

1. Introduction

Operational Paragraph 6 of decision IG.20/4, "Implementing MAP ecosystem approach roadmap: Mediterranean Ecological and Operational Objectives, Indicators and Timetable for implementing the ecosystem approach roadmap" adopted by the Contracting Parties to the Barcelona Convention at its 17th meeting in Paris, decided to establish an EcAp Coordination Group (EcAp CG) consisting of MAP focal points, the Coordinating Unit, the MAP components and MAP partners to oversee the implementation of the ecosystem approach, identifying progress gaps in the implementation of the road map and finding feasible solutions for the advancement of the EcAp agenda.

The first meeting of the EcAp CG decided to receive, review and endorse the work of the Clusters of GES & Targets Correspondence Group regarding the definition of GES and setting of targets, which will be developed through a common methodology at the Mediterranean and appropriate subscales.

The purpose of this document is to share progress of the work carried out since the last EcAp Coordination Group meeting held in Athens in May 2012, propose activities to be undertaken to achieve expected outcomes in Decision IG.20/4 and discuss a revised timeline with priorities for the future.

2. Progress in implementing the Ecosystem Approach in the Mediterranean

2.1. Adoption of an integrated assessment policy

As established in Decision IG.20/4 an important step of the EcAP implementation will be the establishment of the integrated policy on assessments for UNEP/MAP. Such a policy will be aligned with the EcAp time frame and clarify the synergies to be established between different sectoral assessments in order to take into account ecological objectives and progress in their implementation in a coherent and consistent manner.

The preparation of the integrated assessment policy will start by a stocktaking analysis of current situation, followed by analysis of challenges, requirements and elements in the context of the EcAp and include internal consultations within MAP System. The integrated cyclical assessment policy for MAP is planned to be drafted in the second quarter of 2013 and submitted to COP 18 for adoption.

2.2. Economic and Social Analysis

The purpose of the socio-economic assessment of the Mediterranean is to further develop the preliminary study on ecosystem services carried out by Blue Plan/RAC - UNEP/MAP during the previous biennium.

The process is starting with the meeting of Correspondence Group on Economic and Social Analysis (COR ESA) which will take place in Plan Bleu offices in Nice (France) on 11- 12 April 2013. It will work to ensure efficient coverage and in-depth discussions and common understanding of objective and the nature of the economic and social analysis to be performed at regional, sub-regional and national scale of the main human activities using the Mediterranean Sea and its coastal zone. This assessment will include an evaluation of the costs of degradation for human wealth in the absence of the implementation of the relevant actions plans and programmes of measures aiming to achieve or maintain GES (step 7 EcAp road map), as an argument to implement them.

It is planned to finalize the regional scale analysis and submit to EcAP CG and MAP Focal Points for their consideration before its submission to COP18. A similar process will also be followed for the preparation and finalization of Guidelines for National Analysis.

2.3. Development of Good Environmental Status and Targets

The Correspondence Group on GES and Targets (COR-GEST) is composed of national experts designated by the Contracting Parties, and coordinated by the UNEP/MAP CU in cooperation with relevant MAP components. It works to ensure efficient coverage and in-depth discussions and analysis of all EOs and made up of 3 clusters: 1) Pollution and litter related EOs (EOs 5, 9, 10 and 11); 2) Biodiversity and Fisheries related EOs (EOs 1, 2, 3, 4 and 6); and 3) Coast and Hydrography related EOs (EOs 7 and 8). A Regional Thematic Expert was assigned to each cluster to ensure coordination and provide technical assistance.

The first round of meetings of these three clusters is finalized:

- The COR-GEST Pollution and Litter Cluster, met in Sarajevo, Bosnia and Herzegovina on 29-30 October 2012;
- The COR-GEST Biodiversity and Fisheries Cluster (organized in close cooperation with GFCM) met in Rome, Italy on 7-8 February 2013; and,
- The COR-GEST Coast and Hydrography Cluster met in Ankara, Turkey on 12-13 March 2013.

The outcomes of the meetings of three Clusters of COR-GEST, i.e. first set of GES and targets for the review and consideration of the EcAP CG are explained in Section 3. The document includes the general recommendations and next steps agreed by the Correspondence Group participants as a reference for further recommendations by the EcAp CG.

As requested by the first meeting of EcAp CG, the Secretariat prepared a synthesis report on existing targets in the Mediterranean and provide in the Information Document "WG. 376/Inf.3 – Existing targets related to 11 Ecological Objectives".

2.4. Preparation of a regional integrated monitoring programme

The integrated monitoring programme will be prepared by MED POL in cooperation with all components as appropriate, in line with the EcAp Ecological Objectives, Operational Objectives relevant targets and indicators. MED POL monitoring officer has left the organization as of November 2012. As per decision of the 76th Bureau last February, initiation of recruitment process is awaiting MAP Focal Points approval. Since this period coincided with the time dedicated for GES and targets development, a decision is urgently needed to avoid delays in the preparation of the integrated monitoring programme.

Needs assessment for capacity building and technical assistance to countries for drafting national monitoring programmes will take place in 2014.

2.5. Developing and reviewing relevant measures for implementation of EcAp

The UNEP/MAP Barcelona Convention has already developed several Strategies and Action Plans to enhance the quality and management of the marine environment and its resources many of which are being revised, including SAP BIO, SAP MED and others. All those revisions as foreseen in the UNEP/MAP Programme of Work during this biennium and next taking into account the progress achieved in the implementation of the Ecosystem Approach both in terms of the objectives to be achieved as well as in terms of the harmonized timeline and cycle agreed.

3. Outcomes of the Correspondence Group work on Good Environmental Status and Targets

3.1. Background

In each meeting of the clusters of COR-GEST, the Secretariat provided the Countries, relevant MAP Partners and invitees two documents, one on existing targets corresponding to EOs of the Cluster, and a proposal of GES and targets.

- The COR-GEST Pollution and Litter Cluster documents:
 - UNEP(DEPI)/MED WG.372/2 “Approaches for definition of GES and setting targets for the “pollution” related Ecological Objectives in the framework of the Ecosystem Approach - (EO5: Eutrophication, EP9: Contaminants, EP10: Marine Litter, EO11: Noise)”
 - UNEP(DEPI)/MED WG.372/Inf.3 “Information document: “Existing targets and EQO regarding pollution in the framework of UNEP/MAP MEDPOL Programme”
- The COR-GEST Biodiversity and Fisheries Cluster documents:
 - UNEP(DEPI)/MED WG.373/3 “Approaches for definition of Good Environmental Status and setting targets for the following Ecological Objectives (EO) in the framework of the Ecosystem Approach: EO 1(Biodiversity), EO 2(Non-indigenous species), EO 3 (Harvest of commercially exploited fish and shellfish), EO 4 (Marine food webs) and EO 6 (Sea-floor integrity)”
 - UNEP(DEPI)/MED WG.373/Inf.3 “Existing targets of relevance for the Mediterranean Sea regarding Biodiversity and Fisheries”
- The COR-GEST Coast and Hydrography Cluster documents:
 - UNEP(DEPI)/MED WG.374/3 “Approaches for definition of Good Environmental Status (GES) and setting targets for the Ecological Objective (EO) 7 “Hydrography” and EO8 “Coastal ecosystems and landscape” in the framework of the Ecosystem Approach”.
 - UNEP(DEPI)/MED WG.374/Inf.3 “Existing targets of relevance for the Mediterranean Sea regarding the following Ecological Objectives (EO) in the framework of the Ecosystem Approach:EO7 (Hydrography) and EO8 (Coastal Ecosystems and Landscape)”.

The participants discussed and provided comments on proposed GES and targets per each indicator of the Operational Objective of the 11 Ecological Objectives that was agreed by COP17 Decision IG.20/4.

3.2. Definitions

For the purpose of a common terminology, following annotations are provided for terms used in the document:

Good Environmental Status herein after referred to as GES can be defined as the desired status of the marine environment and its components. The determination of GES is based on the 11 specific Ecological Objectives and relevant indicators. GES may represent reference conditions in relation to which thresholds are set, using different methodologies.

GES Thresholds are used to define the boundary between an acceptable and unacceptable environmental status (GES or non-GES).

GES Reference conditions. For assessment purposes, it is necessary to define a reference state/condition (baseline) against which current and future state is compared. Reference

conditions describe the state of the marine environment (or a component) in which there is considered to be no, or very minor, disturbance from the pressures of human activities. Reference conditions may not necessarily reflect “background” or “historical” conditions and it is up to the regulator to decide whether GES will represent pristine or slightly impacted but still “good” status, allowing for a specified level of disturbance from the pressure(s) and hence to define the boundary between an acceptable state (GES) and an unacceptable state (non-GES)

GES Background or historical values represent the concentration pollutant that would be expected in “pristine” or remote sites, based on contemporary or historical data

Scale means the spatial and temporal order of ecosystem components, their assessment and good environmental status. Regional scale refers to the Mediterranean. Sub-regional scale refers to the 4 sub-regions established for the purpose of the Integrated Assessment or lower scale, as appropriate.

The GES Targets are defined in the framework of EU MSFD as “a qualitative or quantitative statement on the desired condition of the different components of, and pressures and impacts on, marine waters in respect of each region or sub-region” (EC MSCG 2011). GES targets should establish desired conditions, be measurable with associated indicators allowing for monitoring and assessment and be operational relating to concrete implementation of measures to support their achievement and move towards GES.

3.3. Summary of issues raised during discussions of three meetings of COR-GEST Clusters

The suggestions and recommendations provided in the three meetings are summarized below:

Quality of GES and targets

- During the discussions, GES was defined and targets were set on state and pressure on regional and sub-regional scale, as appropriate. GES state targets were defined as trends to improve environmental quality in risk areas and maintain the status’ in non-impacted areas, taking into consideration the relevant baselines.
- The Secretariat should make efforts to reduce, where applicable, and focus the targets to ensure their applicability through integration, prioritization and/or phasing studies.
- The Secretariat should further work to define relevant thresholds to facilitate the quantification of targets and revising/enhancing the indicators additional investigation on relation between human activities and impacts on the ecosystem, underlining the complexity of the coastal ecosystems/landscapes and hydrographic processes.
- No definition of GES and targets should be provided for indicators that are not relevant to an area, country, sub-region, habitat or species group.

Data availability

- The existence of data has been a distinctive mark in the discussions, especially in setting baselines for targets. For the agreed GES and targets for which there are available data, the Countries and the Secretariat decided to further work in order to provide information on the possible baseline values in relation to the relevant indicators and their corresponding targets. In cases which baselines cannot be set due to limitations or unavailability of data, COR-GEST suggested that the relevant

parameters should be included in the integrated monitoring programme of MAP, in line with EcAp Roadmap as agreed by COP17.

- It was agreed in the COR-GEST that the Secretariat and the Countries should further work in the future with a view to define, based on data availability, relevant thresholds for the agreed GES and targets, subject to the decisions by the Contracting Parties. Additionally, to get use of the existing tools and mechanisms, the Secretariat is working to base the pressure related GES and targets on the existing pressure targets adopted by the Parties in the framework of SAP MED and relevant Regional Plans.

Synergies and cooperation

- As mandated by COP 17, UNEP MAP continues cooperation with relevant EU MSFD working groups, with the view to enhance synergies for the definition of GES and targets, and share the Mediterranean experience in the European fora.
- Regarding the objectives on biodiversity and fisheries, the Secretariat collaborated with the GFCM and its scientific advisory bodies. GFCM experts participated in EcAP CG and Biodiversity and Fisheries Cluster meetings, provided data and information in quantifying relevant targets.
- ACCOBAMS, WWF (Mediterranean Programme and Turkey National Office), IUCN Mediterranean, EU FP7 projects PEGASO, PERSEUS, VECTORS and MEDINA, MEDPAN, MEDASSET, Clean-Up Greece, HELMEPA, Tethys Research Institute and Sound Seas also provided substantive input to discussions during EcAp and one or more Cluster meetings.
- In case of biodiversity, as the objectives and their corresponding operational objectives and indicators host specific references to species, the importance of continuing the collaboration with relevant organizations to further elaborate targets and finalize wording (in particular for cetaceans and marine birds) will be key to make the targets measurable and quantifiable.
- In the case of habitats, the Group requested the Secretariat to work on the habitat list for pelagic and deep sea habitat types to be considered under EO1. The Secretariat and SPA/RAC is working on the list which will also require contribution of relevant institutions.

Integration

- Special emphasis should be given to enhance integration and links between GES descriptions and targets and ensure further harmonization and integration within and between clusters.
- Biodiversity and fisheries resources are directly and indirectly linked with the targets set under all other Ecological Objectives. Thus enhancing integration and links between GES descriptions and targets and ensure further harmonization between clusters is essential for minimizing external factors in achieving the targets under Biodiversity and Fisheries related objectives.

Capacity Building

- Recalling that the effective implementation of EcAp in the Mediterranean will require a high level degree of ownership and active participation of countries, it is essential that

the regional process is supported by aligned national processes according to relevant national priority and strategies.

- Countries should be encouraged to identify experts for each EO. These experts can support the Correspondence Group representative so as to ensure adequate contribution of the countries to the objectives of the Correspondence Group meetings. To increase the efficiency and effectiveness of these national processes, the Secretariat should develop and carry out integrated capacity development activities to enhance the country capacities to implement these targets to reach GES (capacity building) and establish platforms for experience sharing.
- As a principle, GES and targets should take into account the financial and human resources in connection with the integrated monitoring.

Other issues

- The Countries should make use of existing tools like EIA, SEA and Cumulative Impact Assessment in realization of targets identified, where applicable.
- As an important part of the Mediterranean landscapes and seascapes, archaeological and cultural sites should be considered as a parameter in the implementation of Ecosystem Approach.

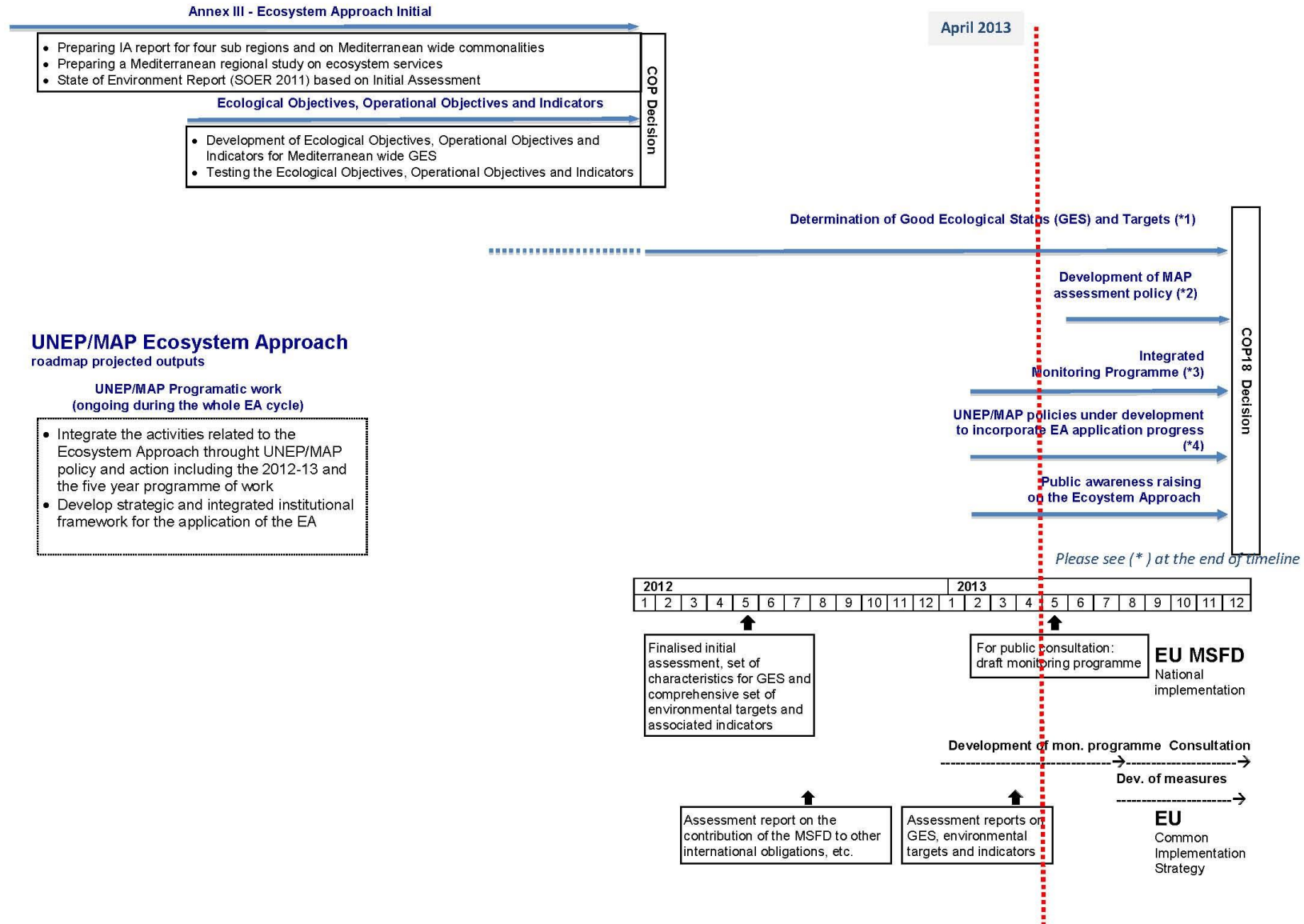
The discussions revealed a list of status statements describing the Good Environmental Status with a Mediterranean perspective per each Ecological Objective. The consolidated summary of the GES descriptions and draft list of targets is provided in Annexes 1 and 2.

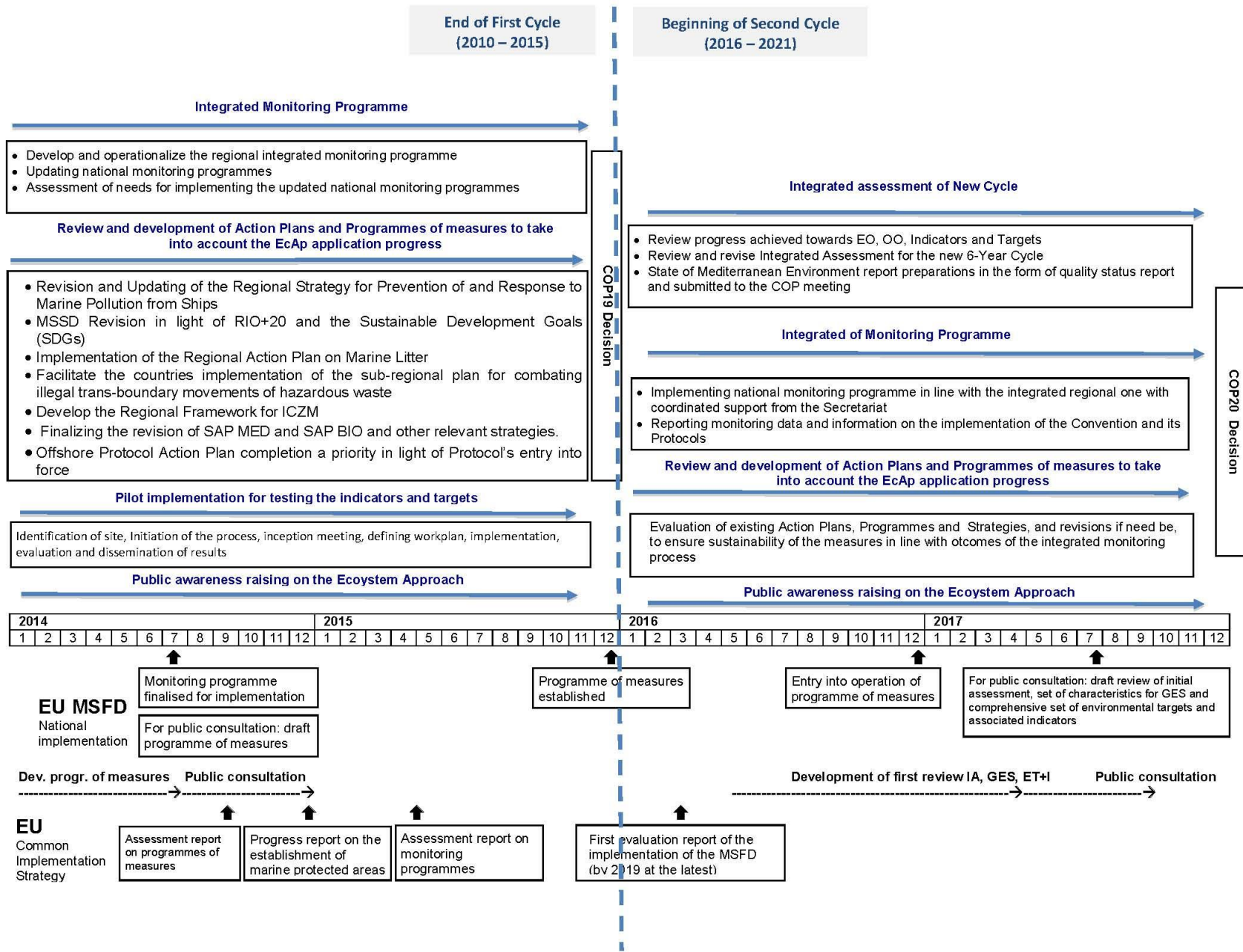
4. Timeline for 2013-2105

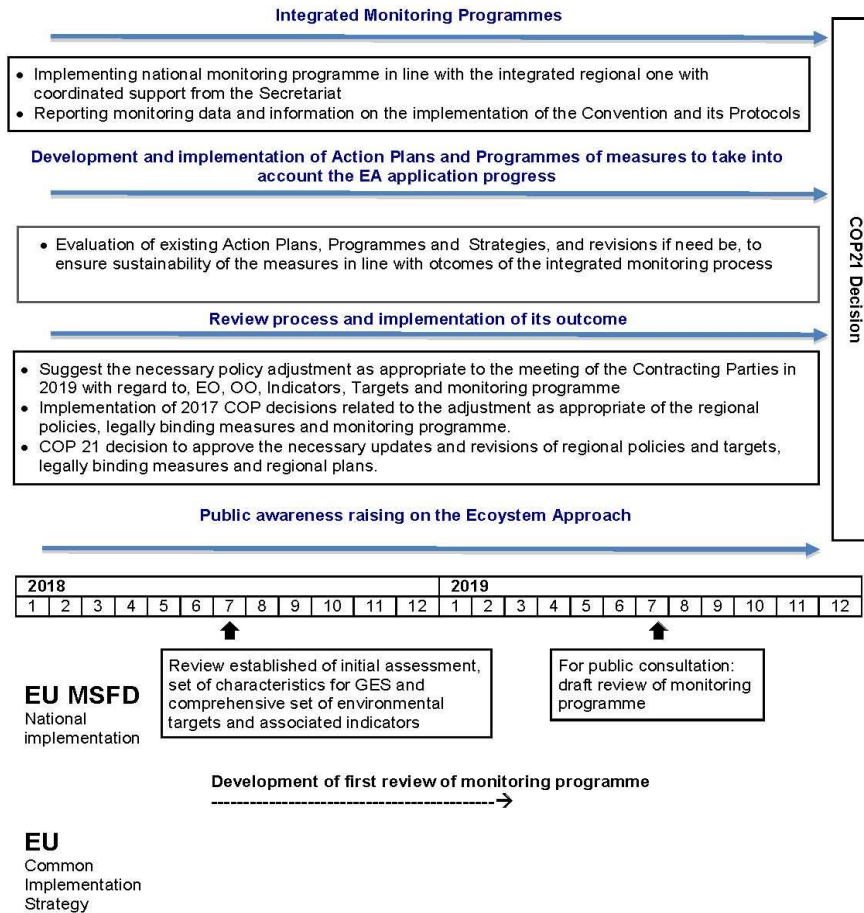
Activity	Details	Time
Adoption of an integrated assessment policy	<ul style="list-style-type: none"> • Stocktaking analysis • Analysis of challenges, requirements and elements of ECAP Approach • Internal consultations within MAP System. 	by COP 18 (December 2013)
Economic and Social Analysis	<p>Regional Scale Analysis</p> <p>Guidelines for National Analysis</p> <p>Correspondence Group on Economic and Social Analysis (COR ESA)</p>	<p>By COP18 (December 2013)</p> <p>Draft September 2013, Final by COP18</p> <p>April 2013, October 2013</p>
The development of Good Environmental Status and Targets	<p>Finalization of GES and Targets under COR –GEST Pollution and Litter as a segment back to back with MED POL FPs Meeting</p> <p>Finalization of GES and Targets under COR –GEST Biodiversity and Fisheries as a segment back to back with RAC SPA FPs Meeting</p> <p>Meeting on Targets Integration and Prioritization</p> <p>EcAp CG Meeting for approval of GES and targets</p>	<p>June 2013</p> <p>July 2013</p> <p>2nd week of July 2013</p> <p>One day before the MAP Focal Points Meeting in September 2013</p>
Pilot implementation for testing the indicators and targets	<p>Identification of site</p> <p>Initiation of the process, inception meeting, defining workplan, implementation, evaluation and dissemination of results.</p>	In 2014-2015 Biennium

<p>Preparation of a regional integrated monitoring programme</p>	<p>Mobilization of the necessary scientific and technical expertise, including national experts, research projects and organization of Correspondence Group on Monitoring (COR MON) meetings (Three Clusters)</p> <p>Coordination and consultation within MAP system and with other regional bodies</p> <p>Submission of the proposal to MAP decision making bodies</p> <p>Assessment of countries needs to implement the integrated monitoring programme</p> <p>Capacity building activities in countries in cooperation with on-going initiatives</p>	<p>June 2013 – May 2014</p> <p>October 2013 – May 2014</p> <p>EcAp CG Meeting – September 2014</p> <p>January - June 2014</p> <p>In 2014 and 2015</p>
<p>Developing and reviewing relevant measures for implementation of EcAp</p>	<p>Revision of SAP MED and SAP BIO and other relevant strategies as programme of measures under the EcAp of the Barcelona Convention.</p> <p>ICZM Action Plan implementation</p> <p>Offshore Protocol Action Plan completion.</p> <p>Revision and Updating of the Regional Strategy for Prevention of and Response to Marine Pollution from Ships</p> <p>MSSD Revision in light of RIO+20 and the Sustainable Development Goals (SDGs)</p> <p>Implementation of the Regional Action Plan on Marine Litter</p>	<p>On-going process towards COP18 (December 2013) and further work in 2014</p> <p>2014-onward</p> <p>In 2014</p> <p>In 2014-2015 Biennium</p> <p>In 2014-2015 Biennium</p> <p>In 2014-2015 Biennium</p>

REVISED TIMELINE







DETAILS OF 2013 ACTIVITIES	
(*1)	<ul style="list-style-type: none"> Definition of the process and methodological approach for the establishment of GES and Targets Establishment of GES relative to each Indicator Establish coordinated Targets per Indicator Formulation of ToRs and follow-up of socioeconomic and ecosystem services analysis to support target definition, developing guidelines for National Analysis, COR-ESA Meetings
(*2)	<ul style="list-style-type: none"> Stocktaking analysis Analysis of challenges, requirements and elements of ECAP Approach Internal consultations within MAP System.
(*3)	<ul style="list-style-type: none"> Preparatory work on regional integrated monitoring programme
(*4)	<ul style="list-style-type: none"> Revision of SAP MED and SAP BIO and other relevant strategies as programme of measures under the EcAp of the Barcelona Convention.

Draft Recommendations for EcAp CG considerations:

- **The EcAp CG welcomes achievements in EcAP process, takes note of the revised roadmap for this Biennium and endorses the revised timeline proposed by the Secretariat.**
- **The EcAp CG endorses the first draft list of GES descriptions for the 11 Ecological Objectives.**
- **The EcAp CG encourages the Secretariat to finalize the draft list of targets, taking into consideration the recommendations of the first meeting of EcAp CG and the COR-GEST Cluster Meetings, the discussions at this meeting and those at the meeting on integration and submit to COP18 after consideration by MAP Focal Points in their meeting in September 2013.**
- **The EcAp CG supports need expressed by COR-GEST for further consultations to complete the work of the Pollution and Litter Cluster and Biodiversity and Fisheries Cluster, and ask the Secretariat to carry out these consultations in segments back to back with of MED POL and RAC/SPA FPs meetings to ensure completion of the process by MAP FPs meeting in September 2013.**
- **The EcAp CG notes the need to hold a wrap-up meeting of COR-GEST on integration with a view to focus, harmonize, reduce and/or phase the targets developed separately by the three COR-GEST Clusters.**

Annex I
Good Environmental Status Descriptions for Ecological Objectives

Annex I – Good Environmental Status Descriptions for Ecological Objectives

Table 1. Good Environmental Status Description – Biodiversity (EO1)

Biological diversity is maintained or enhanced, when:

- Cetaceans continue to occur in all Mediterranean areas where formerly known.
- The population size of marine mammals allow to achieve and maintain a favorable conservation status¹, with Species populations in good condition: Low by-catch induced mortality², balanced sex ratio and no decline in calf production
- Mediterranean Monk Seal is present along all suitable habitats for the species in the Mediterranean, with number of individuals by colony allowing to achieve and maintain a favorable conservation status³, with species populations in good condition (Low human induced mortality, appropriate pupping seasonality, high annual pup production, balanced reproductive rate and sex ratio)
- The marine bird species⁴ continues to occur in all Mediterranean areas where formerly known with non-significant shrinkage or shift in the Mediterranean species distribution range
- The marine bird species populations have abundance levels allowing qualifying to Least Concern Category of IUCN.⁵
- Marine birds population density allows to achieve and maintain a favorable conservation status, and population in good conditions: Appropriate levels of breeding success & acceptable levels of survival of young and adult birds, incidental catch mortality is at negligible levels, particularly for species with IUCN threatened status.
- The turtle species continue to occur in all Mediterranean areas where formerly known, including nesting, mating, feeding and wintering sites. Their population size allows to achieve and maintain a favorable conservation status with low mortality induced by incidental catch⁶, favorable sex ratio and no decline in hatching rates, with stable or increasing distribution of nesting sites
- The coastal and marine habitats⁷ are present in all potential⁸ distributional range.⁹, and the distributional pattern is in line with prevailing physiographic, hydrographic, geographic and climatic conditions.
- The population size and density of the habitat-defining species are within reference conditions ensuring the long term maintenance of the Habitat.

¹ For cetaceans, the ACCOBAMS/IUCN evaluation should be considered

² Baseline data are required.

³ To be applied at local level and not at national scale

⁴ For marine birds, the evaluation is to be made for the indicator species (to be defined)

⁵ A taxon is Least Concern when it has been evaluated and does not qualify for “Critically Endangered”, “Endangered”, “Vulnerable” or “Near Threatened”

⁶ Baseline data are required.

⁷ The evaluation is to be made for the indicator habitats (to be defined)

⁸ For the purpose of this GES Description, the potential distribution range of the habitat is the historically known distribution of the habitat in the Mediterranean

⁹ This is not realistic for many habitats, given their slow natural expansion rate.

Table 2. Good Environmental Status Description – Non-indigenous species (EO2)

Non-indigenous¹⁰ species¹¹ introduced by human activities are at levels that do not adversely alter the ecosystem, when:

- The risk of introduction and spread of Non-indigenous Species (NIS) linked to human activities are minimized, in particular for potential Invasive Alien Species (IAS)
- Abundance of introduced NIS in risk areas¹² is decreasing
- There is no decrease in native species abundance, no decline of habitats and no change in community structure that have been generated by IAS via competition, predation or any other direct or indirect effect.
- Rate of NIS is stable or decreasing

Table 3. Good Environmental Status Description – Harvest of commercially exploited fish and shellfish (EO3)

Populations of selected commercially exploited fish and shellfish¹³ are within biologically safe limits, exhibiting a population age and size distribution that is indicative of a healthy stock, when:

- Total catch does not exceed the Maximum Sustainable Yield (MSY)¹⁴.

[Remark: If only landings by commercial fleet are considered, the total catch would not reflect all the fish biomass removed from the stock, since IUU and recreational fishing may generate significant taking in some stocks. However data on IUU and recreational fishing are missing for most areas and stocks.]

- Total effort does not exceed the level of effort allowing the Maximum Sustainable Yield (MSY), including the effort deployed by commercial fleet and estimated effort from recreational fishing and IUU operators.
- Catch per Unit Effort (CPUE)¹⁵ is stable or increasing
- The catch/biomass ratio allows to recover the stock or to maintain it at a level where it can produce the Maximum Sustainable Yield (MSY)

[Remark: This ratio can be calculated only if regular sampling programmes are carried out by the countries]

- Fishing mortality in the stock does not exceed the level that allows MSY ($F \leq F_{MSY}$)
- Size structure of the stocks allows to maintain or to reach the Maximum yield-per-recruit
- The spawning stock biomass (SSB) is at a level capable of providing MSY or higher

¹⁰ The term non-indigenous refers to an organism that may survive and subsequently reproduce, outside of its known or consensual range. Non-indigenous may be further characterized as un-established or vagrant, established, invasive and noxious or particularly invasive. Occhipinti-Ambrogi and Galil (2004). Marine Pollution Bulletin 49 (2004) 688–694. doi:10.1016/j.marpolbul.2004.08.011

¹¹ The list of priority (indicator) species introduced by human activities will be derived by consensus, based on information from the CIESM Atlas of Exotic Species in the Mediterranean and the DAISIE project (European Invasive Alien Species Gateway) a database tracking alien terrestrial and marine species in Europe

¹² For indicator taxonomic group

¹³ The choice of indicator species for collecting information for Ecological Objective 3 should be derived from fisheries targeting species listed in Annex III of Protocol concerning Specially Protected Areas and Biological Diversity in the Mediterranean (species whose exploitation is regulated) and the species in the GFCM Priority Species list (<http://www.gfcm.org/gfcm/topic/166221/en>). Choice of indicators should cover all trophic levels, and if possible, functional groups, using the species listed in Annex III of SPA and/or, as appropriate the stocks covered under regulation (EC) No 199/2008 of 25 February 2008 concerning the establishment of a Community framework for the collection, management and use of data in the fisheries sector and support for scientific advice regarding the Common Fisheries Policy

¹⁴ MSY: The largest annual catch that may be taken from a stock every year without affecting the catch of future years

¹⁵ Not to be applied for gregarious species such as small pelagic. For other species, if CPUE data are not available at Operational Unit level, CPUE at the stock level will be considered.

Table 4. Good Environmental Status Description – Marine food webs (EO4)

Alterations to components of marine food webs caused by resource extraction or human-induced environmental changes do not have long-term adverse effects on food web dynamics and related viability, when:

- Production per unit biomass allows for levels of energy flows in food webs that sustain the long -term abundance of the species and the retention of their full reproductive capacity
- The ratio of top predator is at level that will not have long-term adverse effects on food web dynamics and related viability
- The population size and density of the habitat-defining species are at levels ensuring the long term maintenance of the ecosystem
- Taxa with fast turnover rates significantly contribute in maintaining food web dynamics

Table 5. Good Environmental Status Description – Eutrophication (EO5)

Human-induced eutrophication is prevented, especially adverse effects thereof, such as losses in biodiversity, ecosystem degradation, harmful algal blooms and oxygen deficiency in bottom waters, when:

- Concentrations of nutrients in the eutrophic layer are in line with prevailing physiographic, geographic and climate conditions
- Natural ratios of nutrients are kept
- Natural levels of algal biomass in line with prevailing physiographic, geographic and climate conditions
- Clear water in line with prevailing physiographic, geographic and climate conditions
- There are no Harmful Algal Blooms (HABs)
- Bottom water fully oxygenated in line with prevailing physiographic, geographic and climate conditions

Table 6. Good Environmental Status Description – Sea-floor integrity (EO6)

Sea-floor integrity is maintained, especially in priority benthic habitats¹⁶, when:

- Bottom impacting activities have limited distribution
- The substrate affected by bottom impacting activities (for sensitive substrate types) have limited surface area
- Impact of bottom impacting activities on priority benthic habitats is minimized

The population size and density of the habitat-defining species are at levels ensuring the long term maintenance of the Habitat

¹⁶ e.g. coastal lagoons and marshes, intertidal areas, seagrass meadows, coralligenous communities, sea mounts, submarine canyons and slopes, deep-water coral and hydrothermal vents

Table 7. Good Environmental Status Description – Hydrography (EO7)

Alteration of hydrographic conditions does not adversely affect coastal and marine ecosystems, when:

- Resident ecosystems stay healthy enough to cope with the expected climate change and existing and future anthropogenic impacts
- With new structures in place, nearshore wave- and current patterns maintain as natural as possible.
- Negative impacts of marine and coastal structures are minimal with no influence on the larger scale coastal and marine system
- Natural variability of delta outline, water depth in delta and other ecosystems' functions are maintained and biodiversity not affected by changes in sediment budget
- Natural or near natural erosion, deposition and sediment movement patterns are maintained
- Water circulation in coastal and marine habitats, including salinity and temperature threshold, allows for natural/ecological processes sustain
- Water circulation in coastal and marine habitats, and changes in the levels of salinity and temperature are within thresholds, to maintain natural/ecological processes

Table 8. Good Environmental Status Description – Coastal ecosystems and landscapes (EO8)

The natural dynamics of coastal areas are maintained and coastal ecosystems and landscapes are preserved , when

- Coastal resilience maintained and improved; and coastal uses made adaptable to coastal erosion
- Long term sediment dynamics is within natural patterns
- Human activities (mechanical cleaning, sand mining, dune destruction, etc.) cause no physical disturbance in sandy coastal areas
- Physical disturbances on coastline caused by manmade structures do not impair coastline integrity
- Perpendicular and linear coastal development is in balance with integrity and diversity of coastal ecosystems and landscape
- Diversity of landscape types form a harmonious and balanced whole, where coastal landscape becomes strategic element of local identity
- Coastal habitats are not fragmented to a level that prevents them from providing ecological functions and environmental services

Table 9. Good Environmental Status Description – Pollution (EO9)

Contaminants cause no significant impact on coastal and marine ecosystems and human health, when:

- Concentrations of contaminants are below a determined threshold defined for the area and when they are not giving rise to pollution effects
- Concentrations of contaminants are not giving rise to pollution effects
- Pollution events are not occurring
- Concentrations of contaminants are within the regulatory limits for consumption by humans
- No regulatory levels of contaminants in seafood are exceeded
- Concentrations of intestinal enterococci are within established standards
- Harmful Algal Blooms (HABs) are not occurring

Table 10. Good Environmental Status Description – Marine Litter (EO10)

Marine and coastal litter do not adversely affect coastal and marine environment¹⁷, when:

- Number of marine litter on the coastline do not have negative impacts on human health, marine life and ecosystem services
- Number of marine litter items in the water surface and the seafloor do not have negative impacts on human health, marine life, ecosystem services and do not create risk to navigation

¹⁷ A policy document on marine litter strategy, taking fully into account the activities envisaged for the implementation of the EA roadmap, is being prepared by MEDPOL and will be submitted to the MAP Focal Point for approval. The approved document will be used as the basis for the formulation of an action plan for the reduction of marine litter.

Annex II
Draft List of Targets for Indicators of Operational Objectives

Annex II. – Draft List of Targets for Indicators of Operational Objectives

EO1 Biodiversity

NOTE:

The complexity of the biodiversity components makes very difficult their assessment at all levels and in all areas. The ECAP Coordination Group during its first meeting (Athens, May 2012) noting that in comparison with pollution there is not so much monitoring derived information on biodiversity, recommended that, for biodiversity, targets be addressed to specific endangered or threatened species and priority habitats for the functionality of the Mediterranean, with a combination of qualitative and quantitative targets. It was also recommended that the species listed in Annex II and III of the SPA/BD be used as the basis for the selection of a list of indicator species. For habitats, the Coordination Group recommended that targets be developed in relation to priority benthic habitats.

Considering the provisions of Decision 20/4 regarding the species and habitats to be considered for the Ecological Objective 1 (Biodiversity), as well as the relevant recommendations of the Coordination Group and taking into account concepts and methodologies developed for the determination of GES and targets within the framework of the EU MSFD, the approach presented hereinafter proposes that the biodiversity assessments for the determination of GES and targets be made for:

- Three species groups (Marine mammals, Birds and reptiles) selected from the Annex II to the SPA/BD Protocol. There is no species from Annex III to the SPA/BD Protocol, since these species are considered for the determination of GES and targets under Ecological Objective 3 (Harvest of commercially exploited fish and shellfish).
- A list of habitats that achieves representativeness across broad categories of habitat types.

Marine Mammals

Operational objective 1.1 Species distribution is maintained

Indicators	Proposed Target
1.1.1 Distributional range	<p>State <u>Cetaceans</u>: Cetacean distribution is not significantly affected by human activities <u>Monk Seal</u>: The distribution of Monk Seal remains stable or expanding and the species is recolonizing areas with suitable habitats.</p> <p>Pressure/Response: Human activities¹⁸ having the potential to exclude marine mammals from their range area are regulated and controlled.</p> <p>Conservation measures implemented for the zones of importance for cetaceans</p> <p>Fisheries management measures that strongly mitigate the risk of incidental taking of monk seals and cetaceans during fishing operations are implemented.</p>

¹⁸ Seismic surveys, marine noise generating activities, fishing, maritime traffic, etc.

Indicators	Proposed Target

1.2 Population size of selected species is maintained

Indicators	Proposed Target
1.2.1 Population abundance	State No human induced decrease in population abundance
1.2.2 Population density	State Continual recovery of population density

1.3 Population condition of selected species is maintained

Indicators	Proposed Target
1.3.1 Population demographic characteristics (e.g. body size or age class structure, sex ratio, fecundity rates, survival/ mortality rates)	<p>State (Quantitative targets may be set if baseline data on the extent of incidental catch and the population size will be available)</p> <p>Pressure/Response <u>Cetaceans:</u> Appropriate measure implemented to mitigate incidental catch, prey depletion and other human induced mortality</p> <p><u>Monk Seal:</u> Appropriate measures implemented to mitigate direct killing and incidental catches and to preclude habitat destruction.</p>

Birds

Operational Objective 1.1 Species distribution is maintained

Indicators	Proposed Target
1.1.1 Distributional range	<p>State</p> <p>No significant shrinkage in the population distribution in the Mediterranean in all [90% of the] indicator species,</p> <p>and for colonial-breeding seabirds (ie, most species in the Mediterranean): New colonies are established and the population is encouraged to spread among several alternative breeding sites¹⁹.</p>

¹⁹ This is recommended by the conservation plans of some taxa (Audouin's G, Lesser-crested T)

Operational Objective 1.2 Population size of selected species is maintained

Indicators	Proposed Target
1.2.1 Population abundance	<ul style="list-style-type: none"> • No [human induced] decrease in population abundance. • The total number of individuals is sparse enough in different spots to allow adequate resilience.
1.2.2 Population density	<p>State</p> <ul style="list-style-type: none"> • Continual recovery of population density in enough different spots to allow resilience • No decrease in population density in new/recolonized critical habitat (for recovered populations)

Operational Objective 1.3 Population condition of selected species is maintained

Indicators	Proposed Target
1.3.1 Population demographic characteristics (e.g. body size or age class structure, sex ratio, fecundity rates, survival/ mortality rates)	Population models point to long-term maintenance of populations of all taxa, particularly those with IUCN threatened status

Reptiles**Operational Objective 1.1 Species distribution is maintained**

Indicators	Proposed Target
1.1.1 Distributional range	<p>State</p> <p>Turtle distribution is not significantly affected by human activities</p> <p>Turtles continue to nest in all known nesting sites</p> <p>Pressure/Response</p> <p>Protection of nesting turtle nesting sites.</p> <p>Human activities²⁰ having the potential to exclude marine turtles from their range area are regulated and controlled.</p>

Operational Objective 1.2 Population size of selected species is maintained

Indicators	Proposed Target
1.2.1 Population abundance	<p>State</p> <p>No human induced decrease in population abundance</p>

²⁰ Uncontrolled use of turtle nesting sites, fishing, maritime traffic, etc.

Indicators	Proposed Target
1.2.2 Population density	

Operational Objective 1.3 Population condition of selected species is maintained

Indicators	Proposed Target
1.3.1 Population demographic characteristics (e.g. body size or age class structure, sex ratio, fecundity rates, survival/mortality rates)	<p>Pressure Measures to mitigate incidental catches in turtles implemented</p>

Habitats

Operational Objective 1.4 Key coastal and marine habitats are not being lost

Indicators	Proposed Target
1.4.1 Potential / observed distributional range of certain coastal and marine habitats listed under SPA protocol	<p>State The ratio Potential / observed distributional range tends to 1</p> <p>Pressure Decrease in the main human causes of the habitat decline</p>
1.4.2 Distributional pattern of certain coastal and marine habitats listed under SPA protocol	<p>State Zero net human induced loss of habitat</p> <p>Reptiles The species recovers historical nesting sites</p>
1.4.3 Condition of the habitat-defining species and communities	<p>State No human induced significant deviation of population abundance and density from reference conditions²¹</p> <p>The species shows a positive trends in population abundance and density (for recovering habitats)</p>

²¹ Reference conditions should be defined for the habitats to be considered under EO1

EO2 Non-indigenous species

Non-indigenous²² species²³ introduced by human activities are at levels that do not adversely alter the ecosystem

Operational Objective 2.1 Invasive non-indigenous species introductions are minimized

Indicators	Proposed Target
2.1.1. Spatial distribution, origin and population status (established vs. vagrant) of non-indigenous species	<p><u>State</u> IAS introduced as a result of human activities are reduced.</p> <p><u>Pressure/Response</u></p> <ul style="list-style-type: none"> – Improved management of the main human related pathways and vectors of NIS introduction (Mediterranean Strategy for the management of ballast waters, early warning systems, etc.) – Action plans developed to address high risk NIS, should they appear in the Mediterranean.
2.1.2 Trends in the abundance of introduced species, notably in risk areas	<p><u>State</u> Abundance of NIS introduced by human activities is reduced towards zero¹⁴</p>

Operational Objective 2.2. The impact of non-indigenous particularly invasive species on ecosystems is limited

Indicators	Proposed Target
2.2.1 Ecosystem impacts of particularly invasive species	<p><u>Pressure/Response</u> Impacts of NIS reduced to the feasible minimum</p>
2.2.2 Ratio between non-indigenous invasive species and native species in some well-studied taxonomic groups	<p><u>State</u> To be set upon species choice and their related impact degree of the invasive upon the indigenous ones, taking into account the role of Climate Change in accelerating the establishment of NIS populations.</p>

²² The term non-indigenous refers to an organism that may survive and subsequently reproduce, outside of its known or consensual range. Non-indigenous may be further characterized as un-established or vagrant, established, invasive and noxious or particularly invasive. Occhipinti-Ambrogi and Galil (2004). Marine Pollution Bulletin 49 (2004) 688–694. doi:10.1016/j.marpolbul.2004.08.011

²³ The list of priority (indicator) species introduced by human activities will be derived by consensus, based on information from the CIESM Atlas of Exotic Species in the Mediterranean and the DAISIE project (European Invasive Alien Species Gateway) a database tracking alien terrestrial and marine species in Europe

EO3 Harvest of commercially exploited fish and shellfish

Populations of selected commercially exploited fish and shellfish²⁴ are within biologically safe limits, exhibiting a population age and size distribution that is indicative of a healthy stock

Operational Objective 3.1 Level of exploitation by commercial fisheries is within biologically safe limits

Indicators	Proposed Target
3.1.1 Total catch by operational unit ²⁵	40% MSY as precautionary limit reference point.
3.1.2 Total effort by operational_unit	Fishing effort does not exceed the level of effort allowing 40% of the MSY
3.1.3 Catch per unit effort (CPUE) by operational unit	Stable or positive trend.
3.1.4 Ratio between catch and biomass index (hereinafter catch/biomass ratio).	
3.1.5 Fishing mortality	$F_{0.1}$

Operational Objective 3.2 The reproductive capacity of stocks is maintained

Indicators	Proposed Target
3.2.1 Age structure determination (where feasible)	Average size of fish caught > average size at maturity.
3.2.2 Spawning Stock Biomass (SSB)	

²⁴ The choice of indicator species for collecting information for Ecological Objective 3 should be derived from fisheries targeting species listed in Annex III of Protocol concerning Specially Protected Areas and Biological Diversity in the Mediterranean (species whose exploitation is regulated) and the species in the GFCM Priority Species list (<http://www.gfcm.org/gfcm/topic/166221/en>). Choice of indicators should cover all trophic levels, and if possible, functional groups, using the species listed in Annex III of SPA and/or, as appropriate the stocks covered under regulation (EC) No 199/2008 of 25 February 2008 concerning the establishment of a Community framework for the collection, management and use of data in the fisheries sector and support for scientific advice regarding the Common Fisheries Policy

²⁵ Operational unit is "the group of fishing vessels which are engaged in the same type of fishing operation within the same Geographical Sub-Area, targeting the same species or group of species and belonging to the same economic segment"

EO4 Marine food webs

Alterations to components of marine food webs caused by resource extraction or human-induced environmental changes do not have long-term adverse effects on food web dynamics and related viability

Operational Objective 4.1 Ecosystem dynamics across all trophic levels are maintained at levels capable of ensuring long -term abundance of the species and the retention of their full reproductive capacity

Indicators	Proposed Target
4.1.1 Production per unit biomass estimates for selected trophic groups and key species, for use in models predicting energy flows in food webs	Quantitative targets may be established if baseline information will be available. (Remark: modelling energy flows in food web requires a significant amount of data) ²⁶

Operational Objective 4.2 Normal proportion and abundances of selected species at all trophic levels of the food web are maintained

Indicators	Proposed Target
4.2.1 Proportion of top predators by weight in the food webs	Threshold may be established if baseline information will be available.
4.2.2 Trends in proportion or abundance of habitat-defining groups	No [human induced] decrease in population abundance and density The species shows a positive trends in population abundance and density (for recovering ecosystems)
4.2.3 Trends in proportion or abundance of taxa with fast turnover rates	The partitioning of biomass among trophic levels is adapted to the trophic structure of the ecosystem

²⁶ The use of MTI (Marine Trophic Index) is recommended for the areas with accurate data about fishery catches.

EO5 Eutrophication

Human-induced eutrophication is prevented, especially adverse effects thereof, such as losses in biodiversity, ecosystem degradation, harmful algal blooms and oxygen deficiency in bottom waters.

Operational Objective 5.1 Human introduction of nutrients in the marine environment is not conducive to eutrophication

Indicators	Proposed Target
5.1.1 Concentration of key nutrients in the water column	<p>State</p> <ol style="list-style-type: none"> 1. Reference nutrients concentrations according to the local hydrological, chemical and morphological characteristics of the un-impacted marine region ²⁷ 2. Decreasing trend of nutrients concentrations in water column of human impacted areas, statistically defined <p>Pressure</p> <ol style="list-style-type: none"> 1. Reduction of BOD emissions from land based sources 2. Reduction of nutrients emissions from land based sources

Operational Objective 5.2 Direct effects of nutrient over-enrichment are prevented

Indicators	Proposed Target
5.2.1 Chlorophyll-a concentration in the water column	<p>State</p> <ol style="list-style-type: none"> 1. Chl-a concentrations in high-risk areas below thresholds²⁸ 2. Decreasing trend in chl-a concentrations in high risk areas affected by human activities
5.2.2 Water transparency where relevant	<p>State</p> <ol style="list-style-type: none"> 1. Secchi disk depth above threshold in risk areas 2. Increasing trend of transparency in areas impacted by human activities
5.2.3 Number and location of major events of nuisance/toxic algal blooms caused by human activities ²⁹	<p>State</p> <p>Decreasing trend in the frequency of the occurrence of HABs</p>

²⁷ Thresholds to be set in the future, subject to decision of Contracting Parties

²⁸ Thresholds to be set in the future, subject to decision of Contracting Parties

²⁹The connection between eutrophication and toxic algal blooms is subject of devoted research at the moment. The connection between the two is not clearly established as not all the ecosystems react in the same way. In fact recent surveys in UK/Ireland in the framework of OSPAR have allowed concluding on the lack of relation between the them and

Operational Objective 5.3 Indirect effects of nutrient over- enrichment are prevented

Indicators	Proposed Target
5.3.1 Dissolved oxygen near the bottom, i.e. changes due to increased organic matter decomposition, and size of the area concerned ^{*30}	<p>State</p> <ol style="list-style-type: none"> 1. Dissolved oxygen concentrations in high-risk areas above local threshold³¹ 2. Increasing trend in dissolved oxygen concentrations in areas impacted by human activities

therefore the number and location of major events of nuisance/toxic algal blooms should always be regarded cautiously as an indicator of a direct effect of nutrient over-enrichment.

³⁰Monitoring to be carried out where appropriate

³¹Thresholds to be set in the future, subject to decision of Contracting Parties

EO6 Sea-floor integrity

Sea-floor integrity is maintained, especially in priority benthic habitats³²

Operational Objective 6.1 Extent of physical alteration to the substrate is minimized

Indicators	Proposed Target
6.1.1 Distribution of bottom impacting activities ³³	All bottom impacting activities are regulated. Maritime Spatial Planning is used to control bottom impacting activities
6.1.2 Area of the substrate affected by physical alteration due to the different activities ¹²	Threshold may be established if baseline information will be available.

Operational Objective 6.2 Impact of benthic disturbance in priority benthic habitats is minimized

Indicators	Proposed Target
6.2.1 Impact of bottom impacting activities ¹² in priority benthic habitats	No priority benthic habitat impacted by bottom impacting activities
6.2.2 Change in distribution and abundance of indicator species in priority habitats ³⁴	State No [human induced] decrease in population abundance and density The species shows a positive trends in population abundance and density (for recovering habitats)

³² e.g. coastal lagoons and marshes, intertidal areas, seagrass meadows, coralligenous communities, sea mounts, submarine canyons and slopes, deep-water coral and hydrothermal vents

³³ e.g bottom fishing, dredging activities ,sediment disposal, seabed mining, drilling, marine installations, dumping and anchoring, land reclamation, sand and gravel extraction

³⁴Indicator species to be used to assess the ecosystem effects of physical damage to the benthos could refer to disturbance-sensitive and/or disturbance-tolerant species, as appropriate to the circumstances, in line with methodologies developed to assess the magnitude and duration of ecological effects of benthic disturbance.

E07 Hydrography

Alteration of hydrographic conditions does not adversely affect coastal and marine ecosystems.

Operational Objective 7.1 Impacts to the marine and coastal ecosystem induced by climate variability and/or climate change are minimized

Indicators	Proposed Target
7.1.1 Large scale changes in circulation patterns, temperature, pH, and salinity distribution	Anthropogenic additional impacts which may alter ecosystems' adaptive capacity are minimized to non-impact level.
7.1.2 Long term changes in sea level	

Operational Objective 7.2 Alterations due to permanent constructions on the coast and watersheds, marine installations and seafloor anchored structures are minimized

Indicators	Proposed Target
7.2.1. Impact on the circulation caused by the presence of structures	Marine and shore based structures planned, constructed and operated in a way to maintain the natural wave and current pattern at non-impact level
7.2.2 Location and extent of the habitats impacted directly by the alterations and/or the circulation changes induced by them: footprints of impacting structures	Planning of structures takes into account all possible mitigation measures in order to minimize the impact on coastal and marine ecosystem and its services integrity and cultural/historic assets
7.2.3 Trends in sediment delivery, especially in major deltaic systems	The sediment coming from the watershed and longshore drift is sufficient to maintain less or not impacted coastal ecosystems (including major deltaic systems) Sufficient sediment budget is provided to restore damaged coastal ecosystems, where applicable
7.2.4 Extent of area affected by coastal erosion due to sediment supply alterations	The coastal and marine structures that will alter the sediment transport and accelerate erosion/accretion are planned, constructed and operated with minimum negative impact

Operational Objective 7.3 Impacts of alterations due to changes in freshwater flow from watersheds, seawater inundation and coastal freatic intrusion, brine input from desalination plants and seawater intake and outlet are minimized

Indicators	Proposed Target
7.3.1. Trends in fresh water/sea water volume delivered to salt marshes, lagoons, estuaries, and deltas; desalination brines in the coastal zone	Provide adequate freshwater inflow to salt marshes, lagoons, estuaries and deltas to ensure water circulation balance
7.3.2. Location and extent of the habitats impacted by changes in the circulation and the salinity induced by the alterations	Cumulative negative impacts on coastal and marine habitats are avoided while planning, construction and operating of coastal and marine infrastructure and do not hinder habitat integrity
7.3.3 Changes in key species distribution due to the effects of seawater intake and outlet	Site specific tolerable limits of key species in immediate proximity of seawater intake and outlet structures are considered while planning, construction and operation of such infrastructure

EO8 - Coastal ecosystems and landscapes

The natural dynamics of coastal areas are maintained and coastal ecosystems and landscapes are preserved

Operational Objective 8.1 The natural dynamic nature of coastlines is respected and coastal areas are in good condition

Indicators	Proposed Target
8.1.1. Areal extent of coastal erosion and coastline instability	Impacts of coastal erosion caused by man made factors anticipated and prevented through Coastal erosion management allowing for natural fluctuation of the coast and minimizing coastal erosion risk
8.1.2 Changes in sediment dynamics along the coastline	Disturbance in sediment inflows reduced through improved Integrated River Basin Management and coastal sand management practices
8.1.3 Areal extent of sandy areas subject to physical disturbance ³⁵	Appropriate management measures are implemented (artificial beach nourishment, dune management etc.) to minimize negative impacts of human activities on sandy coastal areas
8.1.4 Length of coastline subject to physical disturbance due to the influence of manmade structures	Appropriate management measures to avoid cumulative negative impacts are implemented to minimize negative impacts of coastal infrastructure on coastline

Operational Objective 8.2 Integrity and diversity of coastal ecosystems, landscapes and their geomorphology are preserved

Indicators	Proposed Target
8.2.1 Change of land-use ³⁶	Cumulative negative impacts of coastal development are not increasing by means of coastal spatial planning with the aim of creating a balanced coastal land use structure
8.2.2 Change of landscape types	Mixed landscape structure maintained, which avoids dominance of mono- type coastal landscapes and where network of protected coastal landscapes is expanded
8.2.3 Share of non-fragmented coastal habitats	Share of non-fragmented coastal habitats is maintained at the present level or increasing

³⁵ Physical disturbance includes beach cleaning by mechanical means, sand mining, beach sand nourishment

³⁶ Land-use classes according to the classification by Eurostat-OCDE, 1998:

<http://unstats.un.org/unsd/environment/q2004land.pdf>

EO9 Pollution

Contaminants cause no significant impact on coastal and marine ecosystems and human health

Operational Objective 9.1 Concentration of priority³⁷ contaminants is kept within acceptable limits and does not increase

Indicators	Proposed Target
9.1.1 Concentration of key harmful contaminants in biota, sediment or water	<p>State Concentrations of specific contaminants below EACs or below reference concentrations³⁸</p> <p>Decreasing trend in contaminants concentrations in sediment and biota from human impacted areas, statistically defined</p> <p>Pressure Reduction of contaminants emissions from land based sources</p>

Operational Objective 9.2 Effects of released contaminants are minimized

Indicators	Proposed Target
9.2.1 Level of pollution effects of key contaminants where a cause and effect relationship has been established	<p>State Contaminants effects below threshold³⁹</p>

Operational Objective 9.3 Acute pollution events are prevented and their impacts are minimized

Indicators	Proposed Target
9.3.1 Occurrence, origin (where possible), extent of significant acute pollution events (e.g. slicks from oil, oil products and hazardous substances) and their impact on biota affected by this pollution	<p>State 1. Decreasing trends in the concentrations of oil in the water column and the occurrence of tar balls on the beach</p> <p>Pressure 1. Decreasing trend in the occurrences of pollution events 2. Decreasing trend in the operational releases of oil and other contaminants from coastal, maritime and off-shore activities</p>

³⁷ Priority contaminants as listed under the Barcelona Convention and LBS Protocol

³⁸ Thresholds to be set in the future, subject to decision of Contracting Parties

³⁹ Thresholds to be set in the future, subject to decision of Contracting Parties

Operational Objective 9.4 Levels of known harmful contaminants in major types of seafood do not exceed established standards

Indicators	Proposed Target
9.4.1 Actual levels of contaminants that have been detected and number of contaminants which have exceeded maximum regulatory levels in commonly consumed seafood ⁴⁰	State Concentrations of contaminants are within the regulatory limits set by legislation
9.4.2 Frequency that regulatory levels of contaminants are exceeded	State Decreasing trend in the frequency of cases of seafood samples above regulatory limits for contaminants

Operational Objective 9.5 Water quality in bathing waters and other recreational areas does not undermine human health

Indicators	Proposed Target
9.5.1 Percentage of intestinal enterococci concentration measurements within established standards	Increasing trend in the percentage of intestinal enterococci concentrations within established standards
9.5.2 Occurrence of Harmful Algal Blooms within bathing and recreational areas	State Decreasing trend in the frequency of the occurrence of HABs

⁴⁰ Traceability of the origin of seafood sampled should be ensured

EO10 Marine litter**Marine and coastal litter do not adversely affect coastal and marine environment⁴¹****Operational Objective 10.1 The impacts related to properties and quantities of marine litter in the marine and coastal environment are minimized**

Indicators	Proposed Target
10.1.1 Trends in the amount of litter washed ashore and/or deposited on coastlines, including analysis of its composition, spatial distribution and, where possible, source	State Decreasing trend in the number of marine litter items deposited on the coast
10.1.2 Trends in amounts of litter in the water column, including microplastics, and on the seafloor	State Decreasing trend in the number of marine litter items in the water surface and the seafloor

Operational Objective 10.2 Impacts of litter on marine life are controlled to the maximum extent practicable

Indicators	Proposed Target
10.2.1 Trends in the amount of litter ingested by or entangling marine organisms, especially mammals, marine birds and turtles ⁴²	Decreasing trend in the cases of entanglement or/and a decreasing trend in the stomach content of the sentinel species.

⁴¹ A policy document on marine litter strategy, taking fully into account the activities envisaged for the implementation of the EA roadmap, is being prepared by MEDPOL and will be submitted to the MAP Focal Point for approval. The approved document will be used as the basis for the formulation of an action plan for the reduction of marine litter.

⁴² Marine mammals, marine birds and turtles included in the regional action plans of the SPA/BD Protocol.

EO11 Energy including underwater noise

Noise from human activities cause no significant impact on marine and coastal ecosystems

Operational Objectives 11.1 Energy inputs into the marine environment, especially noise from human activities is minimized

Indicators	Proposed Target
11.1.1 Proportion of days and geographical distribution where loud, low and mid-frequency impulsive sounds exceed levels that are likely to entail significant impact on marine animals	*
11.1.2 Trends in continuous low frequency sounds with the use of models as appropriate	*

(*)The Secretariat will cooperate with ACCOBAMS and provide detailed information for the discussions in the second meeting of COR-GEST Biodiversity and Fisheries Cluster as proposed to EcAP CG . Also, the work of the Noise WG of EU in the context of MSFD will be followed and taken into account as appropriate.