



MedMPAnet project

REFLECTIONS ON ACHIEVEMENTS AND FUTURE DIRECTIONS FOR MARINE PROTECTED AREAS IN THE MEDITERRANEAN



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FONDS FRANÇAIS POUR
L'ENVIRONNEMENT MONDIAL

REFLECTIONS ON ACHIEVEMENTS AND FUTURE DIRECTIONS FOR MARINE PROTECTED AREAS IN THE MEDITERRANEAN

MedMPAnet project

Regional Project for the Development of a
Mediterranean Marine and Coastal Protected
Areas (MPAs) Network through the boosting
of MPA creation and management

Study required and financed by:

MedMPAnet^{project}

Regional Activity Centre for Specially Protected Areas (RAC/SPA)
Boulevard du Leader Yasser Arafat
B.P. 337
1080 Tunis Cedex - Tunisia

In charge of the study:

Souha EL ASMI, MedMPAnet Project, RAC/SPA
Atef LIMAM, MedMPAnet Project, RAC/SPA

Scientific responsible of the study:

Imen MELIANE, International marine conservation consultant, Director of 7 Seas (Tunisia)

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LIST OF ABBREVIATIONS AND ACRONYMS

- AECID: Spanish Agency for International Development Cooperation
- AFD: French Agency for Development (*Agence Française de Développement*)
- APAL: Agency for Coastal Protection and Planning (*Agence de Protection et d'Aménagement du Littoral*)
- CBD: Convention on Biological Diversity
- Cdl: Conservatoire du Littoral
- COP: Conference of Parties
- CTF: Conservation Trust Fund
- EBSA: Ecologically or Biologically Significant marine Areas
- EC: European Commission
- EEZ: Exclusive Economic Zone
- FFEM: French Global Environment Facility (*Fonds Français pour l'Environnement Mondial*)
- GEF: Global Environment Facility
- GIS: Geographical Information System
- KfW: Reconstruction Credit Institute (*Kreditanstalt für Wiederaufbau*)
- IMPAC3: 3rd International Marine Protected Areas Congress
- IUCN: International Union for Conservation of Nature
- IUCN-Med: IUCN's Centre for Mediterranean Cooperation
- MAP: Mediterranean Action Plan
- MedMPAnet: Regional Project for the Development of a Mediterranean Marine and Coastal Protected Areas (MPAs) Network through the boosting of MPAs Creation and Management
- MedPAN: Network of Marine Protected Area Managers in the Mediterranean
- MedPartnership: Strategic Partnership for the Mediterranean Sea Large Marine Ecosystem
- MPA: Marine Protected Area
- NGO: non-governmental organization
- NM: Nautical Mile
- NOAA: National Oceanic and Atmospheric Administration
- PA: Protected Area
- PDAPM: Master Plan of Protected Areas of Morocco (*Plan Directeur des Aires Protégées du Maroc*)
- PES: Payment for Ecosystem Services
- RAC/SPA: Regional Activity Centre for Specially Protected Areas
- SIBE: Site of Ecological and Biological Interest (*Site d'Intérêt Biologique et Ecologique*)
- SAP BIO: Strategic Action Programme for the Conservation of Biological Diversity in the Mediterranean Region
- SPA: Specially Protected Area
- SPA/BD Protocol: Protocol concerning Specially Protected Areas and Biological Diversity in the Mediterranean
- SPAMI: Specially Protected Area of Mediterranean Importance
- UfM: Union for the Mediterranean
- UNEP: United Nations Environment Programme
- WWF MedPO: World Wide Fund for Nature – Mediterranean Programme

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INTRODUCTION

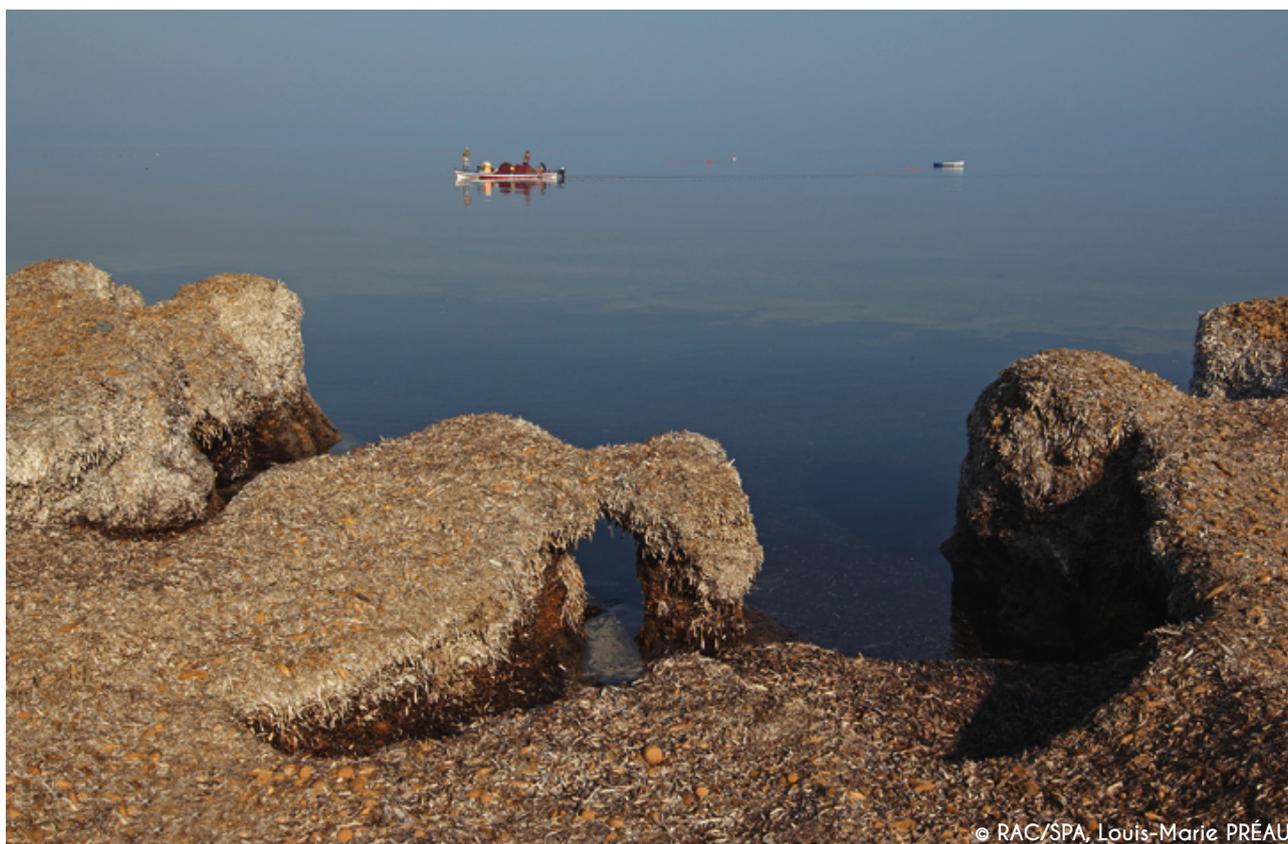
- Underwater Visual Census (UVC)
- Quantification of fish assemblage structure
- Alternative to destructive methods
- No destructive effects on habitat
- If we compare with:
 - Different census methods
 - Different recording devices
 - Different sampling methods



1. INTRODUCTION

Advancing marine conservation, particularly through Marine Protected Areas (MPAs) has been an important priority agenda in the Mediterranean, particularly for the past two decades. The Barcelona Convention in particular played a convening role and an important umbrella for a multitude of MPA initiatives in the region, with several actors increasing their efforts to support the achievement of the global 2012 MPA target and the subsequent Aichi Target. In this regard, its Contracting Parties have adopted in 2009 a “Regional Working Programme for the Coastal and Marine Protected Areas in the Mediterranean Sea including the High Sea”. Furthermore, a Roadmap was recently developed to support achieving the revised Aichi Target 11 in the region. It is intended to be adopted by the Mediterranean countries in early 2016.

In 2012, the Mediterranean counted with 170 MPAs with a legal designation; 161 established under a national designation, and 9 with an international designation¹. Between 2008 and 2012, the Mediterranean saw only a very modest increase of its MPAs number and surface. Indeed, only 23 MPAs were created in that period, representing an additional surface of 6,754 km². This is a modest increase if we compare it to the global trend over the same period, indeed, the number of MPAs almost doubled going from 5045 MPAs in 2008² to 10,248 MPAs in 2012³ with the global protected areas coverage more than tripling from 2.5 million to 8.3 million km².



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Figure 1 : Kuriat Islands MPA in Tunisia

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- ⁽¹⁾ Gabrié C., Lagabrielle E., Bissery C., Crochelet E., Meola B., Webster C., Claudet J., Chassanite A., Marinesque S., Robert P., Goutx M., Quod C. 2012. The Status of Marine Protected Areas in the Mediterranean Sea. MedPAN & RAC/SPA. Ed: MedPAN Collection. 256 pp.
- ⁽²⁾ M. Spalding, L. Fish and L. Wood. 2008. Towards representative protection of the world's coasts and oceans – progress, gaps and opportunities. *Conservation Letters* 1, no. 5: 217-226.
- ⁽³⁾ Spalding M., Meliane I., Milan A., Fitzgerald C., Hale L. 2013. Protecting Marine Spaces: Global Targets and Changing Approaches. *Ocean Yearbook* 27: 213-248.

Table 1. Key numbers on the status of MPAs in the Mediterranean in 2012

4.56 %	8.22 %	2.7 %	23	55
Surface under legal protection (114,566 Km ²)	Surface under legal protection within 12 mile-zone/nautical mile	Surface under legal protection beyond 12 mile-zone/nautical mile	MPAs created since 2008 in 10 countries	MPAs in project in 10 countries

Source: Gabrié *et al.* 2012

“The Regional Project for the Development of a Mediterranean Marine and Coastal Protected Areas (MPAs) Network through the boosting of MPAs Creation and Management” (MedMPAnet Project), executed by RAC/SPA, has been developed in an effort to support Mediterranean countries increase their capacity to establish an ecologically coherent MPA network in the Mediterranean region, as called for by the Barcelona Convention’s Protocol concerning Specially Protected Areas and Biological Diversity in the Mediterranean (SPA/BD Protocol).

The project conducted four major thematic activities:

- (i) Establishing coordination mechanisms for regional MPA management ;
- (ii) Identification and planning of new MPA to extend the regional network and enhance its ecological representativeness ;
- (iii) Improving MPA management ;
- (iv) Ensuring financial sustainability of regional and national MPA networks.

These activities were implemented at varying degrees in 9 countries⁴ in the East and South Mediterranean (Albania, Algeria, Croatia, Egypt, Lebanon, Libya, Montenegro, Morocco, and Tunisia). Most countries involved in the project had completed or started national strategies on MPAs and the project played a key-enabling role for supporting parts of their implementation.

Since its inception, the MedMPAnet project has enabled the establishment of 7 new MPAs in 6 countries (See Table 1), trained over 240 professionals on various aspects of MPA management, produced some 50 technical reports and guidance documents, and raised awareness of key stakeholders on the importance of marine protected areas through producing numerous dissemination materials.

This report is not intended to summarise the project’s achievements. These are outlined in detail in several reports^{5,6}. Rather, this publication is meant to provide MPA stakeholders in the Mediterranean with a synthesis of the key lessons learned during the project. It also aims to offer some reflections on new challenges and opportunities for MPAs in the region in light of the new international developments since the project was conceived, and in particular the adoption of the Aichi biodiversity targets as well as the most recent adoption of the Sustainable Development Goals.

This report is structured around the major thematic activities carried out by the project which also correspond to key elements or steps in establishing MPAs: *Selecting Sites, Engaging Stakeholders, Building Capacity and Financing Sustainably*. Each of these sections provides some key lessons, illustrated examples and conclusions from the project. The final section Looking Forward provides some food for thought to Mediterranean countries and MPA stakeholders on future priorities that should be considered to advance the marine conservation agenda and contribute to global efforts on marine targets.

⁽⁴⁾ In total, 12 Mediterranean riparian countries (Albania, Algeria, Bosnia & Herzegovina, Croatia, Egypt, Lebanon, Libya, Morocco, Montenegro, Syria, Tunisia and Turkey) are involved in the MedMPAnet project. Nine of them (Albania, Algeria, Croatia, Egypt, Lebanon, Libya, Morocco, Montenegro and Tunisia) benefited from the implementation of the four major thematic activities at varying degrees, while Bosnia & Herzegovina, Syria and Turkey benefited only from the regional activities, in particular those linked to capacity building.

⁽⁵⁾ http://www.rac-spa.org/nfp12/documents/information/wg.408_inf24_eng.pdf

⁽⁶⁾ Strategic Partnership for the Mediterranean Sea Large Marine Ecosystem (MedPartnership), Integration of climatic Variability and Change into National Strategies to implement ICZM Protocol (CLIMVAR & ICZM). Summary Activity Report 2009-2015. UNEP/MAP. Athens. 2015.

Box 1. The MedMPAnet Project

The UNEP/MAP-GEF “Strategic Partnership for the Mediterranean Sea Large Marine Ecosystem” (MedPartnership) project includes four components, one of which (Component 3) relates to the “Conservation of Biological Diversity: implementation of SAP BIO⁷ and related National Action Plans”. This component specifically addresses the decline of biodiversity and fisheries in the Mediterranean. Sub-Component 3.1 (“Conservation of Coastal and Marine Diversity through the Development of a Mediterranean Marine Protected Area (MPA) Network”) is implemented through two complementary projects, the “MedMPAnet” project led by RAC/SPA and the “MedPAN South” (and later “SEA-Med”) project led by WWF MedPO.

The MedMPAnet Project (“Regional Project for the Development of a Mediterranean Marine and Coastal Protected Areas (MPAs) Network through the boosting of MPAs Creation and Management”) involves 12 eligible Mediterranean riparian countries that are: Albania, Algeria, Bosnia & Herzegovina, Croatia, Egypt, Lebanon, Libya, Montenegro, Morocco, Syria, Tunisia and Turkey.

It is a 5-year project that spanned from 2010 to 2015, aiming at enhancing the effective conservation of marine and coastal biodiversity features, through the creation of an ecologically coherent marine protected area (MPA) network in the Mediterranean region, as required by the Barcelona Convention’s Protocol concerning Specially Protected Areas and Biological Diversity in the Mediterranean (SPA/BD Protocol).

The MedMPAnet project has implemented numerous activities along the following lines:

- Demonstration projects for MPA creation and planning, including local stakeholders participation and financial sustainability mechanism;
- Identification of national priorities and characterization of marine sites suitable to become MPAs;
- Technical assistance and capacity-building to improve new/existing MPA management;
- Communication and public awareness of key stakeholders on marine protected areas roles and values.

Over its five years of operation, 24 priority conservation areas have been identified and ecologically surveyed, 7 areas totalling a surface of 98,411 ha were declared or are in the process of declaration as MPAs, 4 management plans for new MPAs were elaborated in a participatory manner and 600 persons benefited of at least one training.



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Figure 2 : Participants to the MedMPAnet project final workshop (Tunis, Novembre 2015) where all the project’s results were presented and important lessons have been learnt

⁽⁷⁾ Strategic Action Programme for the Conservation of Biological Diversity in the Mediterranean Region

Table 2. Outlook on MPA context in countries where the project enabled establishment of new MPAs.

Country	(M)PA Legislation	National (M)PA Strategy	Existing MPAs in the country before the project	MPA sites supported by the project	Legal Declaration of the new MPA	Management Plan of the new MPA	Stakeholders' consultation for the new MPA
Albania	Law on Protected Areas (8906 / 06.06.2002 amended by 9868 / 04.02.2008) ⁸	No specific MPA/PA strategy. MPAs are dealt with under the National Biodiversity Strategy and Action Plan	Karaburun-Sazan National Marine Park	Porto Palermo MPA	Ongoing	Yes	Yes
Algeria	Law on Protected Areas: Law no. 11-02 of 17.02.2011 ⁹	National Strategy for the Conservation and Sustainable Use of Biodiversity – with one component on MPA	Banc des Kabyles Marine Reserve Habibas Islands	Réghaia Marine Reserve	Ongoing	Yes	Yes
Lebanon	Law no. 690 dated 26.08.2005	Lebanon's Marine Protected Area Strategy ¹⁰	Palm Islands Nature Reserve Tyre Coast Nature Reserve	Enfeh-Ras Chekaa Nature Reserve Nakoura Nature Reserve	Declared Declared	No No	Yes Yes
Libya	No specific MPA law. A draft law on PAs has been prepared with the assistance of RAC/SPA	A draft strategy has been prepared with the assistance of RAC/SPA	Farwa Lagoon MPA	Ain Al-Ghazala Lagoon	Declared	No	No
Morocco	Law no. 22-07 relative to protected areas promulgated by le Dahir n° 1-10-123 du 3 Chaabane 1431 (16 July 2010)	Master Plan for Protected Areas (PDAP)	Al Hoccoima National Park	Cap des Trois Fourches	Ongoing	Yes	Yes
Tunisia	Law no. 2009-49 of 20 July 2009, relative to Marine and Coastal Protected Areas	National Strategy for the establishment and management of Marine and Coastal Protected Areas in Tunisia Tunisiaestablishment and management of Marine and Coastal Protected Areas in Tunisia	La Galite Archipelago Zembra and Zembretta National Park Kneiss Islands	Kuriat Islands	Ongoing	Yes	Yes

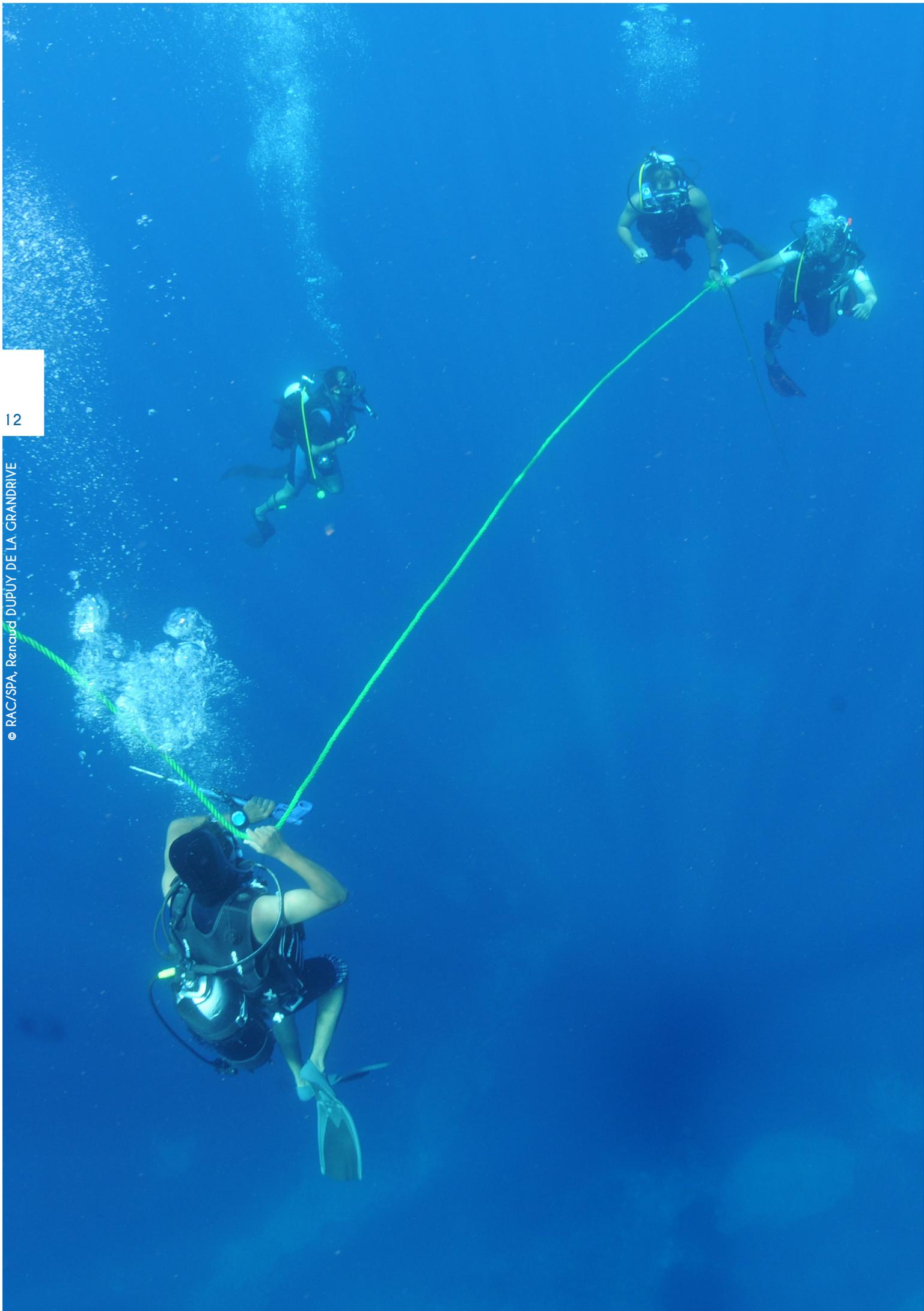
⁽⁸⁾ <http://mcpa.iwlearn.org/docs/legislative-and-regulatory-framework/pas-law/view>⁽⁹⁾ <http://faolex.fao.org/docs/pdf/alg106152.pdf>⁽¹⁰⁾ <https://portals.iucn.org/library/efiles/documents/2012-081.pdf>



Figure 3 : During the closure workshop of the MedMPAnet project in Lebanon (Beirut, April 2015), His Excellency the Minister of Environment of Lebanon declared the Enfeh-Ras chekaa and Nakoura as two new MPAs



Figure 4 : Preparation of a field mission in September 2010 in Ain El Ghazala in Libya together with EGA and WWF to gather key biological and socioeconomic information on the area. This area was subsequently declared by Libyan authorities as a new Marine Protected Area



2. SELECTING SITES

The project has supported six countries to create new MPAs. Some countries have already pre-selected the MPA sites according to already established national priorities or protected areas strategies (and in some cases strategies specific to marine protected areas) that aim to provide a roadmap for a more systematic approach to protected areas planning, establishment and management. This was the case for Algeria, Libya and Tunisia, where the sites have been pre-identified by the Governments.

The project also supported Lebanon, Montenegro and Morocco to select and prioritise areas to be protected. In the case of Lebanon and Morocco, both countries have national strategies or master plans for protected areas and the selection process aimed to support the implementation of the already established national objectives and criteria.

Several methodologies have been used to assist the countries with site selection, depending on their particular needs and specific context, particularly with regard to the availability of information on marine and coastal biodiversity. In Morocco, a systematic approach was used for site selection with the collection, analysis and synthesis of data to characterise sites identified in a national document as of biological and ecological interest, followed by the application of ecological and socio-economic criteria to select specific sites for protection. On the other hand, and due to lack of pre-existing data, rapid assessments of marine habitats were undertaken in Montenegro and Lebanon, followed by detailed ecological characterization of preselected areas.



Figure 5 : Meeting with representatives of the Ministry of Environment of Lebanon, RAC/SPA and the University of Alicante to establish priority activities needed to create new MPAs in Lebanon

Box 2. MPAs identification and selection in Morocco and Lebanon

Morocco's master plan for protected areas (*Plan Directeur des Aires Protégées du Maroc – PDAPM*) aims to establish a representative system of protected areas in 40 major natural ecosystems of the country and running on the ecological and socio-economic (mainly through a valuation of ecotourism).

Source: PDAPM¹¹

Lebanon's Marine Protected Area Strategy aims to:

- establish a more systematic approach to marine protected areas planning and establishment;
- enhance collaboration for management and monitoring of marine protected areas;
- increase awareness, understanding and participation of the local community in the marine protected areas network;
- link Lebanon's network of marine protected areas to Mediterranean networks.

Source: Lebanon's MPA Strategy¹²

In general, the selection of MPAs in the project has largely been done based primarily on ecological and biological criteria. This is largely following the countries' set objectives for MPA networks which are mostly about conserving biodiversity. While some socio-economic considerations are mentioned in national strategies, they often come into play only after the sites of biological and ecological importance have been selected.

The revised strategic plan 2011-2020 of the Convention on Biological Diversity greatly strengthens the emphasis on the broader benefits of biodiversity to people. While biodiversity per se remains important, the Aichi Targets expressly added the need to reconcile conservation and development, and conserve ecosystem service benefits for human well-being.

So far no MPAs were selected on the primary basis of contributing to socio-economic development or well-being of local communities. Socio-economic criteria have been rarely applied as a basis to systematically select MPA sites, and sometimes socio-economic data are not even collected in surveys to characterise potential MPA sites.

The process of site selection in Morocco is one of the few that has attempted to integrate socio-economic aspects from the start. The report characterising priority sites in needs of protection has considered various social and economic aspects of the areas, with a more particular focus on fisheries, but also considered tourism as well as agricultural and industrial activities in the regions. The Moroccan process also selected key socio-economic criteria to select the potential MPA sites; chief among them is the opportunity to develop revenue-generating activities that contribute to the socio-economic development of the area.



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Figure 6 : The Moroccan process to select the potential MPA sites integrated socio-economic criteria. (Photo of an artisanal fisherman from Dcharrana, Cap des Trois Fourches, in Morocco (September 2012))

⁽¹¹⁾ Administration des Eaux et Forêts et de la Conservations des Sols – AEFCS. 1996. Plan Directeur des Aires Protégées du Maroc. Vol. 1-5. Rapport inédit. Adm. Gen. Eaux et Forêts et Cons. Sols BCEOM-SECA.

⁽¹²⁾ Lebanese Ministry of Environment. 2012. Lebanon's Marine Protected Area Strategy: Supporting the management of important marine habitats and species in Lebanon. Beirut, Lebanon, Gland, Switzerland y Malaga, Spain: the Lebanese Ministry of Environment Ministry of Environment / IUCN. 64 pp.

Box 3. Selecting Le Cap des Trois Fourches in Morocco

In Morocco, the project has aimed at supporting the national vision and objectives as established in its Master Plan on Protected Areas (PDAPM), developed in 1995. Indeed, the starting point for selecting potential MPAs in the country was the Network of Sites of Ecological and Biological Interest (*Sites d'Intérêt Biologique et Ecologique* - SIBEs), which represented all of the country's natural ecosystems, and constituted the main elements of the PDAPM in Morocco.

The MedMPAnet project conducted a characterization of marine and coastal SIBEs to evaluate their potential for MPA selection. The results have provided an overview on the marine and coastal environment of Morocco, including socio-economic aspects, pressures and threats as well as legal and institutional frameworks related to the conservation of marine and coastal biodiversity in Morocco.

The marine and coastal SIBEs were then prioritised following a set of criteria which were developed taken into account the national context and priorities, in particular the original criteria for SIBEs selection, as well as other regional and international criteria, in particular the criteria for selecting ecologically and biologically significant marine areas (EBSA criteria) by the CBD and the criteria for selecting Specially Protected Areas of Mediterranean Importance (SPAMIs) by the Barcelona Convention.

These bio-ecological criteria were also complemented by a set of socio-economic criteria, which were:

- Importance of fisheries activities ;
- Possibility of creating revenue-generating activities (mainly recreational and tourism activities) ;
- Acceptance and support by local communities.

This work enabled reordering the priority levels of eight potential SIBEs namely:

- (1) Mouth of the Moulouya ;
- (2) Nador Lagoon ;
- (3) Cap des Trois Fourches ;
- (4) Cirque de Jebha ;
- (5) Coast Rhomara ;
- (6) Koudiat Taifour ;
- (7) Lagoon Smir ;
- (8) Jebel Moussa.

Three sites were particularly considered for their MPA potential: Cap des Trois Fourches, Jebel Moussa, and Cirque de Jebha. The Cap des Trois Fourches was selected as the most appropriate for piloting the establishment of an MPA because of its important bio-ecological characteristic, but most importantly considering the opportunity factor and feasibility given the low human pressure currently in the area.

The Moroccan experience highlights the importance of supporting the vision of the country and integrating the project activities with the established national priorities. For that understanding the national context is of critical importance, and the project has invested in a national coordinator that liaises between the central RAC/SPA team and the national and local authorities.

Source: RAC/SPA - UNEP/MAP, 2012. Rapport synthétique de la liste «Prioritaire» des sites méritant une protection au niveau des côtes méditerranéennes au Maroc. Par Bazairi H., Mellouli M., Aghmaj A., El Khalidi K. et Limam A. Ed. CAR/ASP- Projet MedMPAnet, Tunis : 60 pp. + Annexes. Pers. Comm. Dr Hocein Bazairi

The “opportunity factor” or “practicality” is a criteria that played an important role in the final selection of the MPAs in the project, with governments often prioritizing sites that present little conflict with other development interests, and in particular fisheries.

Indeed, in most countries, there is a long history of public or sectoral use of marine areas close to the coast

and MPAs are perceived as attempts to exclude these uses and jeopardize the well-being of the people, which often leads to strong community opposition. It follows from these economic and pragmatic considerations that where there is a choice of ecologically suitable areas, the dominant criteria for selection of MPA locations, boundaries and management systems were commonly opportunistic.

Box 4. Selecting Boka Kotorska Bay in Montenegro

At the start of the MedMPAnet project, Montenegro had not yet established any MPA. A rapid assessment was carried out to identify potential sites for MPAs. The Boka Kotorska Bay was primarily selected based on expert and local knowledge as well as an opportunity factor as it has less potential for conflicts. A more detailed survey was then carried out to establish a preliminary description of ecology as well as of small-scale fishery and coastal use in the area.

Based on the biological and ecological features of the Boka Kotorska Bay and taking into account the human activities occurring in the area as well as the identified main threats and sources of impacts, the establishment of an MPA covering the entire Bay was recommended to enable the conservation of its natural heritage and provide basis for the sustainable management of human activities.

The suggested objectives of the proposed MPA were:

- Preservation of the species, assemblages and habitats of special conservation interest ;
- Ensuring the sustainable management of two key fishery species for the area (the European sardine and the European anchovy) ;
- Sustainable development of sea watching activities (scuba diving, snorkelling, etc.).

The study also recommended that the protection and management measures of the MPA be set according to a zoning scheme using two conservation levels:

- A- Zones of high conservation interest to be established as no-take areas with a stricter regulation of human activities: these zones cover the areas with species listed in Annex II to the SPA/BD Protocol as well as areas of special functional role for the Bay ;
- B- Zones with medium conservation measures: These will be the Bay areas that are not included under A and where most of the human activities would be allowed except those having a negative impact on the marine environment of the Bay.

The study also recommended that the zoning definition and setting of the related regulation be carried out on the basis of the available scientific data, in addition to a consultation process involving all the stockholders (administrations, sea users, scientists, relevant NGOs, etc.).

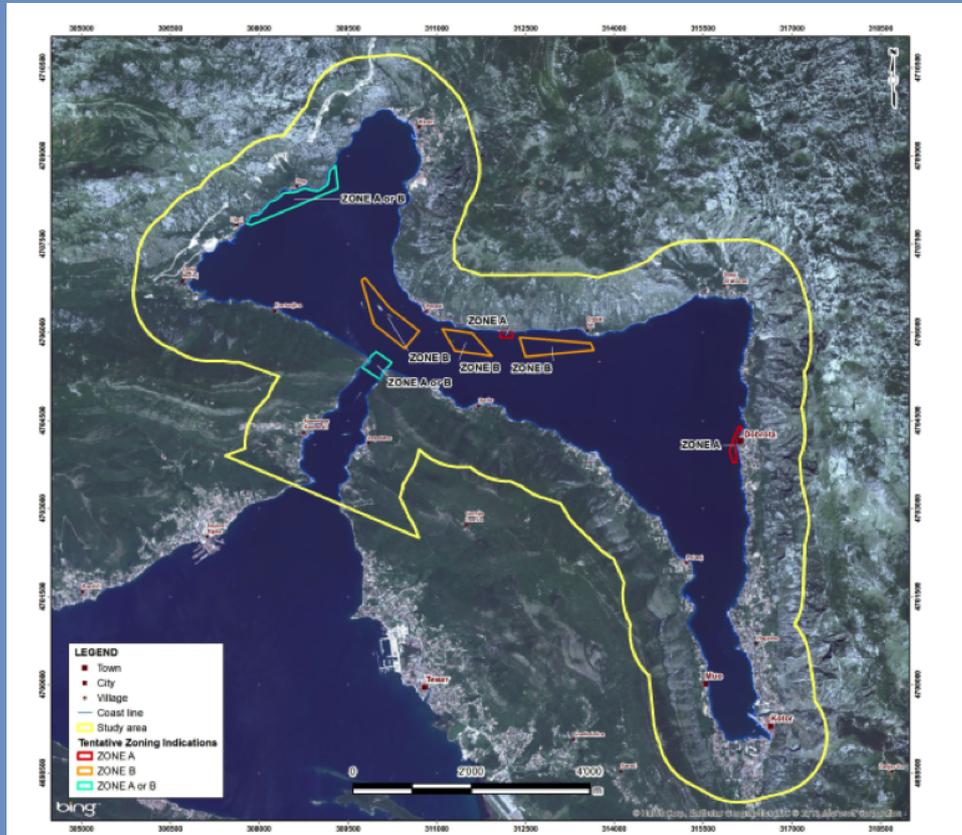


Figure 7 : Tentative preliminary zoning indications in the Boka Kotorska Bay (Montenegro)

Source: RAC/SPA - UNEP/MAP, 2013. *Ecological quantitative description of Boka Kotorska Bay marine area (Montenegro)*.
By Golder Associates. Ed. RAC/SPA - MedMPAnet Project, Tunis: 82 pp + Appendices.
Pers. Comm. Dr Vesna Mačić



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Figure 8 : The Boka Kotorska Bay in Montenegro, primarily selected based on expert and local knowledge, was then subject to ecological and socio-economic surveys that recommended its establishment as an MPA



© RAC/SPA, Golder Associates

Posidonia oceanica



© Vesna MACIĆ

Cystoseira barbata



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Aplysina aerophoba



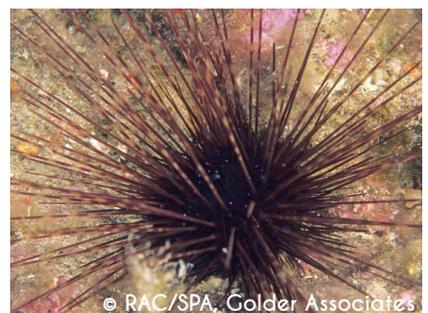
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Savalia savaglia



© RAC/SPA, Golder Associates

Lithophaga lithophaga



© RAC/SPA, Golder Associates

Centrostephanus longispinus

Figure 9 : Photos of endangered or threatened species according to the Annex II of SPA/BD Protocol identified in the Boka Kotorska Bay in Montenegro

Box 5. Ecological characterization of sites of interest for conservation as a basis for selecting future MPAs in Lebanon

For Lebanon, the project activities were outlined in close consultation with the Ministry of Environment (MoE) and aiming to contribute to the implementation of the Marine Protected Areas Strategy in Lebanon, which overall objective is to develop an effective MPA Network contributing to sustainable development by enhancing natural and cultural diversity.

Coordination missions were undertaken to:

- (i) prepare a rapid review of what has been done in relation to marine protected areas ;
- (ii) to identify the potential site(s) to be surveyed with clear rationale and justifications for their future establishment as Marine Protected Areas.

A multilateral collaboration has been set up between the representatives of the Ministry of Environment of Lebanon, RAC/SPA, the University of Alicante and the Museo del Mar - Ceuta (Spain), the Lebanese University, the Lebanese National Centre for Marine Research (CNRS) and the IUCN Centre for Mediterranean Cooperation (IUCN-Med).

A multidisciplinary team undertook the field surveys at Enfeh Peninsula, Ras Chekaa cliffs, Raoucheh, Saida, Tyre and Nakoura sites during 2012 and 2013. They explored the suggested areas and elaborated an updated inventory of the biodiversity of species and habitats, mainly targeting species with heritage value and mapped and characterized habitats, suggesting those that should be protected.

Based on a number of biological and ecological criteria, the study evaluated the potential MPAs and suggested priorities and management measures for their conservation. Consideration of socio-economic data and criteria was only marginal.

Sources: Lebanon's Marine Protected Area Strategy, 2012. RAC/SPA - UNEP/IMP, 2014. Ecological characterization of sites of interest for conservation in Lebanon: Enfeh Peninsula, Ras Chekaa cliffs, Raoucheh, Saida, Tyre and Nakoura. By Ramos-Esplá A.A., Bitar G., Khalaf G., El Shaer H., Forcada A., Limam A., Ocaña O., Sghaier Y.R. & Valle C. Ed. RAC/SPA - MedMPAnet Project, Tunis: 146 p + annexes.

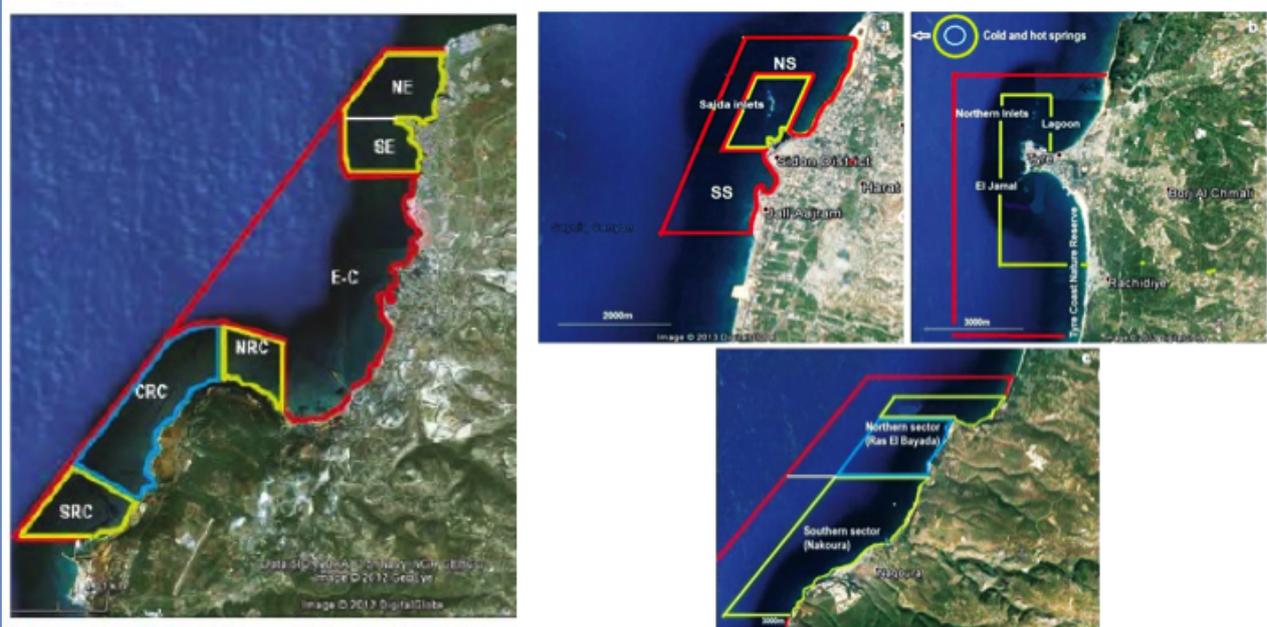


Figure 10 : Proposed MPAs and possible zoning: core area (blue), buffer area (green) and multi-use or peripheral area (red). Zones: a) Enfeh, b) Ras Chekaa, c) Saida; d) Tyre; e) Nakoura

Future priorities:

It is important that Mediterranean efforts to increase MPA coverage to reach the global Aichi target 11 keep in mind that the target extends beyond metrics of spatial coverage. Indeed, the Aichi target calls for elements of representativeness, for ecosystem services benefits, for effectiveness and equity in management and for the consideration of protected areas within wider seascape settings.

The global increase in MPA coverage was primarily driven by the establishment of a small number of very large sites, which are mostly in remote offshore locations, where protection costs per unit area are relatively low and where there are little challenges or conflicts from local stakeholders. Such areas are difficult to establish in the Mediterranean, particularly as many countries have not declared their Exclusive Economic Zone (EEZ), and the area within national jurisdiction is often limited to 12 NM.

With Mediterranean countries advancing in the implementation of their national strategies for establishing protected areas systems, and as the number of established MPAs increases and the “low hanging fruits” MPA opportunities decrease, **the strategies for selecting future MPA sites should pay particular attention to the ecological coherence, connectivity and the complementarity within the desired MPA network or system.** So far, these considerations have been minimal.

In addition, the Aichi Targets set revised priorities and new elements in the selection and management of MPAs network. **Indeed, the revised language on spatial protection measures presented in Aichi Target 11 includes a novel concept that adds ecosystem services alongside biodiversity as a central criterion for selecting conservation areas.**

A vision of “living in harmony with nature” overarches all the Aichi Targets, and **achieving the targets requires a shift in the objectives and design of conservation measures to deliver benefits for people.** Such a shift may not seem as profound given that many studies have highlighted the importance of MPAs for communities’ welfare, and such benefits are often listed as justification for establishing MPAs. It represents however a significant shift from the 2010 protected areas targets, which remained exclusively focused on biodiversity benefits as a primary objective. It also challenges the existing site selection and prioritization approaches that tend to focus mainly and often exclusively on biodiversity criteria¹³.

Given the close connection between the Mediterranean communities and the sea, and the intense use of the maritime space in the region, the consideration of socio-economic criteria from the start should become the standard in selecting future MPAs. **The Mediterranean has the potential to become a laboratory of innovation and a leading actor in designing novel systems of MPAs that integrate both socio-economic and biodiversity factors and contribute to the socio-economic development of its societies.**



Figure 11 : Fishing activity in Ain Al-Ghazala MPA in Libya

⁽¹³⁾ Spalding M., Meliane I., Milam A., Fitzgerald C. and Lynne Z. 2013. Protecting Marine Spaces: global targets and changing approaches. *Ocean Yearbook* 27: 213-248.



3. ENGAGING STAKEHOLDERS

The design and implementation of thousands of MPAs around the world over the past decades has led to an important lesson: that social factors are the key determinants of the success of the MPAs, which primarily depends on user compliance^{14,15}. This stresses the importance and the increasing interest in stakeholder involvement in MPA design, planning and management^{16,17}.

Agencies dealing with MPAs in the Mediterranean are showing a recent and growing interest for designing and conducting effective MPA participatory processes, particularly in the past few years. The MedMPAnet project has developed a stakeholder participation toolkit for identification, designation and management of MPAs¹⁸, in collaboration with the IUCN Centre for Mediterranean Cooperation, with the view to contribute to strengthening and improving governance arrangements in Mediterranean MPAs. The MedMPAnet project also specifically supported participatory approaches in the establishment of new MPAs in Albania, Algeria, Morocco and Tunisia. In recent years, we noted a particular evolution of stakeholders' consultations in the South and Eastern Mediterranean which is in some cases due to the nascent democracies in the region, and in particular an increase of the number and role of civil society organizations.

The project's experience in supporting participatory processes yielded two important considerations, particularly for international organizations supporting participatory processes:

- 1- *The need to invest in understanding the initial perceptions and local dynamics:* The success of MPAs is dependent on positive local perceptions of its socio-economic and ecological outcomes. A stakeholders' consultation process has to particularly understand the dynamics between the local stakeholders, and invest in surveying their initial perceptions. Of critical importance is the engagement of local experts or personas that

understand and are attuned to the local context and dynamics to moderate and manage the process. This is particularly the case for projects and activities supported by international agencies, which tend to call on international experts for advice and support.



Figure 12 : Example of a meeting with a fishermen to understand his perception of the establishment of the Kuriat Islands MPA

- 2- *The necessity to carry out the process in the local language where possible:* For internationally funded MPA projects in the Mediterranean, workshops are often carried out in English and sometimes in French. Investing in carrying the workshops and issuing the reports in the local language is essential to ensure an effective participation of all stakeholders and build trust in the management of the nascent MPA as its support is also dependent on the local perceptions of the quality of management and governance policies, and processes. Indeed, the MedMPAnet project experience in carrying out consultations in national and local languages in Albania, Algeria, Libya, Morocco and Tunisia has been extremely fruitful and positive.

⁽¹⁴⁾ Mascia, M.B. 2003. The Human Dimension of Coral Reef Marine Protected Areas: Recent Social Science Research and Its Policy Implications. *Conservation Biology* 17: 630-632.

⁽¹⁵⁾ Sumaila, U. R., and A. T. Charles. 2002. Economic models of marine protected area: an introduction. *Natural Resource Modeling* 15: 261-272.

⁽¹⁶⁾ Salm, R.V., J.R. Clark, and E. Siirila. 2000. *Marine and Coastal Protected Areas: A Guide for Planners and Managers*. Washington, DC: International Union for the Conservation of Nature and Natural Resources. Washington, DC.

⁽¹⁷⁾ NOAA. 2004. *Stakeholder Participation: A Synthesis of Current Literature*. 24 pages.

⁽¹⁸⁾ RAC/SPA and IUCN-Med. 2013. *Stakeholder Participation Toolkit for Identification, Designation and Management of Marine Protected Areas*. Ed. RAC/SPA, Tunis. 30pp.

Box 6. Stakeholders' consultation for developing the management plan of the Kuriat MPA in Tunisia

In Tunisia, the MedMPAnet implemented activities in collaboration with the Agency for Coastal Protection and Planning (*Agence de Protection et d'Aménagement du Littoral* – APAL) to conduct a pilot project for the creation, planning, zoning and development of a future marine and coastal protected area in the Kuriat Islands (Centre-East of Tunisia). The development of a management plan was done with a strong involvement of the local communities and a specific stakeholder engagement and mobilization strategy was developed in an effort to gain consensus and secure commitment of all stakeholders on the MPA objectives and its management plan. The strategy was developed beyond a simple consultation process, and with a forward looking vision to initiate involving the various stakeholders in the management of the future MPA.

To achieve such objective, secure tangible results and to effectively mobilize the key and influential actors in the management, the process of developing the management plan adhered to some of the following principles:

- Better understand the interests, needs and concerns of various stakeholder groups including those less endowed with powers ;
- Assign clear responsibilities ;
- Communicate clearly with all stakeholders on the changes sought, the promises and commitments ;
- Identify resources and partnerships necessary to achieve the expected results ;
- Mobilize resources ;
- Develop clear performance indicators for monitoring and evaluation.

Indeed, with regard to the first principle, efforts were made to go beyond simply collecting data and mapping stakeholders' interests. A sociologist was involved in engaging specific groups, particularly fishermen and boaters. Special attention was given to reaching out to fishermen in places they frequent for initial consultations, as opposed to inviting them to a governmental building.

Throughout this participatory approach, a clear desire for involvement emerged, although uneven, between the different stakeholder groups. It also generated a palpable confidence and hope in this participatory and collective process that marked a very different approach in the development of the management plan. Civil society and private sector organizations have called for a partnership approach and co-management of the area and various stakeholders expressed their commitment for an active involvement in the implementation of the management plan.

This doesn't mean that there was no opposition to the MPA from some user groups. Indeed, users voiced different aspirations between those dedicated to conservation and those devoted to development. In addition, many operational challenges remain; particularly with the actual involvement of fishermen's organizations and NGOs in the management phase, depending on their skills, capacities and resources and the evolution of their perception and compliance with the protected area management principles. The stakeholders have also raised a number of concerns with regard to other marine activities neighbouring to the MPA, in particular with siting of aquaculture installations. This raises the need for close coordination with other agencies, and developing marine spatial plans for the entire maritime space, including outside the boundaries of the MPA.

This participatory approach is one of the first experiences in Tunisia and is still in its infancy, but it is an important step forward. The Agency's willingness and persistence on this path is needed for achieving an integrated, collaborative and multi-stakeholder management.

Source: CAR/ASP - PNUE/PAM. 2014. Elaboration d'un Plan de Gestion pour l'Aire Marine et Côtière Protégée des îles Kuriat (Tunisie) - Phase 1, 2 & 3. Par Thetis-Cabinet Sami Ben Haj. Ed. CAR/ASP - Project MedMPAnet, Tunis. Pers. Comm. Saba Guellouz

Table 3. Proposed governance and management structure for the Kuriat MPA

	Coordination	Consultation	Implementation
National	National Commission for MCPAs APAL Central Administration Ecosystem Management Directorate		Ecosystem Management Directorate
Regional (sub-national)	Management Unit	APAL Regional Directorate Local Advisory Committee	Management Unit Partners

Similar appetites for more participatory approaches in the establishment and management of MPAs are also noticeable in Albania, Algeria and Morocco. In addition, there's a desire by several Mediterranean countries to move

towards shared or delegated management responsibilities. For instance, Algeria, Morocco and Tunisia have enacted clauses for potential co-management regimes in their protected areas laws, but these have not yet been operationalized.



© RAC/SPA, EEAA, Environics

Figure 13 : The success of MPAs is dependent on positive local perceptions of its socio-economic and ecological outcomes (photo taken during the socio-economic survey in Sallum MPA (Egypt, April 2015))

Future priorities:

While we saw a surge of new experiences with different governance and co-management approaches for MPAs in many regions of the world, MPAs in the Mediterranean remain largely government-run with a more traditional governance structure. The Aichi Target 11 explicitly uses the term “equitably managed” to reflect the importance of addressing both equity and governance issues as fundamental to the success of MPAs, and the need to undertake further efforts in this regard. **Increasingly, the inclusion of principles of equity, power sharing, participation, and sharing of benefits are becoming a norm in MPAs at local and national levels.** These principles are also increasingly being incorporated into governments, NGOs, and donor policies, and used as tools by communities to demand changes in policy and practice¹⁹.

More work remains to be done in the Mediterranean on reforming and operationalizing the legal frameworks for protected areas management to address aspects of rights and benefit sharing and empower co-management by civil society, communities and other partners.

With nascent democracies in the South Mediterranean there is more openness of governments to involve civil society. There is also an increased number of stronger and more active civil society organizations, that are showing improved capacities, increased professionalism and fundraising abilities. Such factors open new opportunities for enabling more participatory management of MPAs in the Mediterranean, **and investing in further building capacities of stakeholders so they can engage fully and assume responsible stewardship of the areas. The time is ripe for the Mediterranean to take on this challenge.**

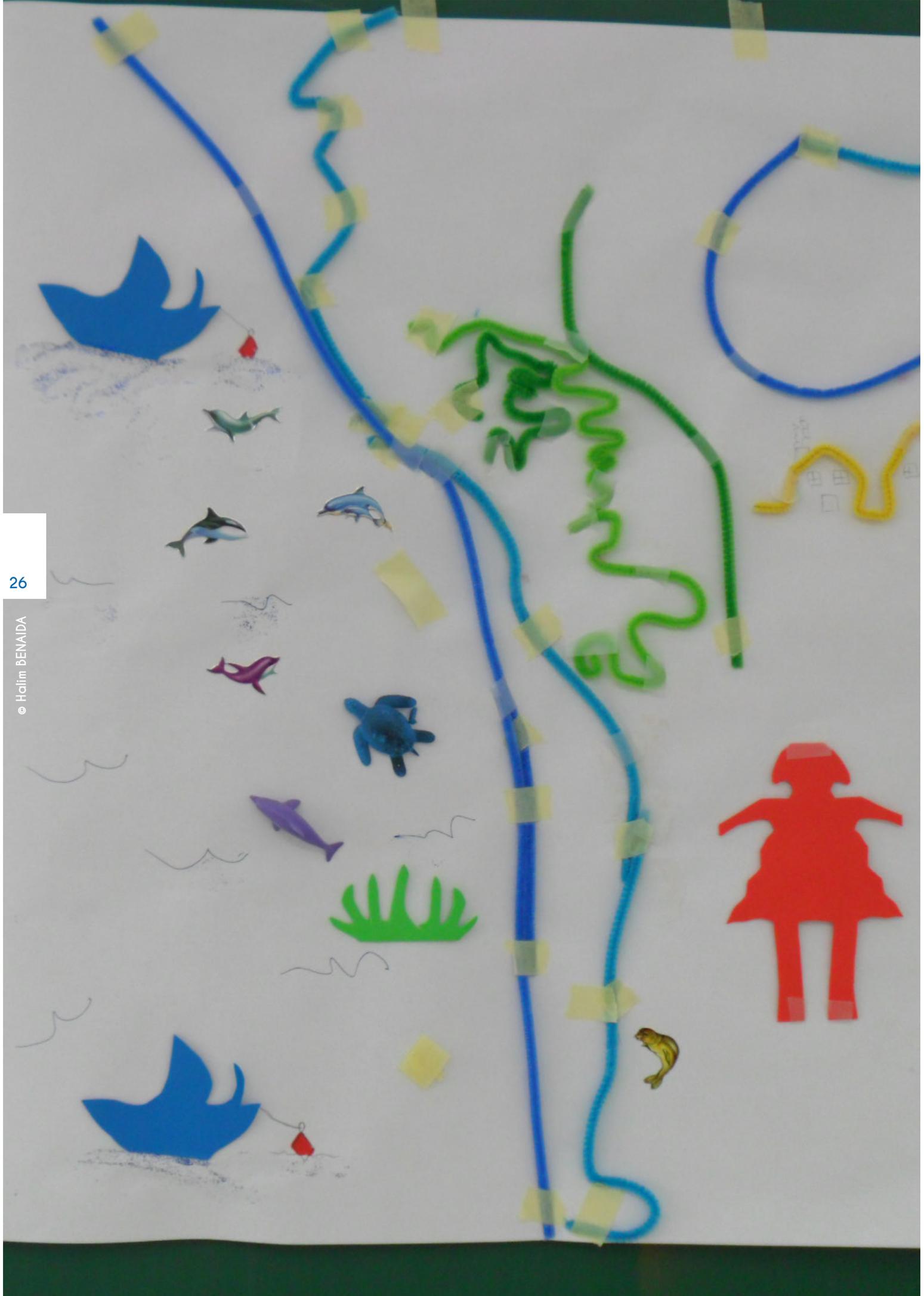


Figure 14 : Ahmed Ghedira, president of 'Notre grand bleu' association, a tunisian NGO actively supporting APAL in the implementation of the Kuriat Islands management plan through awarness raising campaigns, environmental engineering activities, consultation with local stakeholders, etc.

⁽¹⁹⁾ A. Kothari. 2008. Protected areas and people: the future of the past. Protected Areas Programme 17 no. 2: 23-34

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4. BUILDING CAPACITY

The availability of skilled personnel is fundamental to the success of establishment and management of MPAs. That is why, although the original MedMPAnet project design didn't focus on capacity building²⁰, the project responded to countries demands and integrated aspects of capacity building in its activities. In addition, the project collaborated with WWF Mediterranean Programme (WWF MedPO) and MedPAN in developing a capacity building strategy to enhance the management of MPAs in the Mediterranean²¹, as well as an overall framework for the development of future MPA management tools and guidebooks to ensure that these are fully adapted to the Mediterranean context and effectively respond to the needs of the MPAs managers²². The three partners also developed a regional portal for capacity building opportunities and tools dedicated to MPAs in the Mediterranean²³.

The capacity building strategy started with an assessment of the needs and priorities at both the national and the MPA levels. It also analysed existing capacity

building programmes and activities in the region with some evaluation of their achievements. These analyses enabled formulating a capacity building strategy aimed to respond to the management needs of the Mediterranean MPAs at the regional, national and local levels and identify effective delivery mechanisms in collaboration with regional, national and local actors.

The theme of ecological monitoring was identified as one of the five priority training topics in the capacity needs assessment survey. The MedMPAnet project collaborated with the University of Alicante and the Marine Reserve of Nueva Tabarca (Spain) to develop a series of 4 training sessions that were delivered annually from 2011 to 2014. The emphasis was to develop practical trainings with a simplified ecological monitoring that meets the needs of countries in the Southern and East Mediterranean and takes account of the means at their disposal. An evaluation of the training was undertaken through a survey that participants filled at the end of each session.



Figure 15 : Trainees on the field in Nueva Tabarca Nature Reserve, Spain

- ⁽²⁰⁾ Under the MPA subcomponent of the MedPartnership Project, capacity building activities have been mainly executed by WWF MedPO.
- ⁽²¹⁾ Di Carlo G., Lopez A., Staub F. 2012. Capacity building strategy to enhance the management of MPAs in the Mediterranean Sea. Commissioned by WWF MedPO / MedPAN / UNEP/MAP-RAC/SPA. 19 pages + Annexes.
- ⁽²²⁾ Ben Haj. 2012. Development of guidebooks for marine protected areas managers in the Mediterranean. Commissioned by MedPAN / RAC/SPA/ WWF MedPO. 27pp + Annexes.
- ⁽²³⁾ <http://mpatraininginthemed.org>

The project also collaborated with WWF MedPO and NOAA's International MPA Capacity Building Programme (NOAA MPACBP) in the delivery of targeted MPA capacity building activities.



Figure 16 : Participants during the the Regional Training Workshop on «Planning for Sustainable Tourism in MPAs» (October 2011, Split-Croatia) co-organized by WWF MedPO nad RAC/SPA with the support of NOAA MPACBP

Furthermore, the MedMPAnet project responded to specific requests by countries for trainings on specialised topics. The project has carried out 9 national training workshops that benefited 96 participants in Albania, Croatia, Libya, Montenegro and Morocco. The topics identified by the countries concerned Geographic Information System (GIS) application into marine environment, stakeholders' participation, socio-economic assessments, eco-tourism, and sustainable financing. In addition to these trainings and taking advantage of the field ecological surveys undertaken by the project, 10 on-the-job trainings were delivered to 48 young scientists and local experts.

These recent initiatives have reconfirmed a number of valuable lessons identified in the capacity building strategy that are important to keep in mind and apply in future capacity building activities:

- A regional programme has several advantages over national training programmes. It is more cost-efficient

because the number of potential trainees increases, more importantly, the participants can exchange national experiences and develop a support network with their peers, and last but not least, management of marine areas covers cross-boundary issues that are best considered within their regional context ;

- The effectiveness of the capacity building programme to deliver its objectives highly depends on the selection of the participants. This is perhaps the most challenging point, particularly as the selection of participants to such programme often has to be done through official channels and administrative nominations. It is often the case that the proposed participants don't have the best profile or requirements for the training. Those in a position to select or propose participants to capacity building programmes need to make every effort to select professionals that would directly benefit from the new skills and that are not only willing and interested in improving their capacity, but also willing to invest in sharing that capacity with other practitioners within their institutions and countries ;
- The training content is best received when it is made relevant to the Mediterranean setting and particularly including geographically representative case studies and management settings and capacities that participants can relate to. However, in many cases it may be necessary to rely on examples from a wider geographic reach and in such cases, efforts need to be made to outline and analyse the relevance of the example to a Mediterranean setting and how it can be applied to or adapted in the region ;
- Hands on experiential approaches to learning are best at learning how to address complex management issues; where possible programmes needs to integrate diverse delivery methods – such as field work and site exchanges ;
- Post-training coaching, networking and experience sharing are amongst the most appreciated gains from the capacity building programmes. The Mediterranean Capacity Building Programme built in specific components such as the mentor's programme and Implementation agreements to increase such benefits.

Box 7. Implementation Agreements

Each country participating in the regional training workshops co-organised by WWF MedPO and RAC/SPA is asked to identify a particular area of interest or needs and outline a specific project that would be implemented in their MPA over the year that follows the training.

These projects are included in a contract – an Implementation Agreement – with WWF MedPO or RAC/SPA. RAC/SPA has supported 4 implementation agreements in Albania and Montenegro.

These agreements incentivise participants to implementing the agreed activities, while WWF MedPO and RAC/SPA commit to providing the necessary financial and technical assistance for them to achieve the agreed objectives.

About 11 Implementation Agreements were agreed upon at each Regional Training Workshop.

Source: http://mediterranean.panda.org/about/marine/marine_protected_area/the_medpan_south_project/capacity_building_implementation_programme/

Future Directions:

The review of capacity building initiatives in the Mediterranean has identified some 250 training opportunities related or applicable to MPA management that were delivered in the 5 years between 2007 and 2012 by 51 national and international organizations²⁴. However we are not aware of proper impact evaluation that has been carried out on capacity building programmes for Mediterranean MPAs. Such impact evaluation are much needed to assess factors of success or failure in much more depth than simple post-training surveys that often provide biased and inaccurate results. Improving capacity in establishing and managing MPAs in the Mediterranean would require a stricter and more thoughtful approach in capacity building initiatives. The Capacity Building Programme jointly developed by WWF MedPO, RAC/SPA and MedPAN is an important step in that direction.

Capacity building programmes in the Mediterranean have so far focused on building certain skills and competencies.

On that front, there are still unmet needs about improving the knowledge basis on MPA management skills. Some progress has been achieved on ecological monitoring and also participatory approaches, but more efforts are still needed in building competencies for business planning and developing sustainable financing strategies for the MPA systems, which in turn necessitates stronger considerations of socio-economic aspects of MPAs in the Mediterranean.

In order to support a more participatory management, there is a need to have targeted capacity building initiatives to civil society and local communities to enable them to effectively participate in the management of the MPAs.

In addition to improving competencies, the Mediterranean (particularly the South and East) is in dire need to address the lack of dedicated managers and other professional staff to the MPAs. This will require a radically different approach in developing novel capacity building programmes and to work with the agencies in their long term planning and support them to build and increase their staffing capacity.



Figure 17 : Participants' expectations from the regional workshop on sustainable tourism in MPAs showing their willingness to learn, benefit and apply the training's recommendations in their day to day work

Box 8. Differentiating Competence, Capability and Capacity

Competence is the quality or state of being functionally adequate or having sufficient knowledge, strength and skill. Competence is another word for an individual's know-how or skill. When we are asking whether we have the right competencies aren't we really asking, "Who knows how?" and "How well do they know?"

Capability is a feature, faculty or process that can be developed or improved. Capability is a collaborative process that can be deployed and through which individual competences can be applied and exploited. The relevant question for capability is not "who knows how?" but "How can we get done what we need to get done?" and "How easily is it to access, deploy or apply the competencies we need?"

Capacity is the power to hold, receive or accommodate. Capacity is really about "amount" or "volume." The relevant question related to capacity is "Do we have enough?" and the related question, "How much is needed?"

Source: *Innovating Perspective* ²⁵

⁽²⁴⁾ Di Carlo G., Lopez A., Staub F. 2012. Capacity building strategy to enhance the management of MPAs in the Mediterranean Sea. Commissioned by WWF MedPO / MedPAN / UNEP/MAP-RAC/SPA. 19 pages + Annexes.

⁽²⁵⁾ Voncent, L. 2008. Differentiating competence, capability and capacity. *Innovative Perspective* Vol 16, nb 3.



ATENCIÓN

ATTENTION

5. FINANCING SUSTAINABLY

Establishing and maintaining effectively managed MPAs requires dedicated and predictable long-term financial support. Yet, the majority of MPAs in the Mediterranean remain woefully underfunded and as a result struggle to meet management and conservation goals. The insecure financial situation of MPAs sets off a cascade of management problems: funds are necessary to hire staff, manage and monitor the protected area, invest in infrastructure and carry out research on local species and habitats.

This situation is not unique to the Mediterranean, a growing number of MPAs around the world are faced with persistent budget shortfalls and declining funding sources. Over the past decade, the issue of sustainable finance for MPAs has been an important global issue and several countries, regions and organizations have pioneered new MPA financing systems and revenue generating methods. The Mediterranean has only recently started dedicated efforts on this topic. The MedMPAnet project is one of the first to address sustainable financing of MPA in a systemic fashion. MedPAN and RAC/SPA, in collaboration with WWF MedPO, have commissioned a study that represents the first assessment of financing needs and gaps both for effective management of Mediterranean MPAs and for achievement of the Aichi Targets of 10 % of the marine area protected in the Mediterranean Sea²⁶. The study developed a new approach - the first of this kind in the region. It has collected and compiled both local data on MPA financing and national data on resource mobilization for MPAs in 17 countries of the Mediterranean Sea to estimate the size of the funding gap for effective management of MPAs in the region and attainment of the Aichi Target. The analysis shows an average level of available finances of € 18,500 per km² of MPA, with human resources being the main cost item. However, the available finance is much less in non-EU countries. The study confirms the urgent need to consider an increase in current funding for existing MPAs in the Mediterranean region, given that current resources cover only 12 % of the financial needs for effective management of MPAs. Indeed, the estimates for financial needs of national MPAs systems, aggregated for 14 countries in the region, show a financing gap (available funds minus financial needs) of € 700 M per year. While this number may seem large considering national budgets assigned to

conservation, it represents only 3.6 % of the annual revenues of international tourism in the Mediterranean, which were estimated at € 190 bn in 2011²⁷.

In an effort to increase the capacity of MPA agencies, decision makers and managers to develop MPA sustainable financing mechanisms, the MedMPAnet project, in collaboration with MedPAN and WWF MedPO, developed a guide for sustainable financing of MPAs in the Mediterranean and recently held a training session aiming to promote the development of MPA sustainable financing mechanisms, at local and national scales²⁸. The session made a case for managers and conservation stakeholders to engage in developing financial strategies of their MPAs. It also provided the participants with necessary background information, expertise, tools, and tailored case studies for national authorities in charge of MPAs to identify and develop sustainable financing mechanisms in line with their potential financing needs.

In addition, the guide for sustainable financing of MPAs in the Mediterranean provides MPA managers and national authorities with tools and a step-by-step approach for the development and implementation of financial strategies. It also provides guidance on potential sources of funding including innovative financial mechanisms, which may supplement the current funding of MPAs.

Globally, a range of different tools and approaches has been tested and showed interesting potential to enhance management effectiveness through diversified revenue streams, improved administrative efficiency, establishment of market and conservation incentives, and increased benefit sharing with local communities. Financing mechanisms with potential to increase MPA funding sources include fiscal and financial instruments that have been long used in other sectors of the economy, such as taxes and credit schemes, and devolution of cost and benefit-sharing mechanisms for PA management and facilities as well as a wider adoption of incentive-based approaches such as payment of ecosystem services, developing new markets for MPA goods and services and stimulating (and rewarding) community and private sector participation in MPA management²⁹.

^{(26) (27)} Binet, T., Diazabakana, A., Hernandez, S. 2016. Sustainable financing of Marine Protected Areas in the Mediterranean: a financial analysis. Vertigo Lab, MedPAN, RAC/SPA, WWF MedPO. 115 pp.

⁽²⁸⁾ In partnership with the Corsican Natural Regional Park, and with the support of the French GEF (FFEM), the European Commission, The Spanish Agency for International Development Cooperation (AECID), the French Marine Protected Areas Agency, and the MAVA Foundation.

⁽²⁹⁾ Emerton, L., Bishop, J. and Thomas, L. 2006. Sustainable Financing of Protected Areas: A global review of challenges and options. IUCN, Gland, Switzerland and Cambridge, UK. x + 97pp.

Creating a trust fund for Mediterranean MPAs

Conservation Trust Funds (CTFs), also called Conservation Funds and Environmental Funds, are often defined as legally independent grant-making institutions that provide sustainable financing for biodiversity conservation and related sustainable development³⁰.

CTFs have been advocated as a main instrument to meet the need for long-term conservation funding and particularly in the case of protected area management. Various studies documented that they can improve the diversification of financing sources and help strengthen inter-sectoral collaboration and build institutional capacity at local and national levels, leading to better financial sustainability^{31,32}. They also have proven an ability to advance economic incentive mechanisms such as payments for ecosystem services (PES), by serving as an instrument for financial administration and an intermediary between buyers and sellers of ecosystem services. In addition, CTFs often bring together various donors, mobilize and invest funds from a range of sectors, to re-grant them to various stakeholders according to established criteria and priorities.

Globally, more than 70 CTFs have been established, and many of them dedicated to MPAs. In recent years, some

CTFs have been established to support financing regional networks in MPAs with some success. These experiences inspired the creation of a trust fund dedicated to the funding of Mediterranean Marine Protected Areas, which was officially announced by HSH Prince Albert II of Monaco and the French Minister of Ecology, Sustainable Development and Energy, with the support of the Tunisian Government, during the high-level political event held at the end of the IMPAC3 Congress in Ajaccio on 26 October 2013³³.

The fund aims to develop and strengthen Mediterranean marine protected areas for a more sustainable management. It would also contribute to the achievement of the Barcelona Convention and the Convention on Biological Diversity's objectives, through the mobilization of additional financing.

Previous CTFs, including the regional MPA trust funds, have had mixed successes and yielded a number of lessons learned that are important to understand. Moving forward, the establishment of the Mediterranean MPA trust fund can benefit from the reviews, lessons learned and factors of success from previous CTF experiences recently identified and documented by the Conservation Finance Alliance³⁴ and the International Institute for Environment and Development³⁵, particularly with regard to the assessment of suitability and feasibility of the CTF in the participating countries.

Box 9. A trust fund for Mediterranean MPAs

A regional approach and national support for local beneficiaries

The trust fund is intended to operate throughout the Mediterranean ecoregion, particularly in the southern and eastern shores. It will mainly focus its actions on countries that have:

- Expressed their political support to this regional project. This support is critical with respect to donors ;
- Designated a focal point to represent them in this initiative ;
- Confirmed their engagement to pursue an ambitious and decisive policy and to mobilize resources for MPAs ;
- Identified MPAs corresponding to the fund's priorities for intervention.

The fund will provide long-term financial support to MPAs designated by the participating countries.

Partners involved

The Principality of Monaco and the Prince Albert II of Monaco Foundation have committed to contributing financially to the creation of the fund. The French Global Environment Facility (FFEM) and the French Agency for Development (AFD) support this initiative and are considering modalities of their contribution.

The Global Environment Facility (the GEF) has given its political support to the fund and has already offered its technical assistance. Encouraging preliminary contacts have been made with the Union for the Mediterranean (UfM), the European Union, the KfW, the World Bank, but also with private donors, companies and foundations.

Source: A trust Fund for Mediterranean MPAs – Brochure, March 2015.

⁽³⁰⁾ Spergel, B., and Taieb, P. 2008. Working Group on Environmental Funds rapid review of Conservation Trust. Second Edition. CFA, Washington, D.C.

⁽³¹⁾ CFA. 2013. Comparative advantages of Conservation Trust Funds and Project Approach to support Protected Areas. retrieved June 11, 2014, from <http://conservationfinance.org/upload/library/arquivo20131212034735.pdf>

⁽³²⁾ GEF. 1998. GEF Evaluation of Experience with Conservation Trust Funds. Global Environmental Fund, Washington D.C.

⁽³³⁾ <http://www.medpan.org/en/news/-/blogs/a-trust-fund-for-mediterranean-mpas>

⁽³⁴⁾ CFA, 2013. Comparative advantages of Conservation Trust Funds and Project Approach to support Protected Areas. retrieved January 11, 2014, from <http://conservationfinance.org/upload/library/arquivo20131212034735.pdf>.

⁽³⁵⁾ Annabelle Bladon, Essam Yassin Mohammed, and E. J. Milner-Gulland. 2014. A Review of Conservation Trust Funds for Sustainable Marine Resources Management: Conditions for Success. IIED Working Paper. IIED, London.

Future Directions:

Achieving long-term financial sustainability requires decision makers and MPA managers to adopt an entrepreneurial approach to managing MPAs and move beyond conventional fundraising and reliance on development aid assistance. The Mediterranean can benefit from a growing body of literature on sustainable financing for MPAs, including innovative financial modelling tools. However, not all are equally and directly applicable and **a careful analysis of local, social, institutional and legal setting is needed when considering application of any financing tool.**

There are a number of important considerations and lessons learned at the global level that need to be taken by Mediterranean countries to address financial sustainability:

- **Funding is only as sustainable and effective as the management system it supports:**
Securing sustainable financing should not be an end in itself. Ultimately it is the effectiveness of MPA management that determines how biodiversity is conserved, and if the MPAs are financially sustainable. The quantity or nature of funding is often less important than how these funds are administered.
- **Building capacity for financial and business planning:**
Many MPA managers and administrators lack capacity for financial planning, marketing skills and diversification of funding sources. MPA decision makers, planners and managers, must invest in creating the necessary awareness, infrastructure and information base to ensure that existing funding for MPAs is maintained, opportunities to increase funding from new sources are seized, and that policies governing resource use in other sectors of the economy do not inadvertently undermine the prospects for PAs.
- **Designing and revising supportive policy frameworks:**
A close review of the legal framework that guides MPA development may reveal gaps or, worse yet, policies and programmes that does not allow for the establishment of funding streams such as the inclusion of provisions for MPA authorities to set fees, retain revenues or determine new market and conservation based revenue sources. In some cases, the legal framework may need a broader revision to identify potential conflicts or disincentives, for example, with certain types of fisheries subsidies or development schemes that can cause environmental degradation, leading to increased MPA management costs and negatively impacting local stakeholders.
- **Shifting the paradigm of conservation for development:**
A fundamental constraint in the Mediterranean is the low awareness, among both conservation and development decision makers, of the role that MPAs can play in supporting sustainable development and poverty reduction. In addition to efforts to secure more funding from alternative sources, stronger arguments are still needed to convince public donors nationally and internationally. International financial assistance for biodiversity conservation has become increasingly driven by social and economic objectives, and especially by its perceived ability to contribute to poverty reduction. A key driver for securing public funds for MPAs in the future will be the ability of PA planners and managers to justify their funding requests in terms of socio-economic objectives.
- **Factoring MPA concerns into the design of fiscal systems:**
Providing positive incentives and funding, as well as removing disincentives requires greater awareness among conservation and development decision makers on the economic contribution of MPAs and the role of incentives in supporting or undermining conservation activities. There is a need to consider more broadly the social costs of PAs and to factor these costs into conservation budgets. Many PAs impose significant indirect and opportunity costs on neighbouring communities and yet funding to cover these costs is rarely an element in MPA budgets.
- **Increased participation of communities and private sector in MPA management:**
Countries should seize opportunities to mobilize external groups (notably the private sector and NGOs) to share the costs and responsibility of managing MPAs and/or of providing MPA services, through shared or delegated management arrangements. More efforts need to be made in the Mediterranean to develop and sustain such arrangements over the long term.
- **Consideration of sustainable financing should be done at the MPA and system level:**
It is important for each MPA to consider financial sustainability and develop a business plan that accompanies the management plan. However, raising funds for some MPAs can be more difficult than for others, particularly for MPAs that provide few ecosystem service and market potentials. Considering how to fund the MPA system as a whole becomes important as some MPAs that can have excess resources could contribute to funding of other MPAs in the system.

Box 10. Financial sustainability

Financial sustainability can be defined as the ability to secure sufficient, stable and long-term financial resources, and to allocate them in a timely manner and in an appropriate form, to cover the full costs of MPAs and to ensure that MPAs are managed effectively and efficiently with respect to conservation and other objectives. Increasing funding sources for MPAs is necessary, but not sufficient on its own. Financial sustainability will also require general reinforcement of MPA management capacity, in particular to:

- become more responsive to changing opportunities and external demands ;
- strengthen institutional capacity to use financial and business planning tools ;
- establish more supportive economic policy and market conditions ;
- involve a wider range of stakeholders in PA management.

Source: Emerton, L., Bishop, J. and L. Thomas. 2006. Sustainable Financing of Protected Areas: A global review of challenges and options. IUCN, Gland, Switzerland and Cambridge, UK. x + 97pp.



6. LOOKING FORWARD

The MedMPAnet project has contributed significantly to improving MPA establishment and management in the Mediterranean by providing direct support to key countries and addressing capacity needs on important and innovative issues concerning MPAs. Perhaps the most important progress noted was in the adoption of more participatory approaches in the establishment of MPAs, the commencement of considerations of socio-economic settings and the initiation of an agenda on sustainable finance.

Since the project started new and important elements have been adopted internationally and regionally that provide critical new directions for the course of MPAs in the Mediterranean region.

The CBD strategic plan 2011-2020 and Aichi Targets introduce a need for greater attention to the development of conservation measures close to areas where reliance on marine ecosystem services is high. This has profound implications on prioritization efforts that now must balance areas of importance of biodiversity and ecosystem services and the potential social and economic benefits of protected areas. Both Target 11 and the other associated Aichi Targets don't consider MPAs in a vacuum and clearly point to the need to place them in a wider framework of conservation approaches.

The 2030 Agenda for Sustainable Development and the Sustainable Development Goals recently adopted by the United Nation General Assembly include a specific goal on Ocean, Goal 14, which aims to “Conserve and sustainably use the oceans, seas and marine resources *for sustainable development*”, with a specific target that recalls the Aichi Target 11. This also strengthens the trend of conserving biodiversity as a contribution to development objectives, in particular ending poverty and prosperity to all human beings in harmony with nature which are the overarching aims of the sustainable development agenda.

These directions are also reflected in the **Roadmap for a Comprehensive Coherent Network of Well-Managed MPAs to achieve Aichi Target 11 in the Mediterranean** that was endorsed by the meeting of MAP focal points in October 2015 and is proposed for adoption by the Contracting Parties to the Barcelona Convention during their COP 19 (February, 2016). Indeed, the Roadmap sets four clear objectives that reflect the recent international developments and establish clear lines of priorities that are interlinked to achieving the global targets:

- i) Strengthening systems of protected areas at national and Mediterranean levels ;

- ii) improving effective and equitable management of Mediterranean MPAs ;
- iii) sharing of environmental and socio-economic benefits of Mediterranean MPAs, their integration into the broader context of sustainable use and marine spatial planning ;
- iv) enhancing their financial sustainability.

Looking ahead to the next few years, there are important new directions that decision makers, managers and organizations active in the MPA agenda need to consider and adopt:

Coverage and management effectiveness are not mutually reinforcing objectives

The aim of the project was primarily to support the creation of new MPAs and to contribute to increasing MPA coverage in the region and reaching the 10 % target. However, most MPA agencies consulted have raised the issue of management capacity and that increasing MPA coverage and enhancing management effectiveness are not necessarily converging and mutually-reinforcing objectives. The majority of MPAs in the Mediterranean are not effectively managed, and creating new areas should not be done at the expense of the progress already done. This is a dilemma that is faced by most countries, and that cannot be resolved at the expense of management effectiveness. Because area coverage is far easier to measure than management effectiveness and because funding agencies often favour quantitative over qualitative measurements of impact, and also because project managers are under pressure to deliver measured results, there is a danger that too much attention will be given to the expansion of coverage, to the detriment of management effectiveness. **Mediterranean countries and agencies may need to define their priorities and strategies very carefully, because a simplistic pursuit of simple MPA coverage targets is unlikely to help these efforts, and could even undermine the progress realised so far.**

Moving from isolated MPAs to MPA Systems or Networks

When individual MPA effectiveness is addressed, there is a critical need to scale up to “networks” of MPAs or to develop MPA systems whereby connectivity of MPAs is considered in planning and implementation. Currently, considerations of MPA networks are still minimal in the Mediterranean. Globally, science and experiences in various regions continue to provide strong evidence of the importance of biological connectivity and of ecological

conditions, which can also confer resilience in the face of climate change and natural disasters. **With the foundation of individually well designed and managed MPAs, the development of effective MPA networks can be planned from the outset and should be considered as an increasingly important priority in the Mediterranean.**

Progress on the MPA target requires a broader vision

Successful and sustainable marine spatial management depends on nesting MPAs within broader management settings that should aim both at maintaining biodiversity and enabling socio-economic development. As discussed in section 3, many of the stakeholders concerns are not directly related to MPAs but to conflicts with other maritime activities such as aquaculture, which management are often not within the mandate of the MPA agencies.

Sustained political will, increased human and financial capacity and improved governance and engagement with marine stakeholders are all key points that need to be secured moving forward to ensure the effective management of the MPAs. Perhaps even more critical still is to ensure that conservation efforts within the MPA are not undermined by conflicting policies and practices in surrounding areas. To secure the investments made in MPAs in the Mediterranean, increase their effectiveness and to effectively address stressors beyond their boundaries and mandate, **the conservation community has to accelerate efforts to mainstream MPAs and conservation tools into higher-order management frameworks that ensure that coasts and marine spaces are managed to meet current and future demands.** Efforts are needed to apply and test multi-objective spatial management schemes that proactively plan for multiple human uses and their cumulative and interactive effects with the potential to facilitate scaling up marine management by helping to assess overall ecosystem status, evaluate and address cumulative impacts on the ecosystems, reconcile elements that may at first seem incompatible with protecting marine biodiversity, identify trade-off options where needed and guide management actions.

Addressing Climate Change

Climate change is already affecting the Mediterranean Sea in many different ways and the scale and extent may accelerate and intensify in the future. By protecting important habitats and ecosystem functions, MPAs can provide the foundation for ecosystem-based mitigation and adaptation

strategies. **Important changes and further investments need to be made to adjust the design and management of MPAs so they are resilient to climate change impacts and also to enable them to contribute to reducing societal vulnerability in a changing world.** The Mediterranean can particularly learn from experiences in tropical regions to effectively communicate, create understanding and generate action for increased ecosystem resilience, through improved design, establishment and management of MPA networks.

Coordination among actors in countries is extremely useful

The project experience adds to other experiences by the Barcelona Convention and partners such as MedPAN, WWF MedPO, IUCN-Med and Conservatoire du littoral (CdI) that efforts to create spaces for dialogue, consultation and coordination between Mediterranean members are extremely useful. There are many benefits to be gained from **establishing an expert advisory group composed by governmental, civil society and individual experts involved in MPAs to discuss and guide future priorities of action in the region.** Such group should provide guidance to the Contracting Parties to the Barcelona Convention in addressing the challenges of the implementation of the provisions of the Barcelona Convention and its SPA/BD Protocol with regards to MPAs as well as on the implementation of the Aichi Target 11.

*The efforts for extending MPAs in the Mediterranean may not achieve their conservation potential without significant improvements to management effectiveness, governance arrangements, and increased attention to local development. Enhanced MPA governance and management processes could build trust and ameliorate relationships with local communities and might lead to improved conservation outcomes through engendering support and compliance. In addition, improving conservation outcomes will require that the broader array of issues, and their root causes are taken into account and that management actions are coordinated between various agencies with mandate in the coastal and marine zone. Improving socio-economic development processes and outcomes will require partnerships with new organizations beyond the conservation sphere that are better equipped to and experienced in addressing development issues. **All these actions require decision makers, managers and partner organizations to cast a much broader net and open to novel approaches that include local communities and private sector more fully in MPAs management and related initiatives.***



**Regional Activity Centre
for Specially Protected Areas (RAC/SPA)**

Boulevard du Leader Yasser Arafat
B.P. 337 - 1080 Tunis Cedex - TUNISIA
Tel. : +216 71 206 649 / 485 / 765
Fax : +216 71 206 490
e-mail : car-asp@rac-spa.org
www.rac-spa.org