

# IMPLEMENTATION OF THE ECOSYSTEM APPROACH IN THE MEDITERRANEAN

For A Healthy Mediterranean With Marine And Biological  
Ecosystems That Are Productive And Biologically Diverse  
For The Benefit Of Present And Future Generations



UNEP



The UNEP/MAP<sup>1</sup> Barcelona Convention for the Protection of the Marine Environment and the Coastal Region of the Mediterranean (UNEP/MAP Barcelona Convention<sup>2</sup>) and its seven Protocols provide the political and legal framework for the protection of the marine environment and the coastal areas of the Mediterranean region.

The Ecosystem Approach (EcAp) is a strategy for the integrated management of land, water and living resources that promoted conservation and sustainable use in an equitable way. As such, it is the guiding principle to all policy implementation and development undertaken under the auspices of UNEP/MAP Barcelona Convention.

EcAp also refers to a specific process under the UNEP/MAP Barcelona Convention, as its Contracting Parties have committed to implement the ecosystem approach in the Mediterranean with the ultimate objective of achieving the good environmental status (GES) of the Mediterranean Sea and Coast. This process aims to achieve GES through informed management decisions, based on integrated quantitative assessment and monitoring of the Marine and Coastal Environment of the Mediterranean.

Mainstreaming EcAp into the work of UNEP/MAP Barcelona Convention and achieving the GES of the Mediterranean Sea and Coast through the EcAp process have been supported by the EU-funded project entitled "Implementation of the Ecosystem Approach in the Mediterranean by the Contracting Parties in the Context of the Barcelona Convention for the Protection of the Marine Environment and the Coastal region of the Mediterranean and its Protocols" (EcAp-MED project 2012-2015).

Project activities and outputs were delivered by a team composed of all UNEP/MAP components under overall guidance of the Coordinating Unit, but they could not have been achieved without the overall ownership (and leadership) of the Contracting Parties to the Barcelona Convention.

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## 11 ECOLOGICAL OBJECTIVES

1. Biodiversity is maintained or enhanced.
2. Non-indigenous species do not adversely alter the ecosystem.
3. Populations of commercially exploited fish and shellfish are within biologically safe limits.
4. Alterations to components of marine food webs do not have long-term adverse effects.
5. Human-induced eutrophication is prevented.
6. Sea-floor integrity is maintained.
7. Alteration of hydrographic conditions does not adversely affect coastal and marine ecosystems.
8. The natural dynamics of coastal areas are maintained and coastal ecosystems and landscapes are preserved.
9. Contaminants cause no significant impact on coastal and marine ecosystems and human health.
10. Marine and coastal litter does not adversely affect coastal and marine ecosystems.
11. Noise from human activities cause no significant on marine and coastal ecosystems.

<sup>1</sup> The Mediterranean Action Plan (MAP) was approved in 1975 as the institutional framework for cooperation in addressing common challenges of environmental degradation by the Mediterranean riparian countries and the European Commission. The United Nations Environment Programme (UNEP) provides Secretariat Services to the Contracting Parties through its MAP Coordinating Unit, established in Athens in 1982, on the basis of a Host Country Agreement between Greece and UNEP.

<sup>2</sup> The Convention for the Protection of the Mediterranean Sea Against Pollution (Barcelona Convention) was adopted in 1976, together with two Protocols addressing prevention of pollution by dumping from ships and aircraft, and cooperation in combating pollution in cases of Emergency. Today the Barcelona Convention has seven (7) Protocols, covering areas such as biodiversity protection and integrated coastal zone management, next to pollution.

## A HISTORICAL OVERVIEW: DECISIONS OF THE CONTRACTING PARTIES TO THE BARCELONA CONVENTION ON THE ECOSYSTEM APPROACH

Through Decision IG.17/6 the Contracting Parties to the Barcelona Convention have committed to progressively apply EcAp to the management of human activities with the goal of effecting real change in the Mediterranean marine and coastal environment. Decision IG.17/6 outlines a roadmap for the implementation of EcAp, consisting of several subsequent steps, such as the development of ecological objectives, operational objectives and respective indicators, the development of GES descriptors and targets, monitoring programmes, and finally the necessary management measures and programmes to achieve GES.

Decision IG.20/4 on “Implementing the Ecosystem Approach Roadmap”, following up on Decision IG.17/6, validated the work done so far regarding the 11 ecological objectives, operational objectives and indicators for the Mediterranean. It also mandated the Secretariat to prepare an EcAp Monitoring Programme, to determine GES and targets and to prepare an in-depth socio-economic analysis of human activities that impact on, or benefit from, the quality and ecological health of coastal and marine ecosystems. Finally, it asked to integrate EcAp in the overall work of UNEP/MAP Barcelona Convention and mandated the Secretariat to establish an EcAp governance framework.

As most relevant milestone of the 18<sup>th</sup> Ordinary Meeting of the Contracting Parties (COP 18, 2013), Decision IG.21/3 on the “Ecosystem Approach including adapting definitions of Good Environmental Status (GES) and targets” (the EcAp Decision) expresses the agreement on regionally common targets, lists of indicators to achieve GES in the Mediterranean, and an integrated list of Mediterranean GES, targets and indicators. A specific timeline was adopted in this EcAp Decision on how to develop and implement an Integrated Mediterranean Monitoring and Assessment Programme by the 19<sup>th</sup> Meeting of the Contracting Parties, following the 6 year EcAp cycles structure (with second EcAp cycle in the Mediterranean of 2016-2021). It was also agreed, that after the initial phase of implementation of the Integrated Monitoring and Assessment Programme (2016-2019), the draft Integrated Mediterranean Monitoring and Assessment Programme will be reviewed and in case necessary amended, in light of lessons learnt during the first years of its implementation.

The same decision also welcomed the work done on the socio-economic assessment, endorsed the EcAp governance framework with the key governing role of the EcAp Coordination Group, and reiterated the importance of EcAp as the guiding principle for the work of UNEP/MAP Barcelona Convention.

The EU-funded EcAp-MED project 2012-2015 with its 1,716,000 EUR budget was instrumental in the development and the implementation of all the decisions described above. Based on Decision IG.21/17 of COP 18, the Mediterranean Trust

### THE KEY STEPS TOWARDS THE MEDITERRANEAN QUALITY STATUS REPORT (2023):

**1. Biennium 2014-2015: Essential Technical Groundwork**, such as the development of Monitoring and Assessment Guidelines (methodological, technical issues, scope, feasibility, quality control, cost-effectiveness, common indicators) with the full involvement of national experts and the scientific community and all UNEP-MAP components;

**2. Biennium 2016-2017: Start of new EcAp Cycle and Implementation**

The integrated monitoring and assessment programme is to run on a 2 year initial basis in order to assess the effectiveness of the programmes, perform further gap analysis and establish needs for adaptation.

**3. Biennium 2018-2019: Continue Implementation and Address Gaps**

COP 21 will assess the achievements of the initial monitoring and agree on adaptation needs and on the next phase of the Integrated Monitoring and Assessment Programme.

**4. Biennium 2020-2021: Evaluate the State of Achievement of GES in the Mediterranean Region**

COP 22 will assess the overall status and provide guidance for the preparation of the Quality Status Report by 2023.

Fund also supports the implementation of the EcAp process since 2014, with almost forth of its activities budget devoted to EcAp during the period of 2014-2015 (444 000 EUR).

## KEY ACHIEVEMENTS OF THE ECAP-MED PROJECT 2012-2015

### 1. PROGRESS TOWARDS A UNEP/MAP BARCELONA CONVENTION INTEGRATED MONITORING PROGRAMME AND ASSESSMENT PROGRAMME

Following the EcAp Roadmap, Contracting Parties have committed to achieve GES of the Mediterranean Sea and Coast, which requires ways to measure the status of the Mediterranean waters in a qualitative manner.

The agreed timeline of the EcAp Decision aims at the achievement of an Integrated Monitoring and Assessment Programme by COP 19 and at the development of a Quality Status Report (QSR), covering all agreed Ecological Objectives by 2023.

The QSR will be developed in close consultation with the Contracting Parties and the scientific community, using the existing governance structure. It will provide, for the first time in the Mediterranean, an assessment of the status of the marine and coastal environment, following regionally common indicators and targets in an integrated manner, covering areas such as pollution and marine litter, biodiversity and non-indigenous species, and coast and hydrography.

During the biennium 2014-2015, work has focused at expert level on the development of the main elements of a draft Integrated Monitoring and Assessment Programme, with specific meetings of the Integrated Correspondence Group on GES and Targets, Biodiversity and NIS, Pollution and Litter, Coast and Hydrography, and Monitoring.

### 2. UNDERTAKING OF A SOCIO-ECONOMIC ANALYSIS

With the support of the EcAp-MED project 2012-2015, in order to complement the EcAp initial assessment, a socio-economic analysis of the human activities was undertaken in the course of 2013-2014. The socio-economic analysis covers fisheries, aquaculture, maritime transport, recreational activities, oil industry and offshore, with a focus both on regional and sub-regional scales. The analysis paid attention also to 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.

In addition, to foster a common understanding at national level, national socio-economic pilot cases were also undertaken in the framework of Regoko, a GEF / World bank funded programme (in Lebanon, Tunisia, Morocco and Egypt), which resulted in national guidelines on economic and social analysis (so-called ESA National Guidelines).

### 3. UNDERTAKING AN ECAP PILOT ACTIVITY ON THE COASTAL LAND-USE CHANGE COMMON INDICATOR

Taking into account the EcAp Decision and the recommendations of the Correspondence Group on Monitoring Coast and Hydrography, which put the land use change indicator on the list of candidate common

In the context of the Barcelona Convention a common indicator is an indicator that summarizes data into a simple, standardized and communicable figure, is ideally applicable in the whole Mediterranean basin, at least at the level of sub-regions, and is monitored by all Contracting Parties. A common indicator is able to give an indication of the degree of threat or change in the marine ecosystem and can deliver valuable information to decision makers.

1. On the side: list of Common Indicators Habitat distributional range (EO1);
2. Condition of the habitat's typical species and communities (EO1);
3. Species distributional range (EO1 related to marine mammals, seabirds, marine reptiles);
4. Population abundance of selected species (EO1, related to marine mammals, seabirds, marine reptiles);
5. Population demographic characteristics (EO1, e.g. body size or age class structure, sex ratio, fecundity rates, survival/mortality rates related to marine mammals, seabirds, marine reptiles);
6. Trends in abundance, temporal occurrence and spatial distribution of non-indigenous species, particularly invasive, non-indigenous species, notably in risk areas (EO2, in relation to the main vectors and pathways of spreading of such species);
7. Concentration of key nutrients in water column (EO5);





indicators, it was agreed to test this indicator at a sub-regional Mediterranean level, before including it in the initial phase of the Integrated Monitoring and Assessment Programme from 2016 on.

All the Adriatic countries indicated their interest to participate in such a pilot “EcAp indicator testing”. The project is on-going.

8. Chlorophyll-a concentration in water column (EO5);
9. Location and extent of the habitats impacted directly by hydrographic alterations (EO7);
10. Length of coastline subject to physical disturbance due to the influence of man-made structures (EO8);
11. Concentration of key harmful contaminants measured in the relevant matrix (EO9, related to biota, sediment, seawater);
12. Level of pollution effects of key contaminants where a cause and effect relationship has been established (EO9);
13. 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);
14. Actual levels of contaminants that have been detected and number of contaminants which have exceeded maximum regulatory levels in commonly consumed seafood (EO9);
15. Percentage of intestinal enterococci concentration measurements within established standards (EO9);
16. Trends in the amount of litter washed ashore and/or deposited on coastlines (EO10);
17. Trends in the amount of litter in the water column including microplastics and on the seafloor (EO10);
18. Candidate Indicator: Trends in the amount of litter ingested by or entangling marine organisms focusing on selected mammals, marine birds and marine turtles (EO10);
19. Candidate Indicator: Coastal ecosystems and landscapes



#### 4. SUPPORT TO THE ESTABLISHMENT OF SPAMIS IN THE OPEN SEAS

The EcAp-MED project 2012-2015 has supported the establishment of a joint network of Specially Protected Areas of Mediterranean Importance (SPAMIs) embracing the open seas and including the deep seas. Progress has been made by continuing sub-regional consultation processes to establish SPAMIs in the three priority areas of the Alboran Sea, the Adriatic Sea and the Sicily Channel/Tunisian Plateau.

Consultation meetings have taken place among the neighbouring countries and specific draft Roadmaps have been agreed for all priority sites, indicating the way forward in the process to identify, establish and declare SPAMIs in the open seas.

Furthermore, for each priority area, thematic reports, containing compiled and new scientific data, have been elaborated (specifically thematic reports on Cetaceans, Seabirds and Fisheries, with emphasis in elasmobranchs) and ecosystem information has been prepared.

#### 5. SUPPORT TO THE DEVELOPMENT OF AN OFFSHORE ACTION PLAN

The Protocol for the Protection of the Mediterranean Sea against Pollution Resulting from Exploration and Exploitation of the Continental Shelf and Seabed and its Subsoil (Offshore Protocol) was adopted in 1994 and entered into force in 2011 at a time of increasing deep-sea drilling in the Mediterranean.

COP 17 recognized the need to take swift action to transform the Protocol into an effective protection tool. It adopted Decision IG. 20/12 requesting the Coordinating Unit and REMPEC to take measures to implement the Protocol through an Action Plan that is supported by the EcAp-MED project 2012-2015. Through the following activities:

- A benchmarking exercise of current and planned offshore activities in the Mediterranean Area has been carried out through the dissemination of a questionnaire to all Contracting Parties to the Barcelona Convention. Replies received from 10 Countries out of 21 were analysed and compiled in a document submitted to all Contracting Parties;
- Reviewing international best practices and compiling them in a document disseminated to all Contracting Parties. The document provides a set of recommendations, which were reviewed by all Contracting Parties to identify priorities to be considered within the Action Plan;
- Three Offshore Protocol Working Group Meetings were held in 2013 and 2014;
- The draft Action Plan was developed, presented and adopted by the Offshore Protocol Working Group Meeting in June 2014.



@ Daria Povh - PAP/RAC

## 6. SUPPORT TO THE IMPLEMENTATION OF THE MARINE LITTER REGIONAL PLAN

The EcAp-MED project 2012-2015 has contributed to the successful implementation of the Regional Plan on Marine Litter (Decision IG.21/7) with the following activities:

- a) undertaking, in line with Article 11 of the Regional Plan, an assessment of marine litter based on previous assessment and additional existing information, including on lost fishing gears; complement the preparation of the Integrated Monitoring and Assessment Programme with specific elements on marine litter, by ensuring contribution from the respective national experts;
- b) developing guidelines for marine litter monitoring programme implementation to ensure a coordinated and comparable outcome in the region;
- c) enhancing public and decision makers awareness and commitments on marine litter issue in synergy with Marlisco Project, targeting non-EU countries.



## **ECAP-MED PROJECT 2012-2015**

### **THE PROJECT FOSTERING THE ECOSYSTEM APPROACH IN THE MEDITERRANEAN**

The EcAp-MED project 2012-2015 has been supporting UNEP/MAP to implement the EcAp process in the Mediterranean in synergy and coherence with the EU's MSFD principles. The EcAp-MED project 2012-2015 assessed the state of play in the Mediterranean, facilitated cooperation between the different actors, assisted the establishment of an Integrated Monitoring and Assessment Programme, the undertaking of a socio-economic assessment, the testing of an EcAp common candidate indicator on coastal land-use change. In addition, it has been supporting the Marine Litter Regional Plan implementation, the development of the Offshore Action Plan and the building a framework to facilitate the joint establishment of SPAMIs in open seas. The total budget of the project has been € 1.716.000.

For more information please visit  
[www.unepmap.org](http://www.unepmap.org)

