;
- Scales and strategy: monitoring versus research monitoring.

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| <p>EO5 EUTROPHICATION</p> | <ul style="list-style-type: none"> ● Phytoplankton communities to be taken into account in a parallel program feeding EO5 and their common indicators (CI13, CI14). Therefore, future candidate indicators in a new IMAP cycle. ● Coastal eutrophication <i>versus</i> Larger Scales (satellite imagery), depending on inputs. ● Examples from Israel found resolution could be a problem. ● Egypt performed on site calibrations. ● Morocco pointed about sensitivity in measurements. ● Egypt will combine Eutrophication selected sites (n=32; hot spots, coastal and reference) with Marine Litter monitoring focusing in “hot spots” (n=to be determined). |
| <p>EO9 POLLUTION</p> | <ul style="list-style-type: none"> ● Turkey is planning to revise the scale every 5-year. They have a 3-years new programme (2017-2019) with 269 sites (including the Mediterranean Sea) focusing on “hotspots”. |
| <p>EO10 MARINE LITTER</p> | <ul style="list-style-type: none"> ● European projects can involve non-European projects (MEDICIS). Opportunities to get on board! ● Morocco mentioned beach litter monitoring is taking place after the year 2000, although microlitter monitoring still an issue. Involve fisherman could help to provide data and solutions. |

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| | <ul style="list-style-type: none">• UNEP/MAP is coordinating currently some initiatives to start monitoring specially with the Mediterranean southern Member States. The work needs to continue.• The European Environment Agency is coordinating tools to test effectiveness of beach monitoring in EU countries. |
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67. Regarding marine litter and pollution monitoring, regarding scales and monitoring strategies, Montenegro raised the point of low number of monitoring stations and the need to revise the established ones. These actions should help to further define thresholds, baselines and scales. Some data on EO10 through research projects available.

68. Related to this point, participants reminded the difference between routine monitoring vs Research (observation) monitoring. Monitoring need to comply with IMAP requirements. Compliance monitoring (mid- long-term monitoring) is important for IMAP.

69. Also, participants highlighted the difference between hotspot (thus, already polluted) and impacted coastal sites suggesting the later as a better proxy to evaluate the environment.

70. An example was presented regarding “temporal scales for monitoring”. Indeed, in Egypt, 4 times a year, CIs for Pollution are monitored for 32 sites. It was said that marine litter will be added but not for all stations. Monitoring is done by accredited laboratories and in Egypt, reference sites are clean. It has been said that monitoring in hot spots should be done with multiple points (typically 6).

71. Participants acknowledged that the main challenge is to reduce the number of monitoring stations. There is a need to define new monitoring station and strategies. There are skills at sub regional level and countries are ready to work on the revised IMAP.

72. Participants agreed that the main issue is the lack of a committee ensuring that every scientist could speak. Marine monitoring should be based on sound science (e.g. France could analyse contaminants below the detection level). It was pointed out that scientific observations of today allow preparing the monitoring of tomorrow.

73. Some participants acknowledged that there is a need to revise their national monitoring programs because in some places the pollution is increasing, (e.g. in the Marmara Sea, in Turkey).

74. It was pointed out that the Moroccan Monitoring Strategy doesn't focus on hotspots but on the impacts of pollution all along the coast.

75. Regarding Marine Litter monitoring, some participants stressed that it is very demanding and it needs science. It's a challenge because it's also not easy to involve citizen on the long term.

76. An important point has been raised by the audience regarding the importance to split in two what is observable and what is not visible. It seems important to involve fishermen and raise their awareness on marine litter. We should ask them to weight the amount of litters they capture. In fact, the audience stressed the importance of participative science.

77. Regarding the sub group 2 (Biodiversity, NIS & Fisheries), the audience expressed the following points:

- Contracting Parties queries whether there are available IMAP elements sufficient to define scales of monitoring at national level;
- More work needs to be done at a sub-regional level;
- Data should be collected from national monitoring programmes. This is to ensure to have a baseline of data.
- More networking should be done among scientists;

- More work on standardized protocols should be done;
- There is lack of data or sometimes it exists but not publicly available;
- Strong recommendation to involve stakeholders to define scales of monitoring.

78. With regards to the following question: *are the available IMAP elements (GES components, as defined by the EcAp EO and indicators, QSR fact sheets) sufficient to define scales of monitoring at national level?* The audience acknowledged that IMAP sets a base to define the monitoring activities to be done. Defining scales for IMAP implementation at national level is very relevant but there is a need to put together efforts at sub regional level.

79. The audience also said that great parts of the EOs are already monitored at national level but there is a need to do more for some CIs. It is necessary to capitalize data from national monitoring programmes and other programmes with focusing on existing gaps.

80. With regards to the following question: *How science can best help to define these scales?* The audience agreed that there are many national and international institutions that should invest on science for regulatory purposes. Science and scientists have to investigate on practical issues to answer to managers and stakeholders. There is a need for networking among scientists even on interdisciplinary tasks and it is necessary to agree on standardized protocols.

81. With regards to the following question: *In a next step, how science can support the adoption and then the implementation of national monitoring programmes in a coordinated manner at Mediterranean level?* The audience pointed out that contacts should be promoted among ministry of research, ministry of environment, ministry of fisheries and other authorities and stakeholders. Moreover, virtual courses (E learning platform) could be organized with clear ToR ensuring dissemination of knowledge after the courses. Finally, the audience suggested involving as observer other countries in pilot sub regions to monitoring activities.

82. With regards to the following question: *What are the main difficulties the Southern Mediterranean countries are facing regarding the definition of the national monitoring scales?* The audience mentioned that there are difficulties to have data trends to understand processes and reminded the presence of disperse (and sometimes not localized) data which are not centralized in data sets.

83. With regards to the following question: *How to support the implementation of the national IMAP compatible integrated monitoring programmes, with a focus on specific needs of Southern Mediterranean countries?* The audience stressed that there is a need to have mixed research teams (mixing disciplines) on specific issues at regional and sub regional levels. Then, there is a need for stakeholders' involvement and a need for coordination, at the national and sub regional levels.

84. Regarding the sub group 3 (Coast and Hydrography cluster) the audience acknowledged:

- Theory is available but there must be more assistance with implementation;
- Data availability is a challenge for linking habitat maps related to EO1 Biodiversity to EO7 Hydrography, as well as a free access of public data;
- More capacity building is needed for the implementation of EO7 and EO8 indicators, such as for modelling, GIS, step by step approach, etc... ;
- The European Space Agency has a software dealing with coastal elements; but a step by step guidance should be proposed to actually apply this software.

85. PAP RAC reminded that the length of the coastline considers natural areas and those occupied by human activities (how many kilometers are still natural or already occupied). With regard to EO7 on hydrography, the spatial scale concerns the physical alterations of the environment and the impacts of new constructions only (decided in CORMON and incorporated into Indicator Guidance Fact sheets for EO7).

86. PAP RAC reminded that the spatial scale for the Indicator on "Land use / cover change" is

monitored in competent coastal units (municipality, wilaya, countries...) as defined in the ICZM protocol. The approach consists in looking on the changes among five cover classes (artificial surfaces, agricultural, forests and semi-natural, wetlands, and water bodies) and to monitor how these classes change from one monitoring to another. For that approach, aerial photos and remote sensing are of key importance to do analysis (e.g: ESA - European Space Agency and SENTINEL satellite imagery; COPERNICUS – already the marine survey and coastal survey on going).

87. The audience pointed out the important role of interpretation of the results by local expertise, especially when it concerns land use / land cover changes.

88. PAP RAC reminded that the temporal scale for monitoring CI 15 is yearly up to 5 years after the construction, and bi-annually (every two years) following 10 years after the construction. For CI16 the monitoring should be done every 6 years.

89. The audience stressed out that the main difficulties that Southern Mediterranean countries are facing regarding the implementation of the national monitoring are a need of capacity building and training on use of GIS (well-trained experts on basic layers needed for monitoring for the three indicators) and modelling (need for training the programmers at national levels to use software). They also need financial capacity to buy data.

90. As far as concerned the usefulness of GIS, participants said that to measure changes on sea surface that's fine but not to monitor intermediate and deep waters.

91. With regards to the question: *How science can best help to define these scales?* The audience said that science is needed to define spatial scale for building new installations/structures. Indeed, environmental impact assessments (before and after building) are necessary. The audience suggested to link current monitoring with new environmental impact assessments. The audience also agreed that science is also needed for the definition of the national monitoring scales.

92. In addition, it has been noted that regarding the definition of spatial and temporal scales for coast and hydrography monitoring, it's crucial to consider natural variability of the coastline's position. The example of the Knowseas project has been given in which this aspect was the initial work asked to scientists. Therefore, an official coastline should be defined first (if not yet available) and all monitoring should use the same coastline, otherwise there is no possibility for comparison, regardless of natural/induced processes such as coastal erosion.

93. With regards to how make capacity more effective, participants suggested to promote South-South training and specific training as soon as the national IMAPs are adopted.

DISCUSSION

94. The audience pointed out that there are some common problems such as availability of data; stronger connections between policy-makers, and between scientists themselves; lack of coordination between projects at regional level which to limit synergies and create overlapping.

95. During the discussions, it appears necessary to go from costal monitoring to offshore monitoring. It could be a future implementation of IMAP. It's possible to look forward to another workshop more focusing on offshore monitoring.

96. In line with the previous series of research project in the Mediterranean (FP7 programme), it was mentioned the MEDCIS project, focusing on marine litter monitoring and started in April 2017) which, allows a better coordination of the MSFD implementation at the Mediterranean level and encourage the work with the southern countries.

On another hand, it was also presented the BLUEMED Initiative which is a research and innovation agenda to promote the blue growth. There are two main messages: (i) it's absolutely necessary to imply

the southern Mediterranean countries (H2020 actions to finance projects), (ii) the blue growth is not possible without a good environment status.

97. Participants pointed out that capitalisation of previous projects or experiences is very important. It was reminded that one of the Decisions of the COP 19 was to organize the work in a pragmatic manner and think about next steps.

98. Another issue that raised interest was that it's important to use and capitalize existing data and knowledge. There is no need for more indicators and data. There is a need to synthesize, simplify and to be pragmatic and work at transboundary levels: the ecoregions.

99. At the end of the session, participants alerted that there is a multiple interface, not only Science and Policy but political, governments, administrations, stakeholders.../ interfaces. Stakeholders are missing here. They have to come on board, this message is essential.

Examples of other RSCs: from monitoring to assessment at regional level

100. Ms Roddier-Queffelec from EEA, delivered a presentation on examples of the marine reporting units for Europe and approaches for defining scales of assessment. This presentation refers to the EU MSFD working group of DIKE. The presentation allowed to make a transition between the two sessions of the workshop: the "definition of relevant scales of monitoring" and "of assessment". It will highlight the fact that the monitoring allows to feed the assessment and that the concern of scales is linked but methods are different. Indeed, the different scales of assessment and nested approach further allow considering features and impacts in transboundary context at the relevant scale and adjusting monitoring activities/requirements to the needs of the assessment scale concerned.

Closure of the SPI session

101. The Chairperson presented first informal conclusions of the SPI session considering that the official conclusions and recommendations will be discussed after the session dedicated to the QSR.

102. The Chairperson concluded the session of the day and thanked the participants in her closing remarks for their constructive contribution to the meeting which resulted in the high-level discussions and presentations.

103. Plan Bleu took the floor and said that the issue of "the definition of spatial and temporal scales" is a relevant issue as countries need to revise their monitoring plan as part of the implementation of IMAP in a coordinated manner at the regional level, mainly taking into account national waters beyond coastal waters and some new components such as specific aspects regarding Biodiversity and marine litter.

104. Discussions emphasized the role of science, but stressed that regulatory monitoring such as IMAP should be driven by managers.

105. However, the exchanges also showed the diversity of situations between European countries that are required to implement the DCSMM, the Adriatic countries, which benefit from a strong integrative strategy, and southern countries with contrasting situations, some of them benefiting from well-run systems, and others from systems to be consolidated or rebuilt.

106. According to the audience, the right way is to capitalize, be pragmatic, simplify and articulate the efforts made by the Countries and EcApMEDII project's partners with the blue growth.

107. After the expression of usual courtesies, the Chairperson declared the SPI session closed at

17.30 hours on 27th April 2017 and remembered that the 28th starts the session dedicated to the QSR and draft assessments factsheets (Agenda item 4).

Agenda item 4. Regional Assessment of the Mediterranean Marine and Coastal Environment: the Development of the Quality Status Report

108. The Secretariat introduced the mandate, structure and timeline for the development of the 2017 Quality Status Report (QSR). The 19th COP of the Barcelona Convention in 2016, Mediterranean countries adopted the Integrated Monitoring and Assessment Programme of the Mediterranean Sea and Coast and Related Assessment Criteria (IMAP - Decision IG.22/7), and this included agreement on the development of a Quality Status Report (QSR) for the Mediterranean by the end of 2017.

109. This was followed by three presentations on the QSR Assessment Factsheets for Biodiversity, pollution and Marine Litter, and Coast and Hydrography.

110. SPA/RAC introduced the draft QSR Assessment Factsheets on Biodiversity, presented in document UNEP(DEPI)/MED WG.438/4. In the discussion that followed, national experts noted the disparity among data and information from the countries related mainly to the lack of dedicated monitoring programmes, and requested SPA/RAC to further detail the methodology section of the factsheet related to the sources of all data and information, as well as the countries which have contributed to provide the information and the temporal scale of the assessment. For Common Indicators 1 and 2: Habitat distributional range and Condition of the habitat's typical species and communities, respectively, national experts suggested including soft communities in this assessment in addition to the hard-benthic habitats. Regarding the Common Indicator 3: Species distributional range, national experts expressed their interest to provide additional information based on the national monitoring activities and research studies on marine mammals and sea turtles. The Secretariat also confirmed that GFCM would support UNEP/MAP through the development of the assessment factsheets related to the six common indicators related to the EO3: Harvest of commercially exploited fish and shellfish. Participants stressed the need to look at the synergies between fisheries (and bycatch) and biodiversity in the finalization of the assessment factsheets.

111. MEDPOL presented the content of the draft QSR Assessment Factsheets on Pollution and Marine Litter, as elaborated in documents UNEP(DEPI)/MED WG.438/5 and UNEP(DEPI)/MED WG.438/6. Regarding the Pollution Indicator Common Indicator 17: Concentration of key harmful contaminants measured in the relevant matrix, the assessment factsheet was based on existing data in the MEDPOL database. Participants noted that many countries have not submitted data to MEDPOL on a consistent basis, and this caused limitations in the analysis of data. Several national participants committed to follow up with MEDPOL Focal Points for future more regular reporting. It was suggested that some work is still needed to harmonize the information in the extended and brief sections of the assessment factsheets and further elaborate the conclusions and gaps. One country suggested that in the revision data below the detection limited should be included. Regarding Indicator 19: Occurrence, origin (where possible), extent of acute pollution events (e.g. slicks from oil, oil products and hazardous substances), and their impact on biota affected by this pollution (EO9), it was suggested that more work is undertaken, to include land-based sources of accidents (and harbour commercial activities), and to establish linkages between the pollution events and marine protected areas. For the two Marine Litter indicators under Ecological Objective 10, several countries offered to provide additional new studies in support of the finalization of the assessment factsheets.

112. PAP/RAC presented the content of the draft QSR Assessment Factsheets on Biodiversity, in document UNEP(DEPI)/MED WG.438/7.

113. PAP RAC presented the current status regarding information for QSR for all three indicators: Common Indicator 15 of EO7 Hydrography; and Common Indicator 16 and Candidate Common Indicator 25 of EO8 Coastal ecosystems and landscapes. Due to the fact that all the

three indicators were comparatively new in the framework of UN Environment/MAP, there was only partial and general information available on the Mediterranean status. He urged the Contracting Parties to provide additional information to fill the knowledge gap, if available, and in particular to provide case studies, pilot studies or project reports related to national monitoring exercises to enrich the QSR by May 26, 2017.

114. It was asked why Common Indicator 15 was focused on coastal structures and not on off-shore structures as well. PAP/RAC answered that this is a highly complex indicator, so for the first monitoring cycle the information on coastal structures are relatively more available, since monitoring tends to be more present in coastal waters. In addition, it seems that in Mediterranean off shore structures are less present than elsewhere, i.e. there is potentially greater impact from coastal structures on hydrographic conditions in Mediterranean since these structures are more widespread.

Agenda item 5. Any Other Business

115. Under the eight Agenda item, participants didn't raise and discuss any other matters.

Agenda item 6. Conclusions and Recommendations

116. The Secretariat presented the draft Conclusions and Recommendations of the meeting which after minor changes were adopted and are included in Annex III to this report.

Agenda item 7 Closure of the Meeting

After the expression of usual courtesies, the President declared the meeting (both SPI and QSR sessions) closed at 17:30 hours on 28 April 2017.

Annex I
List of Participants

LIST OF PARTICIPANTS

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|--------------------------|--|
| ALBANIA / ALBANIA | <p>Ms Klodiana Marika Director of Biodiversity and Protected Areas Ministry of Environment Blv. Zhan d'Ark, Norbert Jokl 23 Tirana Albania</p> <p>Tel: +355 42 267 623 E-mail: Klodiana.Marika@moe.gov.al</p> |
| EGYPT/EGYPTE | <p>Mr Samir Nasr Professor University of Alexandria Alexandria Egypt</p> <p>Tel: +20 34251038 E-mail: samir_nasr@yahoo.com</p> |
| FRANCE / FRANCE | <p>Mr Jean-Paul Lecomte IFREMER Coordination nationale DCSMM/ MSFD National Implementation Rue de l'Île d'Yeu 44311 Nantes Cedex 3 France</p> <p>Tel: +33 2 40 37 42 66 E-mail: jean.paul.lecomte@ifremer.fr</p> |
| ISRAEL / ISRAEL | <p>Mr Frederic Arzoine Deputy Director Marine environmental protection division Ministry of Environmental Protection Pal-Yam 15a P.O. Box 811 31333 Haifa Israel</p> <p>Tel: +97248663511 E-mail : freda@sviva.gov.il</p> |
| ITALY / ITALIE | <p>Mr Roberto Giangreco Officer Italian Ministry of Environment Land and Sea Via Cristoforo Colombo 44 00147 Rome Italy</p> <p>Tel. +39 0657228406 E-mail: giangreco.roberto@minambiente.it</p> |

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| LEBANON / LIBAN | <p>Mr Adel Yacoub Head Protection of Nature Resources Department Ministry of the Environment MarieRose Matli Bldg, 1st Floor, El Berbara St. Zahle Lebanon</p> <p>Tel: 00961 1 976 555 Ext 456 E-mail: a.yacoub@moe.gov.lb</p> <p>Mr Abed El Rahman Hassoun Researcher Conseil National de la Recherche Scientifique-Centre National des Sciences Marines P.O. Box 534, Batroun, Lebanon</p> <p>Tel: 00961 6 741582 E-mail: abedhassoun@cnrs.edu.lb</p> |
| LIBYA / LYBIE | <p>Mr Ali Ali Ragab El Kekli Director Technical Cooperation & Consultation Department Environment General Authority P. O. Box 83618 El Ghiran Tripoli Libyan Arab Jamahiriya</p> <p>Tel: +218 21 4873761 E-mail: arelkekli@gmail.com</p> <p>Mr Esmail Shakman Scientist EGA, Libya and Oceanography unit - Tripoli University Tripoli Libyan Arab Jamahiriya</p> <p>Tel: + 21 8214174537 E-mail: shugmanism@yahoo.com</p> |
| MALTA / MALTE | <p>Ms Tamara Micallef Assistant Environment Protection Officer Environment and Resources Authority</p> <p>Hexagon House, Spencer Hill Marsa MRS 1441 Malta</p> <p>Tel : +35622923662 E-mail: tamara.micallef@era.org.mt</p> |
| MONTENEGRO / MONTÉNÉGRO | <p>Ms Ivana Stojanovic Advisor Department for Sustainable Development and Integrated Coastal Zone Management Ministry of Sustainable Development and Tourism IV Proleterske, 19 81000 Podgorica Montenegro</p> |

| | |
|----------------------------|---|
| | <p>Tel: + 382 20 446 388 E-mail: jvana.stojanovic@mrt.gov.me</p> |
| MOROCCO / MAROC | <p>M. Rachid Firadi Chef de la Division de la Coopération Internationale Direction du Partenariat, de la Communication et de la Coopération Secrétariat d'Etat chargé de l'Eau et de L'Environnement Département de l'Environnement 9, Avenue Araar, Secteur 16 Hay Riad Rabat Maroc</p> <p>Tel: + 2125 3757 0640; +2126 7308 2319 E-mail: firadi@environnement.gov.ma, firadienvironnement@gmail.com</p> <p>M. Samir Benbrahim Chef Département de Surveillance du Milieu Marn Institut National de Recherche Halieutique Boulevard Sidi Abderrahman, Ain Diab Casablanca Maroc</p> <p>Tel: + (212)0522397385 E-mail: benbrahimsamir10@yahoo.fr; benbrahim@inrh.ma</p> |
| SLOVENIA / SLOVÉNIE | <p>Mr Mitja Bricelj Secretary Ministry of the Environment and Spatial Planning, Dunajska 48 1000 Ljubljana Slovenia</p> <p>Tel: +38614787477 E-mail: bricelj56@gmail.com; mitja.bricelj@gov.si</p> |
| TUNISIA / TUNISIE | <p>Ms Jamila Ben Souissi Professeur/Directrice Département des Ressources Animales, Halieutiques et des Technologies Agroalimentaires Institut National Agronomique de Tunisie (INAT) 43, avenue Charles Nicolle 1082 Tunis Tunisie</p> <p>Tel: +21 671287110 E-mail: jbensouissi@yahoo.com</p> |
| TURKEY / TURQUIE | <p>Mr Şule Bektaş Environment and urbanisation expert Ministry of Environment and Urbanisation Haymana Yolu 5. km Gölbaşı 06830 Ankara Turkey</p> <p>Tel: + 903124982150 E-mail: sule.bektas@csb.gov.tr</p> |

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NON GOVERNMENTAL ORGANIZATIONS/ORGANISATIONS NON-GOUVERNEMENTALES

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| MAREI UCC | <p>Mr Martin Le Tissier Executive Director Future Earth Coasts MaREI Haulbowline Road Ringaskiddy Co Cork Ireland</p> <p>Tel: +353214864308 E-mail: martin.letissier@ucc.ie</p> |
| EUROPEAN ENVIRONMENT AGENCY | <p>Ms Cécile Roddier-Quefelec Project Coordinator ENI SEIS Support Mechanism South Kongens Nytorv, 6 050 Copenhagen k Danemark</p> <p>Tel: +4533435940 E-mail: cecile.roddier-quefelec@eea.europa.eu</p> |

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

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| UNEP/MAP PAM/PNUE | <p>Ms Gyorgyi Gurban EcAp Project Officer 48, Vassileos Konstantinou 11635 Athens Greece</p> <p>Tel: +30 210 7273105 Fax: 210 7253196-7 E-mail: gyorgyi.gurban@unep.org</p> |
| UNEP/MAP MED POL PAM PNUE/MED POL | <p>Ms Virginie Hart Programme Officer 48, Vassileos Konstantinou 11635 Athens Greece</p> <p>Tel.:+30 210 7273122 Fax: +30 7253196-7 E-mail: virginie.hart@unep.org</p> |
| PLAN BLEU REGIONAL ACTIVITY CENTRE CENTRE D'ACTIVITES REGIONALES PLAN BLEU | <p>M Didier Sauzade Programme Mer Villa Valmer 271 Corniche Kennedy 13007 Marseille France</p> |

| | |
|---|---|
| | <p>Tel.:+33 643082023 E-mail:dsauzade@planbleu.org</p> <p>M Antoine Lafitte Chargé de mission 75 rue d'Endoume 13007 Marseille France</p> <p>Tel.:+ 33 668207225 or +33 786381720 E-mail: alafitte@planbleu.org</p> |
| <p>REGIONAL ACTIVITY CENTER FOR THE PRIORITY ACTIONS PROGRAMME (PAP/RAC) CENTRE D'ACTIVITES REGIONALES DU PROGRAMME D'ACTION PRIORITAIRES (CAR/PAP)</p> | <p>Mr Marko Prem Deputy Director Kraj sv. Ivana 11 21000 Split Croatia</p> <p>Tel.:+385 21 340475 Fax:+385 21 340490 E-mail:marko.prem@ppa.t-com.hr</p> <p>Mr Ivan Sekovski Programme Officer</p> <p>Tel.:+38521340480 Fax:+385 21 340490 E-mail: ivan.sekovski@paprac.org</p> |
| <p>REGIONAL ACTIVITY CENTER FOR SPECIALLY PROTECTED AREAS (SPA/RAC) CENTRE D'ACTIVITES REGIONALES POUR LES AIRES SPECIALEMENT PROTEGEES (CAR/ASP)</p> | <p>Mr Mehdi Aissi EcAp MED II Project Officer Bd. du Leader Yasser Arafat, La Charguia I, B.P. 337, Tunis1080 Tunisia</p> <p>Tel: 21671206649 Fax: 216 71 206490 Email: mehdi.aissi@rac-spa.org</p> |
| <p>INFORMATION AND COMMUNICATION REGIONAL ACTIVITY CENTRE (INFO/RAC)CENTRE D'ACTIVITÉS RÉGIONALES POUR L'INFORMATION ET LA COMMUNICATION (INFO/CAR)</p> | <p>Ms Celine Ndong Information Officer Via Vitaliano Brancati 48 00144 ROME RM Italy</p> <p>Tel: +39.06.50.07.21.72 Email: celine.ndong@isprambiente.it</p> |

INDEPENDENT EXPERTS / CONSULTANTS

Mr Carlos Guitart

Marine Sciences&Environment Consultant/Manager
c Londres 2 Apart 1-B
Lo Pagan
30740 San Pedro del Pinatar Murcia
Spain

Tel: + 34639305081

Email: guitart.carlos@gmail.com

Ms Maria Kaparis

38 Thane Villas
N7 7PG London
UK

Tel.:+ 44 7464729944

E-mail: maria.cparis@gmail.com

Mr Samir Grimes

Enseignant-Chercheur et expert
Ecole Nationale Supérieure des Sciences de la Mer et de l'Aménagement du Littoral
Cité 64 logements BT D N°9 , Ouled Fayet
16000 Alger
Algérie

Tel: + 21 3672554339

E-mail: samirgrimes@yahoo.fr

Ms Marina Penna

Researcher Consultant
ISPRA Institute for Environmental Protection and Research
via Vitaliano Brancati, 48
Rome 00144
Italy

Tel. +39 0650074703

E-mail: marina.penna@isprambiente.it

Annex II
Agenda of the Meeting

Agenda of the Meeting

Provisional Agenda

- Agenda item 1.** Opening of the meeting and organizational matters
- a) Opening of the Meeting
 - b) Rules of procedure for the meeting
 - b) Election of officers
 - c) Adoption of the Provisional Agenda
 - d) Organization of work
- Agenda item 2.** Further implementation of the Integrated Monitoring and Assessment Programme of the Mediterranean Sea and Coast and Related Assessment Criteria: Focus on spatial and temporal scales of monitoring, reporting and assessment
- Agenda item 3.** Best practices on reporting and monitoring scales (practices of regional seas and of Contracting Parties)
- Agenda item 4.** Regional Assessment of the Mediterranean Marine and Coastal Environment: the development of the Quality Status Report
- a) Biodiversity and Fisheries
 - b) Pollution and Marine Litter
 - c) Coast and hydrography
- Agenda item 5.** Any Other Business
- Agenda item 6.** Conclusions and next steps
- Agenda item 7.** Closure of the Meeting

Annex III
Conclusions and Recommendations

Draft Conclusions and Recommendations of the Science Policy Interface and Ecosystem Approach Coordination Group Joint Meeting on IMAP Scale of Monitoring and Assessment and QSR

The Science Policy Interface and Ecosystem Approach Coordination Group Joint Meeting on IMAP Scale of Monitoring and Assessment (the SPI Workshop) and QSR Workshop was held on 27-28 April 2017 in Nice, France, organized jointly by Plan Bleu and the CU/MED POL of UN Environment/MAP.

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

Conclusions and Recommendations in relation to the IMAP¹ of Scale of Monitoring and Assessment

1. The Meeting stressed the importance of further strengthening science-policy interface in relation to IMAP implementation and highlighted the need to share more openly existing potentially relevant scientific data ;

2. The Meeting welcomed the opportunity to discuss the scale of monitoring as it is a highly timely topic in light of ongoing work on the finalization of the revision of national monitoring programmes in line with IMAP;

3. Participants highlighted the importance to develop cost-efficient monitoring programmes and the need for further support to national monitoring implementation, both in form of possible pilot projects, stronger interaction with scientific projects and building also on monitoring opportunities provided by citizens science and possibly by new partnerships with business and public bodies managing relevant environmental data;

4. The Meeting underlined that in order to address different starting points and capacities of Contracting Parties, the work on IMAP implementation and the scales of monitoring approach must capitalize on existing information, best practices of each other and of other regions, in a simplified way, taking note that achieving or maintaining GES is one of the pillars of the Blue growth.

5. The Participants, while giving the specific comments under, were also encouraged to provide additional, written comments on the Working Documents of the SPI Workshop, by 11 May to Plan Bleu and UN Environment/MAP in relation to UNEP (DEPI)/MED WG. 438/3.

The SPI Workshop recommended the following points, as necessary actions for science based IMAP implementation, specifically in relation to scales of monitoring:

6. Further analyze most cost-efficient options of monitoring, as well as funding possibilities for implementation of IMAP;

7. Note difference between compliance monitoring in line with actual IMAP requirements and research (observation) monitoring, noting that they are complementary and that scientific observations are important for future evolutions of compliance monitoring such as IMAP;

8. Strengthen scientific and monitoring networks, around key IMAP common indicators, such as ones related to common indicator 6 on NIS;

¹Decision IG 22/7 Integrated Monitoring and Assessment Programme of the Mediterranean Sea and Coast and Related Assessment Criteria, so-called IMAP

9. Countries which have not yet done so, are required to report without further delay the pollution monitoring data as provided for in the provisions of the Convention and the LBS Protocol including past monitoring reports;
10. Develop specific trainings, in an efficient manner, in line with the specific needs of the relevant monitoring clusters and countries, in cooperation and building on existing partnerships and projects;
11. Both national and international institutions are called to build more on science for regulatory purpose;
12. Build more on opportunities offered by research programmes of the European Union, especially Horizon 2020, which are open to riparian countries across the region.

The SPI Workshop gave the following specific recommendations on scales of monitoring in relation to Pollution and Marine Litter:

13. In order to ensure the development of cost effective monitoring programmes, strong coordination is essential between national centers responsible for monitoring overall, to develop joint monitoring;
14. In relation to EO10 participants highlighted that Marine Litter is a new subject where still further research is needed to understand especially the impacts of the different types of marine litter.
15. Beach Litter can be monitored at relatively low cost, whereas micro-litter monitoring will be very challenging for many countries, and solutions will need to be found, such as engagement of fishermen for sampling;
16. Further, in relation to EO10, participants welcomed the ongoing work of UNEP/MAP (including the Marine Litter project) and new EC funded projects to support national revision of monitoring plans, and requested further support through projects and better coordination of projects;
17. Participants also welcomed in relation to EO10 the ongoing work of the European Environment Agency on coordinating tools to test effectiveness of beach monitoring in EU countries.

The SPI Workshop gave the following specific recommendations on scales of monitoring in relation to Biodiversity and Non-Indigenous Species:

18. Noting that IMAP sets a base to define the monitoring activities to be done and that the IMAP process is very relevant to define scales at national level, there is also a need to put together efforts at sub-regional level;
19. It is key to build stronger networks, more communication channels among scientists even on interdisciplinary tasks;
20. There is the need to capitalize data from national monitoring programmes and other programmes also focusing on existing gaps.

The SPI Workshop gave the following specific recommendations on scales of monitoring in relation to Coast and Hydrography:

21. There is a need to provide assistance to countries on the implementation of the common indicator 15 (hydrography), in particular for the determination of the baseline conditions, modelling for the impact assessments prior to construction, and monitoring habitats impacted by hydrographic alterations after construction has been completed;
22. It is key to have national official coastline and coastal zone delimitation in order to define the spatial scale for monitoring the coast related to common and candidate indicators; Scientists to assist policy makers, in coastline definition in case of ambiguities
23. Data availability linked to EO1, habitats in relation to common indicator 15 (hydrography) is a challenge and scientists involved in the biodiversity monitoring would need to provide an input to this common indicator at a higher resolution spatial scale;
24. Open source software available (such as European Space Agency's C-TEP) step by step guidance would be beneficial for the implementation of the coastal and hydrography common indicators.

Conclusions and Recommendations in relation to the draft 2017 Quality Status Report (QSR2017)

25. The Meeting welcomed the structure, lay-out and ongoing work of the QSR2017;
26. The Meeting stressed that purpose of the QSR 2017 is to see where we stand to achieve GES to ensure ecosystem based management and this should be further reflected in the draft QSR2017;
27. The Meeting stressed the importance to clarify for each indicator the geographical scale of Assessment, and as such, also include the countries who are covered by sub-region/region;
28. The Meeting requested that specific attention be given in the revision of the Assessment Factsheets to clarify the exact sources of information, data or meta-data and reports used for the Assessment, including temporal scales.
29. The importance of more inclusion of fisheries related data and need of further elaboration of linkage between biodiversity and fisheries, in cooperation with General Fisheries Commission for the Mediterranean, was highlighted;
30. With regards to the biodiversity assessment factsheets, all comments and suggestions would be included in the revised factsheets following the SPA/RAC Focal Points meeting;
31. In addition, the Meeting welcomed the offer for the creation of an online working groups to further develop the Assessment Factsheets, with a deadline of 26 May as follows:
 - a) Habitats (CI 1 and 2)
 - b) Marine mammals (CI 3, 4 and 5)
 - c) Sea turtles and sea birds (CI 3, 4 and 5)
 - d) Invasive NIS species (CI 6);
32. With regards to the data used from the MEDPOL database for Common Indicator 17, it was agreed that the excel sheets used to prepare the graphs would be shared with participating

- countries, and further clarification would be provided to Morocco and Montenegro regarding their data submissions;
33. The Meeting requested that in the further development on the Assessment Factsheet for Indicator 19 on acute pollution events, take into consideration all accidents including from land based sources, and to consider an analysis comparing the reported accidents with the location of marine protected areas.
 34. Regarding Indicators 22 and 23 on Marine Litter, several additional studies were suggested and will be submitted to the UNEP/MAP Secretariat following the meeting for inclusion;
 35. In relation to coast and hydrography, the Meeting acknowledge the work undertaken to prepare the indicator assessment factsheets, taking into account the limited data and information available, especially in the southern Mediterranean and noted that the aspect of offshore installations could not be assessed in this QSR report but would be further developed for further assessments.
 36. The Meeting also noted that in the Gaps section for each Assessment Factsheet mention could be made of key capacity or knowledge gaps;
 37. Participants were encouraged to provide written comments by 26 May in relation to UNEP (DEPI)/MED WG. 438/4, UNEP (DEPI)/MED WG. 438/5, UNEP (DEPI)/MED WG. 438/6 and UNEP (DEPI)/MED WG. 438/7.