

CAPITALISATION

ON RESULTS OF PROJECTS CARRIED OUT IN MEDITERRANEAN MPAs
WITHIN THE 2014-2016 CALL FOR SMALL PROJECTS PROGRAMME



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PARTIE 1

Call for Small Projects' context and objectives

The MedPAN network

The MedPAN association, the network of Marine Protected Areas (MPAs) managers in the Mediterranean, aims to “promote, through a partnership approach, the sustainability and operation of a network of Marine Protected Areas in the Mediterranean which is ecologically representative, connected and effectively managed to help reduce the current rate of marine biodiversity loss”. It consists of over 100 members or partners from 19 countries (out of the 22 Mediterranean countries). MedPAN’s three main strategic axes for the 2013-2017 timeframe are:

1. To be a network for knowledge, information, anticipation and synthesis
2. Develop the life of the network, the exchanges between its members and their capacity to effectively manage their MPAs in collaboration with the territory’s other players.
3. Reinforce the network’s sustainability, visibility, governance and resources.

Call for Small Projets (CSP)

In 2011, MedPAN set up a scheme to help small, concrete projects to pilot and carry out innovative actions which can give support to managers in their mission to manage and develop sustainable economic activities. These projects can be replicated in other MPAs as well as help develop useful tools for them.

Since 2011, 5 annual Calls for Small Projects (CSP) have been launched, and 30 projects have been given support in 12 Mediterranean countries.

2011-2013: 3 CSP

Three CSPs were launched between 2011 and 2013, with 17 projects being funded on 5 main themes:

- Sustainable tourism management,
- Reinforcing ecological monitoring,
- Communication and educational actions on the environment,
- Sustainable fisheries management,
- Consultation and mediation with stakeholders.

In 2014, these projects were evaluated (see box below) and a capitalization report was written. This report concluded that these small projects were beneficial and effective and recommended continuing them whilst trying to improve certain areas: reducing administrative costs, creating synergies or reducing the scale in order to reinforce the network’s added value.

2014-2015: 2 CSPs

MedPAN launched a second phase of CSP in 2014-2016, with an initial call in April 2014 and the second in February 2015.

Three donors contributed funds: the French Fund for the Global Environment (FFEM), the MAVA Foundation and the Prince Albert II of Monaco Foundation.

Synthesis of the capitalisation report's main results and recommendations for the 2011-2013 CSP

Small projects are effective tools for carrying out concrete actions in MPAs to protect the marine environment:

- Flexible and easily accessible funding, with rules corresponding to MPAs needs.
- Significant potential for an added value to the Mediterranean MPA network, which can be improved upon in future CSPs, by particularly encouraging more exchanges between MPAs.
- Maintaining, facilitating the MPA and encouraging local initiatives in reinforcing the protected area, even those in difficult areas (conflict zones, lack of political support for MPAs, pending MPAs, etc.).

Managing this scheme has been **relatively expensive**. For several reasons: small grants, projects carried out in many different countries, long selection process due to the large number of candidates, etc.

Recommendations

The improvements suggested mainly lie in **reducing certain administrative costs** (both on a MedPAN and project level) and **creating synergies or reduce the scale** of projects on similar themes in order to further reinforce the network's added value.

Pointers to **reduce the scheme's management costs, thus benefitting the projects themselves:**

- encourage bigger projects which involve several MPAs to create a synergy effect and reduce scale;
- simplify certain procedures, improve the application and follow-up/evaluation forms in order to reduce the time required to deal with information;
- not systematically visit projects during their final evaluation stage.

Among the **projects** given support, several are **outstanding especially for their relevance on a Mediterranean level and therefore should be highlighted on a MPA network level:**

- the **Snorkeling monitoring methodology guide to monitor the marine environment** produced by the CEN-PACA in France;
- the tool developed by the Scandola marine reserve and Barcelona Sea's Centre (CSIC) called "T-MEDNET" to **gather long series of temperature data**;
- work carried out on **sustainable recreational fishing practices** in Turkey by the SAD association, in partnership with the Kas-Kekova MPA;
- the study on the **economic valorisation of Posidonia meadows** via a blue carbon type measure, led at the Katic site in Montenegro, within the MedCEM project framework;
- Finally, **the MPA network facilitator tool** developed by the sub-regional network, AdriaPAN.

It is recommended **to capitalise on what has been done in these projects and highlight it**, which "directly links to MedPAN's 2013-2017 strategy, as its axis 1 (Being a network for knowledge, information, anticipation and synthesis) aims to capitalise on and improve the methods and practices used in ecological monitoring". Some of this groundwork could serve as **"a foundation for similar measures in other countries"**.

2014 and 2015 objectives

By supporting small projects implemented by MPA management bodies and their partners, MedPAN aims to achieve the following objectives:

- Implement field projects in an Integrated Coastal Zone Management (ICZM) context,
- Sustainable development of socio-economic activities carried out in MPAs,
- Bring skills and/or resources to reinforce Mediterranean MPAs management from an ICZM perspective,
- Develop sustainable financing mechanisms for MPAs,
- Promote actions carried out in several MPAs, exchanges between MPA managers and/or establishing a link with neighbouring MPAs in the interest of inter-connectivity, synergy or scale reduction.

| CSP | Launch Date | Number of eligible countries | Number of proposals received | Number of projects selected | Number of countries (inc EU) |
|--------------|---------------|------------------------------|------------------------------|-----------------------------|------------------------------|
| 2014 | April 2014 | 22 | 56 | 9 | 8 (4) |
| 2015 | February 2015 | 12 | 20 | 4 | 4 |
| Total | | 22 | 76 | 13 | 12 (4) |

Table 1
Nombre de propositions reçues/retenues et pays concernés

Eligible countries

In 2014, the CSP was proposed to 22 countries, including 8 European Union countries; the 2015 CSP only applied to countries outside the European Union (12 eligible countries).

CSP 2014: Spain, France, Italy, Slovenia, Croatia, Greece, Cyprus, Malta (EU) and Turkey, Syria, Lebanon, Israel, Palestinian Territories, Egypt, Libya, Tunisia, Algeria, Morocco, Monaco, Bosnia and Herzegovina, Montenegro and Albania.

APP 2015: Turkey, Syria, Lebanon, Palestinian Territories, Egypt, Libya, Tunisia, Algeria, Morocco, Bosnia and Herzegovina, Montenegro and Albania.

Targets

While the 2011-2013 CSPs were specifically aimed at MPA managers that were either MedPAN¹ members or its partners, the 2014-2015 CSPs were opened for the first time to managers' collaborators, so that all MPAs could participate. Thus the CSPs were split in two, aimed at 2 distinct target types:

- **Part A (CSP A)** was for projects implemented by **MPA managers** or **organisations responsible or involved in MPA management**. These organisations had to be MedPAN members or partner or become member or partner prior to the project's implementation;
- **Part B (CSP B)** was for actions developed by **organisations that collaborate with MPA managers** who are MedPAN members or partners (NGOs, private companies, institutions, scientists etc.). To be eligible, these structures had to fulfil three criteria:
 - › Have previously collaborated with the MPA's managing body;
 - › Enclose in their application, a letter of support from the MPA's management body;
 - › Justify in the proposal that action of the project will have added value for the MPA.

Either way, MedPAN's Board of Directors, Scientific Committee, or Advisory Committee's members were not eligible and could not be consultants in the selected small projects.

¹ The States, through ministerial departments, public establishments or territorial communities which manage MPAs; NGOs and research bodies involved in MPAs management

The themes

For each of these themes, a table in the call for small projects' regulations gives fairly precise details with examples of eligible activities.

Within the CSP A, projects had to include as many concrete actions as possible; studies had to be limited and lead to management actions.

Expertise missions from one MPA to another, exchanges of experience or training were encouraged, as well as replicating or adapting successful experiences in other MPAs.

| For CSP A | For CSP B |
|--|---|
| Management planning from an ICZM perspective | |
| Innovative financial mechanisms, | |
| Sustainable tourism management | Developing sustainable tourism activities in the MPA |
| Sustainable fisheries management. | Developing sustainable fishing activities in the MPA. |

Table 2
Theme per CSP type (A or B)

Budget and funding terms

The total amount for the 2014-2016 funding period was € 380,000, of which € 165,000 came from the FFEM (43%), € 115,000 from the MAVA Foundation (30%) and € 100,000 from the Prince Albert II of Monaco Foundation (26%). With, in addition, a financial contribution of € 20,000 from MedPAN (administrative costs), bringing the total to € 400,000.

Out of these amounts,

- € 272,000 (68%) was set aside for projects,
- € 108,000 (32%) was for MedPAN's management costs, including € 20,000 for capitalisation.

According to regulations, the minimum total for a project was € 10,000.

For each project, MedPAN's maximum contribution was € 20,000. Projects had to be co-financed or self-financed with a contribution of:

- a minimum of 50% of the project's total amount if it has international co-funding (international donors, NGOs or private companies);
- a minimum of 25% of the project's total amount (i) if it is co-financed by national or local partnerships (State, contributions from local populations, NGOs, local authorities), or (ii) self-financing (valuing staff work time, providing equipment).

Projects' duration

A project's duration could not exceed 18 months (2014 CSP) or 12 months (2015 CSP). In any case, the latter had to be completed by June 30, 2016. Most projects met these deadlines, except the following that, due to delays, were granted an extension to September 30, 2016:

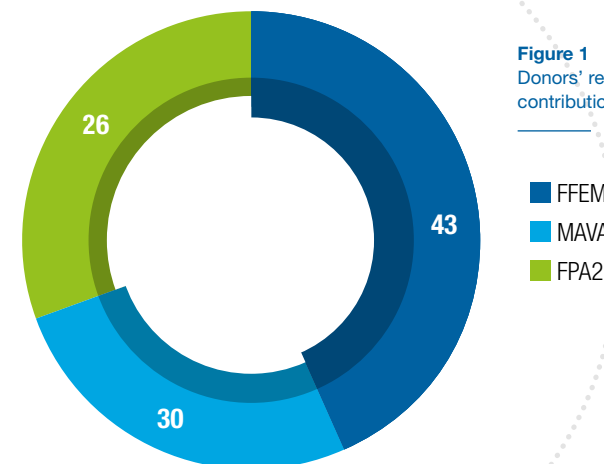


Figure 1
Donors' respective contributions

| | Total amount initially expected |
|--|---------------------------------|
| 2014 total allocated to the projects | 136,000 |
| 2015 total allocated to the projects | 136,000 |
| Total allocated to the projects | 272,000 |
| MedPAN CSP management (working time) | 74,000 |
| MedPAN CSP Follow-up (field trips) | 14,000 |
| Evaluation/Capitalisation | 20,000 |
| Administrative costs (MedPAN's contribution) | 20,000 |
| Total management/evaluation | 128,000 |
| Programme's total | 400,000 |

Table 3
Initial amounts allocated to the « small projects » programme





PART 2

Projects presentation

List of projects and their location

Out of the 2 MedPAN CSPs, 76 applications were submitted (an average of 38 projects per CSP), and 15 selected projects (20%). For the record, the previous 3 CSPs received 136 applications (thus a higher average, 45 projects per CSP¹.)

| | APP 2014 | APP2015 |
|--------------------------------------|--|---|
| Launch date | April 2014 | February 2015 |
| Eligible countries | Spain, France, Italy, Slovenia, Croatia, Greece, Cyprus, Malta, Turkey, Syria, Lebanon, Israel, Palestinian Territories, Egypt, Libya, Tunisia, Algeria, Morocco, Monaco, Bosnia and Herzegovina, Montenegro and Albania | The CSP was only for non-EU countries. Eligible countries: Turkey, Syria, Lebanon, Palestinian Territories, Egypt, Libya, Tunisia, Algeria, Morocco, Bosnia and Herzegovina, Montenegro and Albania |
| Number of proposals submitted | 56 proposals were submitted from 12 different countries: 29 for CSP A (managers) and 27 for CSP B (collaborators) | 20 proposals from 7 countries (Albania, Algeria, Bosnia and Herzegovina, Lebanon, Morocco, Tunisia, Turkey) (including 6 for CSP A (managers) and 14 for CSP B (collaborators)) |
| Dismissals/ Rejections | 8 were dismissed because of their ineligibility: subject not eligible; a non-member holder or MedPAN partner; not a MPA manager in the case of CSP A; a SC member; no local support letter | 9 projects were not eligible (subject not eligible, no letter of support or co-funding). Among the remaining proposals, some were rejected due to the lack of precise information on the projects or justified interest |
| Selected | 11 projects were selected from the remaining 48 (23%), with scores ranging from 47 to 90 points out of 100 (2 were eliminated later ²); 9 projects were implemented: <ul style="list-style-type: none"> • 7 projects for the CSP A (Turkey, Lebanon, Montenegro, Algeria, France, Italy, Slovenia), • 2 for CSP B (Italy, Spain) | 4 were selected with scores ranging from 63 to 84 points out of 100: <ul style="list-style-type: none"> • 2 for CSP A (Lebanon, Turkey) • 2 for CSP B (Albania, Tunisia) |

Table 5
CSP submissions

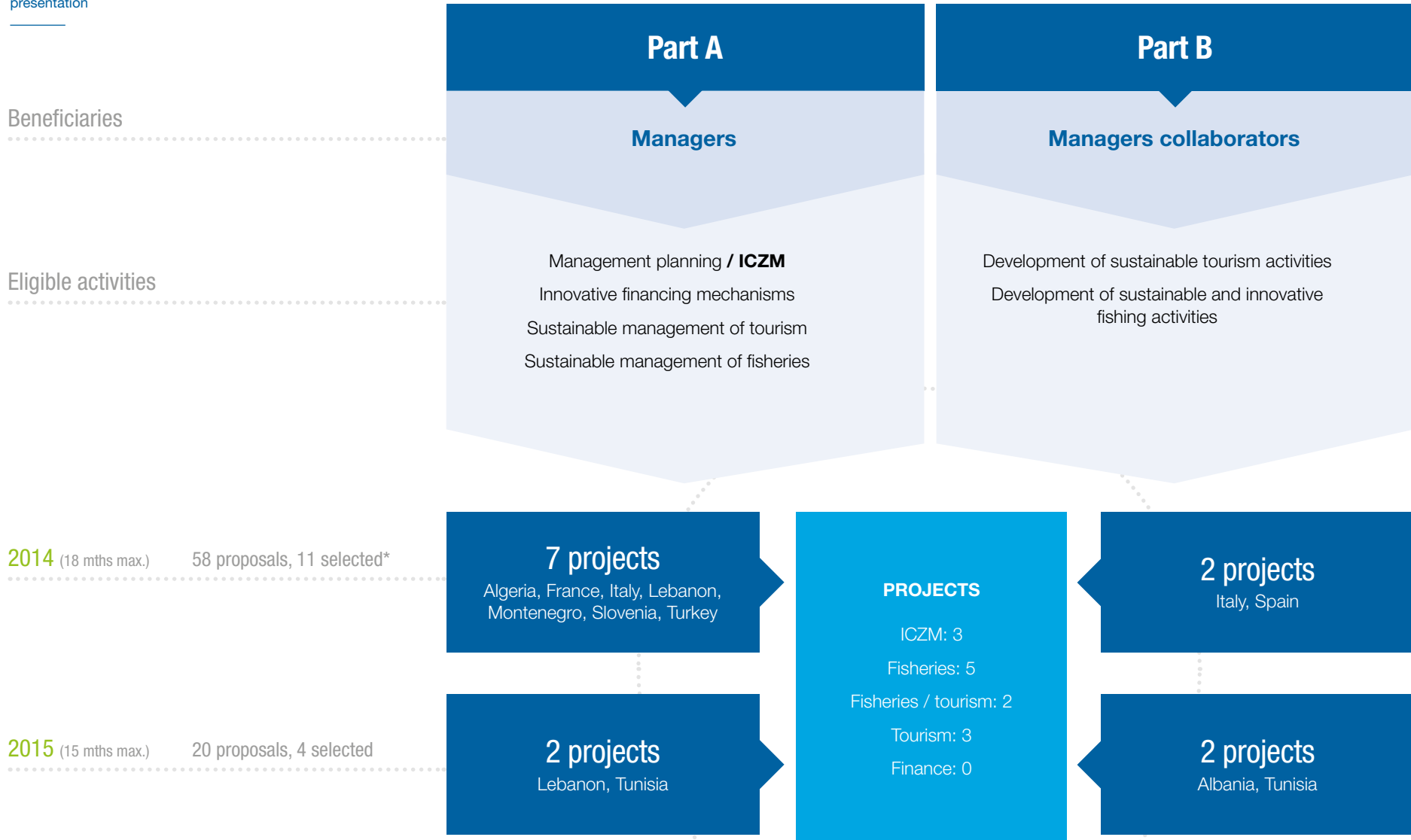
¹ But we must remember that the 2015 CSP was only open to non-European countries, unlike the other CSPs, so less proposals submitted.

² Cancelled projects:

- Taza National Park (Algeria): due to no reply or communication from the project holder, the agreement was not signed;
- Cap Roux fisheries cantonment: project cancelled at the project leader's request, due to partner fishers withdrawing following changes on an industrial tribunal jurisdiction level.

Call for Small Projects 2014 and 2015

Figure 2
Calls for small projects
presentation



* Including 2 that were eliminated later on



Figure 3
Selected projects' location

| | % projects submitted | | % projects selected | |
|----------------|----------------------|----------|---------------------|----------|
| | CSP11-13 | CSP14-15 | CSP11-13 | CSP14-15 |
| EU country | 60 | 53 | 35 | 38 |
| Non-EU country | 40 | 47 | 65 | 62 |

Table 6

Percentage (per total) of projects submitted and selected between European Union and non-EU countries (note: Croatia, EU member since 2013 has therefore changed status between the 2 CSPs); and percentage of projects selected in relation to the number of projects submitted in the 2 EU/non-EU CSPs)

| N° | Country | MPA | Creation date | Management plan | Beneficiary | Project name | CSP | |
|----|-------------------|---|--------------------|--------------------------|---|---|------|---|
| 1 | Algeria | Gouraya NP (future MPA) | Not created as yet | no | Gouraya NP | Develop sustainable fisheries management | 2014 | A |
| 2 | France | Pelagos Sanctuary | 2002 | yes | Souffleurs d'Ecume | Launch « High Quality Whale-watching » Certification | 2014 | A |
| 3 | Italy | Gaiola Underwater Park | 2002 | no | Gaiola Interdisciplinary Study Centre | Territorial analysis for the integrated management of the Posillipo coastline | 2014 | A |
| 4 | Lebanon | Palm Islands NR | 1992 | yes (previous one) | Palm Islands NR Committee | Legal and technical support to develop ecotourism | 2014 | A |
| 5 | Montenegro | Ratac, Katic, Platamuni, Stari Ulcinj (future MPAs) | Not created as yet | no (except for Katic) | Mediterranean Center for Environmental Monitoring (MedCEM) | Website - Montenegrin Marine and Coastal Protected Areas Database | 2014 | A |
| 6 | Slovenia | Strunjan NR | 1990 | no (awaiting validation) | Public Institute Landscape Park Strunjan | Sustainable management of artisanal fisheries | 2014 | A |
| 7 | Turkey | Gökova Bay | 1988 | no (creation decree) | Mediterranean Conservation Society | Supporting sustainable fishing activities | 2014 | A |
| 8 | Spain | Cap de Creus Natural Park, Montgrí Natural Park, Iles Medes, Baix Ter | 1998 2010 | yes | University of Gerona | Tackling major impacts of recreational fishing | 2014 | B |
| 9 | Italy | Bergeggi Island | 2007 | yes | Ricerca Sviluppo Tecnologie Appropriate (R.S.T.A. srl) | MPA smartphone application | 2014 | B |
| 10 | Lebanon | Tyre Coast NR | 1998 | yes | Tyre Coast NR | Develop and sustain underwater trails | 2015 | A |
| 11 | Turkey | Gökova Bay | 1988 | no (creation decree) | Mediterranean Conservation Society | On the Grouper's track | 2015 | A |
| 12 | Albania | Karaburuni-Sazani National Marine Park | 2010 | yes | Royal Albania Foundation | Developing co-management approaches for sustainable fisheries | 2015 | B |
| 13 | Tunisia | Cap Negro/Cap Serrat MCPA | Not created as yet | no | Tunisian Association for the Development of Artisanal Fisheries | Sustainable fishing tourism | 2015 | B |

Table 4
An inventory of each project and its characteristics

 PA/MPA manager

 Association (scientific)

 Association (socio-professional)

 Scientific Organisation

 Private

| CSP 2014-2015 | No. of member organisations or MedPAN partners | No. of Mediterranean MPAs* | No. projects submitted | % | No. of projects selected | CSP 11- 13 No. of projets selected | Total projects financed, all CSPs combined |
|-----------------------|--|----------------------------|------------------------|----|--------------------------|------------------------------------|--|
| EU Country | | | 40 (53%) | | 5 (38%) | 10 | 15 |
| Italy | 25 | 45 | 15 | 20 | 2 | 2 | 4 |
| Spain | 9 | 50 | 9 | 12 | 1 | 2 | 3 |
| France | 15 | 27 | 8 | 11 | 1 | 2 | 3 |
| Croatia | 11 | 18 | 3 | 4 | 0 | 4 | 4 |
| Greece | 6 | 11 | 3 | 4 | 0 | 0 | 0 |
| Slovenia | 3 | 5 | 1 | 1 | 1 | 0 | 1 |
| Malta | 1 | 5 | 1 | 1 | 0 | 0 | 0 |
| Cyprus | 1 | 2 | 0 | 0 | 0 | 0 | 0 |
| Non-EU Country | | | 36 (47%) | | 8 (62%) | 7 | 15 |
| Albania | 5 | 10 | 8 | 11 | 1 | 0 | 1 |
| Algeria | 6 | 3 | 9 | 12 | 1 | 2 | 3 |
| Turkey | 4 | 15 | 6 | 8 | 2 | 1 | 3 |
| Tunisia | 2 | 6 | 5 | 7 | 1 | 1 | 2 |
| Lebanon | 3 | 4 | 2 | 3 | 2 | 1 | 3 |
| Egypt | 1 | 5 | 2 | 3 | 0 | 0 | 0 |
| Montenegro | 2 | 1 | 1 | 1 | 1 | 1 | 2 |
| Bosnia | 0 | 0 | 1 | 1 | 0 | 0 | 0 |
| Israel | 2 | 10 | 1 | 1 | 0 | 0 | 0 |
| Morocco | 3 | 2 | 1 | 1 | 0 | 1 | 1 |
| Monaco | 2 | 4 | 0 | 0 | 0 | 0 | 0 |
| Syria | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| Palestinian T. | 0 | | 0 | 0 | 0 | 0 | 0 |
| Libya | 0 | 2 | 0 | 0 | 0 | 0 | 0 |
| Total | 101 | 226 | 76 | | 13 | 17 | 30 |

Table 5

Number of projects submitted / selected per country (top: EU member countries)

Source: Mapamed database and includes the following categories: national designations, Bonifacio International Marine Park, Pelagos and SPAMI

Project leaders

Out of the 13 projects selected in 2014 and 2015:

- **4 were submitted by PA/MPA managers:** Gouraya National Park in Algeria (a land park with a project to expand to the coastal area); Palm Islands NR Committee and Tyre Coast Nature Reserve, Lebanon; Public Institute of Landscape Park Strunjan in Slovenia;
- **7 by associations, of which 5 by scientific based associations:** Souffleurs d'Ecume in France; Gaiola Interdisciplinary Study Centre in Italy; MedCEM in Montenegro, MedCON in Turkey (with 2 different projects), Royal Albania Foundation (RAF) in Albania (CSP B)
- and one a socio-professional one (Tunisian Association for the Development of Artisanal Fisheries (ATDEPA) in Tunisia - CSP B);
- **1 scientific body:** University of Gerona, Spain;
- **1 private company:** Ricerca Sviluppo Tecnologie Appropriate (RSTA) in Italy.

Out of the 4 CSP B projects, some leaders were very close to the MPA (Spain, Italy); in Albania, the managing body was invited to the meetings organised during the project; in Tunisia, the Coastal Development Protection Agency was informed of the project and collaborated with the project leader to implement complementary actions.

Table 7
Distribution of projects (all combined types) per theme

Projects' thematic distribution

The 76 projects submitted were 50% under the "tourism" theme, 25% under the "fishing" theme, and the other ones fell under the 4 other themes

Among the 13 projects selected:

- 5 are on fishing;
- 2 projects relate to both tourism and fishing;
- 3 are linked to tourism;
- 3 are under the 'integrated coastal zone management' category;
- no project fell under the innovative funding theme, however Lebanon's Palm Islands eco-tourism project aims to reinforce the reserve's financial resources. One should note that a project on this theme had been cancelled: pilot test for sustainable funding schemes for Cap Roux (Cap Roux fishing cantonment, Esterel Natura 2000 zone, France).

| | Submitted | Selected |
|----------------------|-----------|-----------|
| ICZM | 10 | 3 |
| Fishing | 19 | 5 |
| Recreational Fishing | 3 | 2 |
| Tourism | 38 | 3 |
| Funding | 2 | 0 |
| Other | 4 | 0 |
| Total | 76 | 13 |

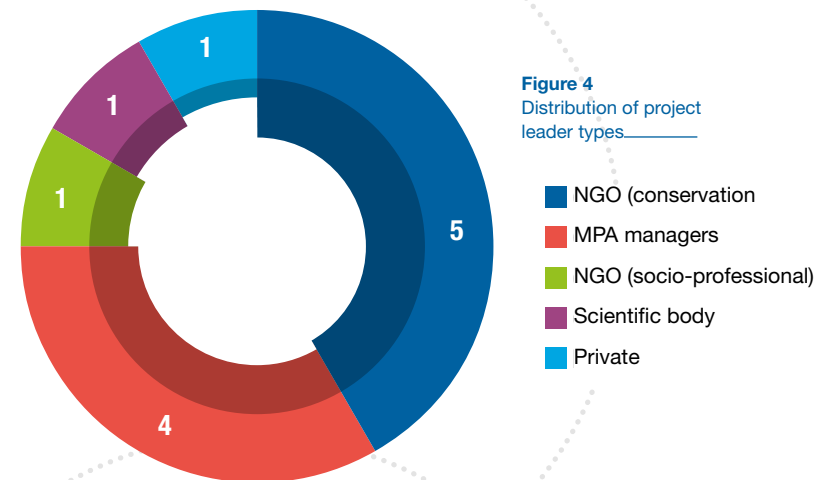


Figure 4
Distribution of project leader types

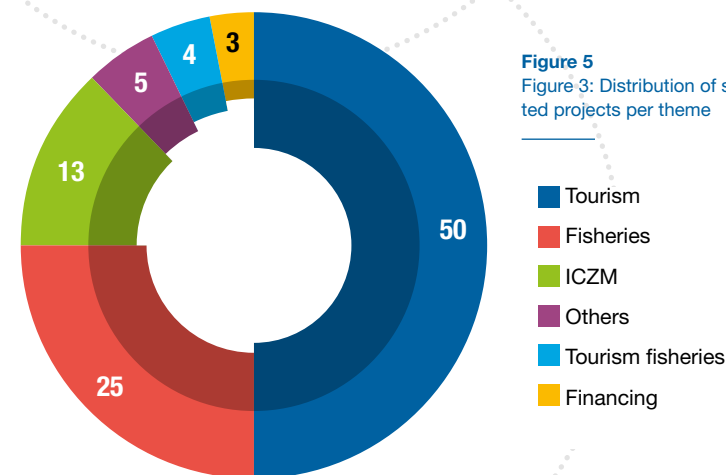


Figure 5
Distribution of submitted projects per theme

| | CSP 11-13 | CSP 14-15 |
|---|--|--|
| Developing/ Sustainable tourism management | | Pelagos Sanctuary (France) :Launch of « High Quality Whale-watching » certification Palm Islands Nature Reserve (Lebanon): Legal and technical support to develop ecotourism Cap Negro/Cap Serrat MCPA (Tunisia): Sustainable fishing tourism |
| Inc underwater trails | Taza NP (Algeria): Support for scuba diving towards a sustainable ecotourism activity Chenal de Murter (Croatia): Establishing an educational underwater trail | Tyre Coast NR (Lebanon): Develop and sustain underwater trails |
| Good practices in recreational fishing | Kas Kekova MPA (Turkey): Developing responsible recreational fishing in Turkish Marine Protected Areas: a white paper on good practices in recreational fishing; national agreement for responsible amateur fishing. | Cap de Creus and Montgrí Natural Parks, Medes Islands, Baix Ter (Spain). Tackling major impacts of recreational fishing: vulnerable species, exotic bait, loss of fishing gear: code of good practice for recreational fishing and partnerships with the private sector. |
| Sustainable fishing | Habibas Islands MR (Algeria): Involving fishers in the Reserve's sustainable management | Gouraya NP (Algeria): Implementing sustainable fisheries management Strunjan NR (Slovenia): Implementing sustainable management of artisanal fisheries Karaburun-Sazani National marine Park (Albania): Develop co-management approaches for sustainable fisheries Gökova Bay MPA (Turkey): Support sustainable fishing activities and promote invasive species Cap Negro/Cap Serrat MCPA (Tunisia): Sustainable fishing tourism |
| Fisheries' monitoring | Torre Guaceto MPA (Italy): Monitoring sustainable traditional fishing | Gökova Bay MPA (Turkey): Support sustainable fishing activities |
| Ecological monitoring | Zembra Archipel NP (Tunisia): Ecological study of the Patella ferruginea, a protected species and of particular Mediterranean interest Montgrí Natural Park, Medes Islands, Baix Ter (Spain): Monitoring the conservation status of protected species Future MPA in Katic (Montenegro): Economic benefits of sustainable development and potential value of blue carbon sinks French and Spanish MPAs (France): Developing tools to study the effects of climate change on coastal settlements Frioul Islands Marine Park (France): Snorkeling Monitoring Methodolgy Guide to monitor the marine environment | Gökova MPA (Turkey) On the track of groupers: tagging and monitoring groupers' behaviour Gaiola Underwater Park (Italy): Territorial analysis for the integrated management of the Posillipo coastline: developing different levels of knowledge and GIS |
| Sea surveillance | Maro-Cerro Gordo MPA (Spain): Sea surveillance and awareness raising | |
| Environmental education in the MPA | Palm Islands NR (Lebanon): Reinforce communication and environmental education in the Reserve Al Hoceima NP (Morocco): Consolidation of marine and coastal environmental education Brijuni National Park (Croatia): Centre for Environmental Education and Information | Palm Islands NR (Lebanon): Legal and technical support to develop ecotourism |
| Developing technical management tools | Protected areas in the AdriaPAN network (Italy): Develop a web platform networking managers Telašćica Natural Park (Croatia): Telašćica through data visualisation | Ratac, Katic, Platamuni, Stari Ulcinj (futures AMP – Monténégro): Site internet - Base de données sur les AMP AMP de Bergeggi (Italie): App The Island: application smartphone pour l'AMP pour l'information aux touristes et le suivi participatif de l'AMP |
| Other | Dugi Otok Island MPA (Croatia): Adaptive MPA management | |

Table 7
Overall view of projects by theme since the first small projects (2011-2015)

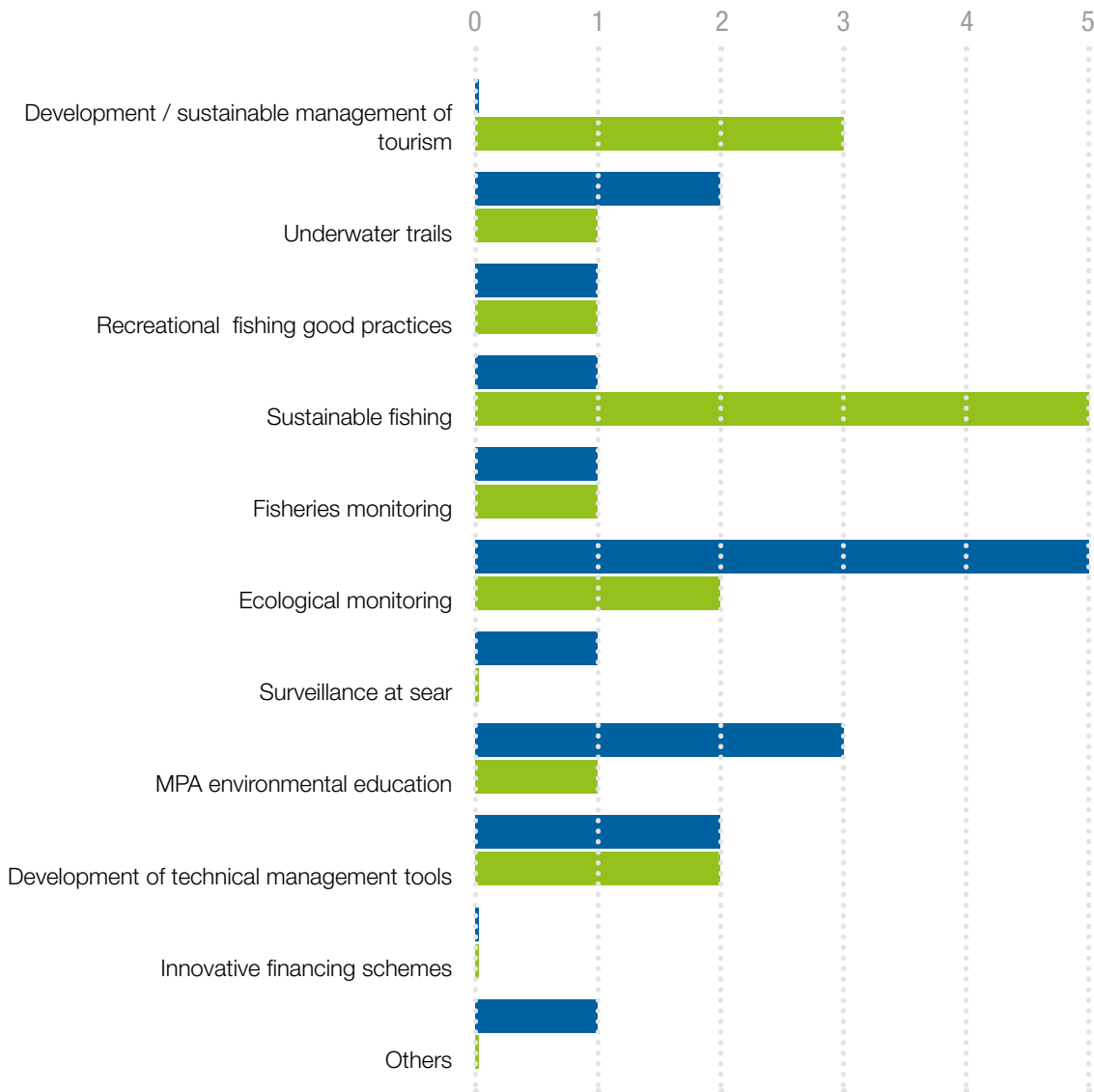


Figure 6
The themes present in the various CSPs in project numbers

■ CSP11-13
■ CSP1-16

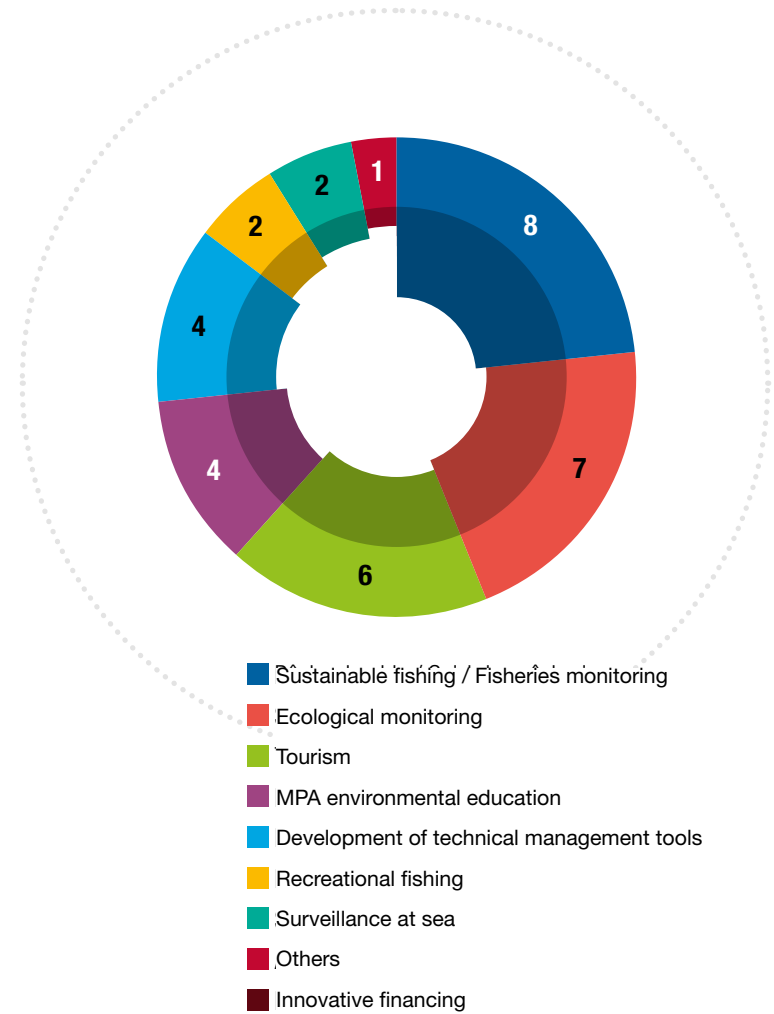


Figure 7
Total number of projects per theme (2011-2015)

Figure 8
The projects' average funding distribution

Co financing ■
Self financing ■
MedPAN ■

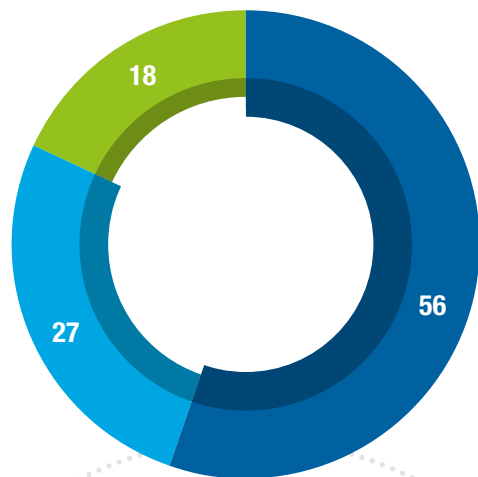
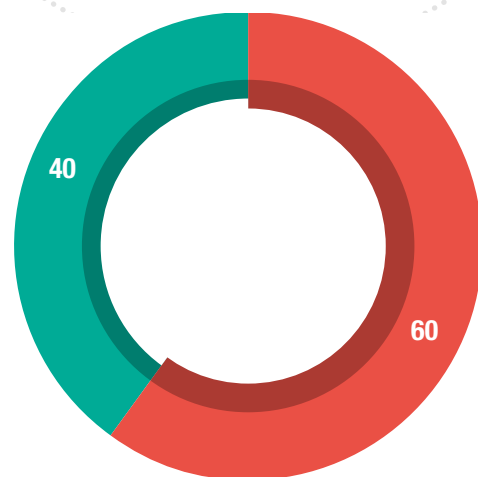


Figure 9
Distribution of project funding in non-EU and EU countries

Non-European country ■
European country ■



Budgets

Based on current knowledge (projects in Tunisia and Algeria are not yet completed), the budget data is the following:

The total amount for the projects is € 432,612, of which € 240,409 (56%) come from MedPAN funds, 27% from self-financing (€ 115,049) and 18% from co-funding (€ 77,153). Sixty percent (€ 145,000) of the amount allocated to projects went to non-European countries eligible for the FGEF¹ and 40% to projects in European countries (€ 95,409).

MedPAN's share (from €8,810 to €20,000) varies²:

- between 60 to 75% for 8 projects;
- 50 to 60% for 2 projects;
- less than 50% for 3 projects

Four projects have more than 10% of "real" co-funding (excluding "in kind" self-financing):

- *in Lebanon, the Tyre Nature Reserve's project*, with 49% co-funding from the Association for Underwater Research in Roussillon (exclusively using experts, costs associated with field missions being borne by the project); and the town council.
- *the fisheries project in Gökova MPA*, Turkey, with co-funding (43%) from Fauna and Flora International (FFI) and Travel Foundation.
- *the Pelagos Sanctuary's project in France* with co-funding (39%) from the French MPA agency and the Var general council. Tourism operators also participated through their training contribution.
- *the project in the Cap de Creus and Montgri Nature Reserves*, Medes Islands and Baix Ter, Spain, with 11% co-funding from the Catalonia Region and partner MPAs.

Every project shows self-financing ("in kind" contribution) with a percentage ranging from 24 to 60%, except for the fisheries project in Gökova, Turkey, and the Tyre Nature Reserve project, in Lebanon, where the rate is only 6% and 7% respectively. The average "in kind" contribution rate is 28%. In several cases, this self-financing rate appears to be undervalued (work time and use of the structure's resources being unaccounted for).

On average, and based on financial reports available:

- 44% of this funding was allocated to salaries (from 10 to 80% depending on the project)
- 20% to subcontracting (consultants, outsourced work ...)
- 17% to purchase equipment;
- 9% on travel
- 10% to other miscellaneous items (communication, taxes, management, etc.).

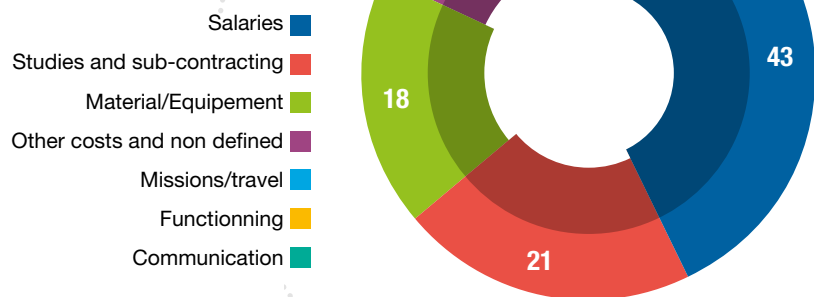
¹ Non-European countries eligible for FGEF: Turkey, Syria, Lebanon, Palestinian Territories, Egypt, Libya, Tunisia, Algeria, Morocco, Bosnia and Herzegovina, Montenegro and Albania.

² The French project (*Planète mer*), which was abandoned, has not been taken into account in the calculations below.

| | | | MedPAN | | Self-financing | | Co-financing | | Total | Co-financers |
|--------------|------------|--|----------------|-----------|----------------|-----------|---------------|-----------|----------------|---|
| | | | Amount | % | Amount | % | Amount | % | | |
| 2014 | France | Planète Mer | 4 158 | 31 | 9 254 | 69 | | 0 | 13 412 | |
| | Turkey | Mediterranean Conservation Society - MedCON | 20 000 | 51 | 2 222 | 6 | 17 100 | 43 | 39 322 | Fauna Flora International Travel Foundation |
| | Montenegro | Mediterranean Center for Environmental Monitoring - MedCEM | 17 800 | 75 | 6 001 | 5 | | 0 | 23 801 | |
| | France | Soufleurs d'écume | 20 000 | 34 | 2 267 | 4 | 36 699 | 62 | 58 966 | Agence des AMP, formation, Var department |
| | Spain | Universitat de Girona | 15 685 | 58 | 8 560 | 31 | 3 000 | 11 | 27 245 | Generalitat. de Catalunya and MPA |
| | Italy | Ricerca Sviluppo Tecnologia Appropriate - RSTA | 15 685 | 61 | 9 851 | 39 | | 0 | 5 536 | |
| | Albania | Public Institute Landscape Park Strunjan | 19 886 | 75 | 6 718 | 25 | | 0 | 26 604 | |
| | Lebanon | Palm Islands Nature Reserve Committee - PINRC | 20 000 | 74 | 7 000 | 26 | | 0 | 27 00 | |
| | Italy | Centro Studi Interdisciplinari Gaiola onlus - CSI | 19 995 | 75 | 6 665 | 25 | | 0 | 26 660 | |
| | Algeria | Parc National de Gouraya | 20 000 | 67 | 10 000 | 33 | | 0 | 30 000 | |
| 2015 | Turkey | Mediterranean Conservation Society - MedCON | 20 000 | 39 | 31 237 | 61 | | 0 | 51 237 | |
| | Tunisia | Association Tunisienne pour le Développement de la Pêche Artisanale - ARDEPA | 8 810 | 75 | 3 000 | 25 | | 0 | 11 810 | |
| | Albania | Royal Albania Foundation - RAF | 20 000 | 68 | 9 474 | 32 | | 0 | 29 474 | |
| | Lebanon | Tyre Coast Nature Reserve - TCNR | 18 390 | 44 | 2 800 | 7 | 20 354 | 49 | 41 544 | Tyre municipality, ARESMAR NGO |
| TOTAL | | | 240 409 | 56 | 115 049 | 27 | 77 153 | 18 | 432 612 | |

Table 8
Projects' budgets (revenues) and respective distribution of funding sources (Projected budgets for the unfinished projects: Algeria and Tunisia)

Figure 10
Distribution of budgets per
expenditure item



Therefore, over 60% was allocated to work time.

These figures are taken from the project leaders' financial reports. However, the items' information is not always understood in the same way by different leaders (for example, the items "communication" or "personnel" for consultancy work) and these figures increase amounts in different items.

In conclusion and with regard to forecasts,

- 236 265 € (61% of the total budget) were allocated to the projects;
- € 120,249 (36%) was allocated to MedPAN management costs, € 31,992 of which for capitalization. These management costs are similar to those of previous CSPs (which accounted for 34%). Out of the total management costs, 53% represent MedPAN's work time and 30% evaluation/capitalization/valuation; administrative costs linked to MedPAN's overall operating budget of 14% are covered by MedPAN;
- € 10,000 (3%) was used for the valuation of a product/tool resulting from one of the previous CSP's projects (the Snorkeling Monitoring Methodology Guide).

Table 9
Budget (2014 and 2015 CSPs)

| | Initial amount allocated | Amount spent | % |
|--|--------------------------|----------------|-----------|
| 2014 amount allocated to projects* | 136 000 | 173 209 | |
| 2015 amount allocated to projects | 136 000 | 67 200 | |
| Total allocated to projects ** | 272 000 | 240 409 | 61 |
| CSP management by MedPAN (work time) | 74 000 | 75 000 | |
| CSP follow-up by MedPAN (field trips) | 14 000 | 2 936 | |
| Evaluation/Capitalisation | 20 000 | 31 992 | |
| Communication and translation | | 10 000 | |
| Bank fees | | 321 | |
| Administrative costs (MedPAN contribution) | 20 000 | 20 000 | |
| Management/evaluation total | 108 000 | 140 249 | 36 |
| Valuation of MedPAN's small project | | 10 000 | 3 |
| Total amount for programme | 400 000 | 390 658 | |

Main project results

| Country | MPA | Project name | Main activities and results |
|--|---------------------------------|--|---|
| SUSTAINABLE FISHERIES MANAGEMENT (CSP A) AND DEVELOPING SUSTAINABLE FISHERIES ACTIVITIES IN THE MPA (CSP B) | | | |
| Algeria | Gouraya NP | Set up a sustainable management of the fishing activity | Identify the various interested stakeholders and awareness raising for the future marine protected area (in particular, organising two "open days" on establishing sustainable management of artisanal fisheries in the future Gouraya MPA). Technical training for fishers Develop and adopt a good practices charter |
| Slovenia | Strunjan NR | Sustainable management of artisanal fisheries | Training fishers in identifying species Implement monitoring catches and 32 were carried out Scientific publication of results and presented to fishers Purchase of sustainable fishing equipment for 8 professionals Reaching an agreement between the MPA and fishers (collaboration, adapting fisheries management measures – start and end dates for the fishing season) - signed by 8 out of 10 fishers Adapting the management plan in line with achieved results Seminar on good practices in co-managing fisheries resources |
| Albania | Karaburuni-Sazani National Park | Develop co-management approaches for sustainable fisheries | Develop collaborative research activities Fishing data collection in the field Identifying measures for sustainable fishing activities in the MPA Training programmes for trainers |
| Turkey | Gökova MPA | On the track of groupers | Mapping groupers' natural habitats and human activities in the NTZ Campaign to clean ghost nets Training on the method of tagging groupers at the University of Perpignan Six sites equipped with receptors, 5 fish tagged and followed for 7 months (still in progress) |
| Turkey | Gökova MPA | Support sustainable fishing activities | Prepare recipes for 36 commercial fish species including the invasive ones Organise a tasting festival of invasive fish species Demand for invasive fish species has increased by 400%; their price has increased by at least 20%, the cooperative fishers's income has increased by 184% from 2010-2015 Develop a system within the cooperative for reporting catches and sales Several communication actions (press, TV, ...) The pescatourism activities could not be developed, the town council having requisitioned the specific boat. |

| Country | MPA | Project name | Main activities and results |
|--|---|---|--|
| Tunisia | Cap Negro/ Cap Serrat MCPA | Sustainable fishing tourism | <p>Promoting the "Tunisian Association for the Development of Artisanal Fisheries (ATDEPA) NGO: creation of a website, awareness-raising days; To date, 23 fishers have joined (ATDEPA). The project's objectives forecasted 15 memberships.</p> <p>Organised a high-level visit: Heads of the Ministry of Agriculture, Water Resources and Fisheries (Minister's Chief of Staff, Head of Mission, and the Director of International Cooperation);</p> <p>Create a space for training, assistance and popularising good practices, valuing artisanal fisheries products and promoting eco-tourism in the area (unavailable today);</p> <p>Introducing fishers to good fishing practices (2-day training course) on selective fishing gear, navigation and stock assessment;</p> <p>The project has enabled fishers to benefit from the network of direct sales of artisanal fisheries products (developed within the Club Bleu Artisanal project's framework).</p> <p>Reaching an agreement with the Tunisia Telecom telephone operator so that member fishers get preferential tariffs; a relay antenna has been installed.</p> <p>Organised a hike to promote ecological tourism in the MCPA</p> |
| SUSTAINABLE FISHERIES MANAGEMENT (CSP A) AND DEVELOPING SUSTAINABLE TOURISM ACTIVITIES IN THE MPA (CSP B) | | | |
| Spain | Cap de Creus and Montgrí Natural Parks, Medes Islands, Baix Ter | Tackling major impacts of recreational fishing | <p>Knowledge-building on the impacts of recreational fishing for: (i) the different types of fishing bait used; (ii) the most vulnerable species caught; (iii) and the use of sustainable / unsustainable fishing gear.</p> <p>Publishing an information brochure on these three impacts (in French, Spanish and Catalan)</p> <p>Publishing a Code of Practice for Recreational Fishing</p> <p>Partnership charter drafted and signed by several fishing stakeholders (shops, fishers associations)</p> <p>Developed a logo for sustainable recreational fishing and distributed it to stakeholders who signed the charter</p> <p>Collaboration with the most important bait supplier and modifying bait boxes thus giving information on exotic bait "do not throw overboard" and the logo "sustainable recreational fishing"</p> |
| SUSTAINABLE FISHERIES MANAGEMENT (CSP A) AND DEVELOPING SUSTAINABLE TOURISM ACTIVITIES IN THE MPA (CSP B) | | | |
| France | Pelagos Sanctuary | Launch of « High Quality Whale-watching » certification | <p>Develop a Code of Conduct</p> <p>Validate the High Quality Whale-Watching® label for sustainable whale-watching (ACCOBAMS registered trademark, developed jointly with the Pelagos Sanctuary), and specifications produced by 15 operators, Pelagos and ACCOBAMS</p> <p>Produce a pedagogical file (9 booklets) and training courses for around thirty operators</p> <p>Develop operator evaluation sheets</p> <p>Communication tools</p> |
| Lebanon | Palm Islands Nature Reserve | Legal and technical support to develop ecotourism | <p>Proposal to open the reserve out of the regulatory summer season to tour operators, tourist guides and diving clubs, depending on the carrying capacity: assessing the operators' expectations and legal requirements</p> <p>Do a study on the carrying capacity</p> <p>Develop guidelines, tools (administrative documents for visiting permits) and educational equipment (training kit)</p> <p>Operators adopt the financial contribution principle (eco-touristic packages to access the reserve during the off-season) to improve management resources</p> <p>Training courses for trainers on visits and environmental regulations</p> |

| Country | MPA | Project name | Main activities and results |
|---|---|---|---|
| Lebanon | Tyre Coast NR | Develop and sustain underwater trails | Create an underwater trail, develop guidelines for its management, draft a business plan, training course for 8 guides, promote the trail to tour operators. Town council and fishers's involvement. |
| PLANIFICATION DE LA GESTION DANS UNE OPTIQUE DE GIZC | | | |
| Italy | Gaiola Underwater Park | Territorial analysis for the integrated management of the Posillipo coastline | Very important knowledge-building on the MPA's and neighbouring zones' environment in the following fields: geomorphology, bathymetry, marine biocenoses, birds, littoral flora and human activities Develop GIS Produce a methodological guide Presented at scientific conferences |
| Montenegro | Ratac, Katic, Platamuni, Stari Ulcinj (future MPAs) | Internet website - MCPA database | Collecting a large number of data sources: over 500 photographs, 100 scientific papers (including gray literature), 50 documents and brochures, 20 videos, 20 maps. Creating a bibliographic database Reinforce knowledge by doing field studies on 5 sites, with implementation of monitoring activities and developing GIS Develop a bilingual website for the MPA network |
| Italy | Bergeggi MPA | App The Island | Develop a smartphone application, which can be used on land and underwater, stimulating interest, especially among young people, in protecting the marine environment and making users voluntary players in the MPA's management by taking observations. |

Table 10
Les principaux résultats des projets





PART 3

Capitalisation on results

SUSTAINABLE DEVELOPMENT OF TOURISM AND LEISURE ACTIVITIES

Tourism, along with fishing, is one of the key activities in MPAs. They can play both a positive role (providing funds for MPAs, raising tourists' awareness, maintaining the landscape) and a negative one (a source of degradation and pollution, an important demand on natural resources - water, food, space - cultural impact)....

In view of this, MedPAN's small projects aim to reduce pressure and encourage developing good practices in tourism activities, such as diving, whale watching or recreational fishing, for example; to reduce induced pollution (water, waste, ...) encourage operators to get involved in the MPA's management, promote the development of knowledge-building tools (underwater trail, smartphone applications, etc.), and observation (signage, interpretation sites, ...).

Five projects fall under these themes: Tackling major impacts of recreational fishing (Cap de Creus and Montgrí Natural Parks, Medes Islands, Baix Ter, Spain), develop sustainable whale watching with a "High Quality Whale" certification (Pelagos Sanctuary France), developing ecotourism (Palm Islands Nature Reserve, Lebanon) and developing and maintaining an underwater trail (Tyre Coast NR, Lebanon)



Tackling the impacts of recreational fishing



Country: Spain

MPAs in question:

Cap de Creus and Montgrí Nature Parks,
Medes Islands and Baix Ter

Project leader: University of Gerona (Dr. Josep
LLORET and Dr. Toni FONT)

Year: 2014



Context

Recreational fishing is a booming activity in the Mediterranean's coastal areas as well as in some MPAs where this activity is permitted; this is the case in Spain. This type of fishing, which brings an important direct and indirect economic benefit, is much less researched on than commercial fisheries; its impact is therefore less well known. Previous studies led by the University of Gerona have shown that there is a high fishing effort and that fish's reproductive potential is impaired. A study done in several Mediterranean sites shows that recreational fishing's total catches represent between 10% and 50% of the total commercial catch (in Font et al., 2014). In the Cap de Creus Natural Park area, for example, they are almost as high (43 tons/year¹) as the artisanal commercial fishery (50 tons/year).

In addition to pressure on resources and reproduction, recreational fishing could have indirect impacts. Among the different types of impacts associated with this activity, three are insufficiently documented: catching vulnerable species, loss or abandoning fishing gear, and using exotic species as bait. Studies done by Lloret and Font have shown that at least 43% of the bait used by anglers is non-native living species (mainly polychaetes). These baits constitute a potential vector in introducing non-indigenous species in the Mediterranean, creating increasing environmental risks.

The resources' sustainability and the activity itself are therefore at stake.

MedPAN's small project

In this context, the project's overall objective was to understand better these impacts, raise recreational fishing stakeholders' awareness and get them to commit to voluntary measures reducing these impacts and contribute to implementing regulatory measures.

The project developed a number of tools, many which could be useful for MPAs in the MedPAN network. In particular, the partnership between the Cap de Creus and the Montgrí Natural Parks, Medes Islands and Baix Ter managers should enable these measures to be integrated into management plans currently under review.

The questionnaire on recreational fishing

An on-line questionnaire² was developed to clearly identify the recreational fishing activity on the Catalan coast, particularly in the Cap de Creus and Medes Island-Montgrí nature parks and surrounding areas. It examines the types of fishing, their methods, the types of bait and equipment used (balls, hooks, lines, etc.), the species caught ... The results will help to define better the practices and to adapt management measures and tools..

¹ including 3 T/year for angling, 20 T/year for recreational fishing and 20 T/y for underwater fishing

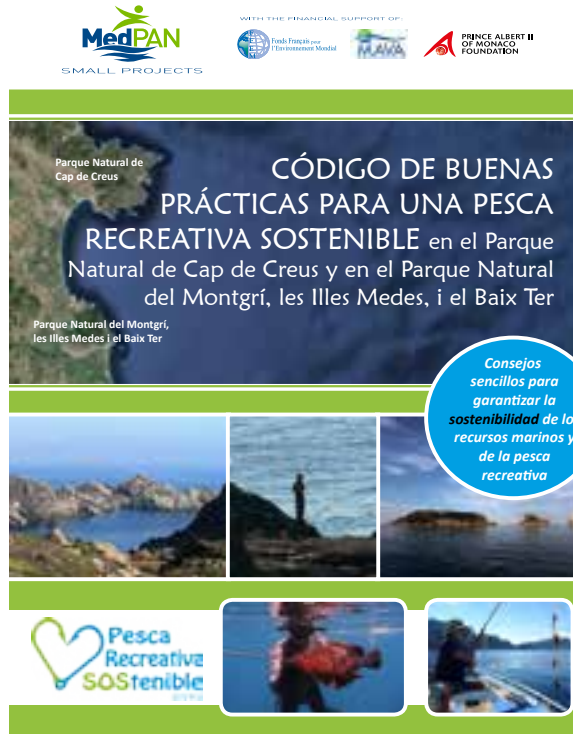
² https://docs.google.com/forms/d/1-RZjY_6dsMHYQYzf-RP3FwFnUit8C_AtpGRppN0Egw/viewform

The code of good practice

This 27-page code of good practice handbook, developed in collaboration with the two park managers and fishers, is intended for novice or more experienced fishers and aims to inform them on recreational fishing's impacts and give them some advice on how to reduce them effectively:

- fish reasonably, for their own consumption;
- inquire about regulations, particularly on different species' minimum legal sizes;
- avoid fishing species that are spawning/breeding
- avoid fishing threatened species or fishing in sensitive habitats
- collect their waste, etc.

It also identifies vulnerable species and advises not to fish more than one individual of these species per fishing trip and per fisher.



It highlights the damage that fishing gear can cause and proposes alternative solutions to lead weights, such as ballast, brass, steel, or lead-free alloys.

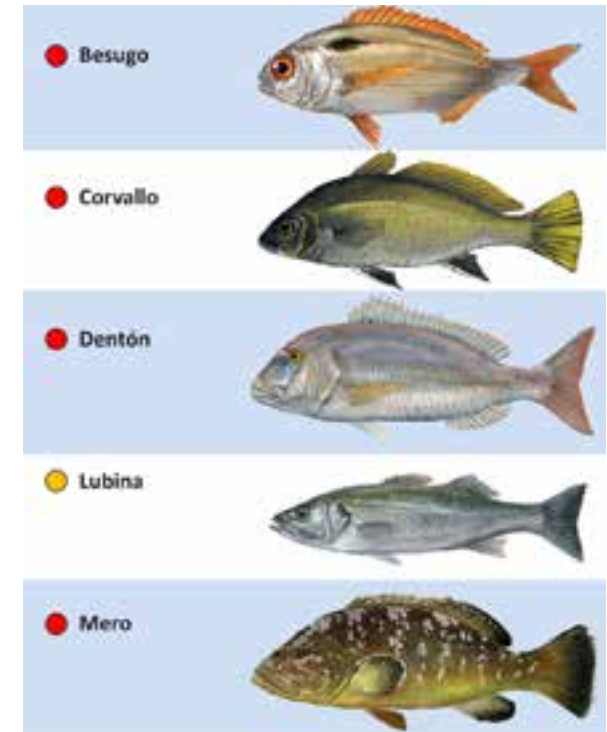
It provides information on the risks associated with exotic bait that could lead to an ecological imbalance in some areas of the Mediterranean coast. As bait boxes could also contain other exotic organisms (e.g. invertebrates) such as small crustaceans or snails, but also worm-related viruses, it is advisable to throw nothing into the sea after fishing.

Finally, it gives advice on how to catch, handle and release fish.



Other than the fishers themselves, part of this code of good practice is intended for recreational fishing organisations (federations, associations, clubs, etc.) mobilising them to raise their members' awareness; another part is aimed at fishing shops to encourage them to educate their customers and promote the sale and purchase of more sustainable fishing equipment, such as stone pellets.

The reasons for these recommendations are presented in the appendix, which provides information on exotic baits' risks; the vulnerability of some species on the IUCN endangered species red list, and fishing gear and equipment's impact.





Awareness raising flyer

For distribution in shops and other meeting places (ports, marinas ...), it summarises the code of good practices. It was published with the Catalonia region's support.

Partnership charter

La charte de partenariat est un engagement volontaire des acteurs, auprès des AMP, à respecter certaines pratiques. Elles ont été prévues pour 2 types d'acteurs, les responsables des magasins de pêche et les syndicats de pêcheurs. Le document de 2 pages présente les avantages de s'engager (disposer d'un certificat de collaboration et d'un label/logo) et liste les engagements auxquels les acteurs vont concourir: promouvoir l'information de leurs clients ou de leurs membres sur les impacts de leur activité en mettant à leur disposition les outils développés dans le cadre du projet, les aider à reconnaître les espèces sensibles, promouvoir leur appui aux recherches scientifiques, pour les magasins, promouvoir la vente de matériel plus respectueux de l'environnement etc...

The charter membership diploma and logo (label)

On signing the charter, the signatory gets given a "diploma". The "sustainable recreational fishing" label, created for the occasion, can then be put on windows and other places in the signatory's organization.



Compte amb els peixos vulnerables!

- Alguns peixos són especialment vulnerables a la pesca i estan sotmesos a una pressió elevada, per tant és aconsellable que no es capturi més d'un individu per sortida de pesca i pescador d'aquestes espècies, excepte quan la normativa prohibeixi la seva captura. (Veure llista de les espècies vulnerables)
- Recorda que la normativa pot canviar: si es prohibeix la captura d'alguna d'aquestes espècies vulnerables, en cas que pesquis accidentalment algun exemplar protegit, ha de ser immediatament alliberat al mar (inclús si ha mort durant el procés de captura) amb precaució per causar-li els mínims danys possibles.
- Assegura't de conèixer la talla mínima legal de captura dels peixos, especialment dels més vulnerables.

Un sol pescador recreatiu no causa gaire impacte, però el conjunt de pescadors, sí! Ajuda'ns a aconseguir una pesca sostenible!

Passa del plom i dels altres materials tòxics!

- Mira d'utilitzar alternatives ecològiques als ploms convencionals, com ara pesos de pedra, llautó, acer o fets d'alliatges que no continguin plom (informa-te'n a la teva botiga de pesca).
- Prioritza l'ús d'hams oxidables davant dels inoxidable, ja que en cas de pèrdua, acabaran per desaparèixer més ràpidament amb el pas del temps. Prioritza també les boies de suro o fusta en comptes de les de plàstic.
- Intenta fer un manteniment periòdic dels aparells de pesca, perquè uns ormeigs en males condicions poden derivar en ruptures i pèrdua de fil, ploms i hams, que acaben afectant el fons marí.
- Molts esquers artificials porten també plom com a component principal, com és el cas dels jigs per a la pràctica del jigging, i que poden tenir les mateixes repercussions que els ploms en el medi.
- Si practiques la pesca de fons o jigging des d'embarcació, en què el baix de línia entra en contacte amb el fons, i les condicions meteorològiques són adverses, evita pescar a la deriva per tal de minimitzar les probabilitats d'enrocar i perdre el baix de línia.
- Si pesques des de la costa, intenta recollir la línia ràpidament, ja que una recollida lenta pot provocar l'enganament del baix de línia a les roques o als invertebrats sèssils com les gorgònies, les esponges o els coralls.

Coneixes bé els esquers que utilitzes?

- Quan acabis de pescar, no llençis els cucs sobrants ni el contingut de les capses al mar! Alguns d'aquests cucs són espècies exòtiques (procedeixen d'altres llocs de fora la Mediterrània) i poden acabar introduint-se al lloc de pesca i generar impactes negatius sobre la fauna local.
- Comprova la normativa vigent: l'ús d'espècies exòtiques com a esquers en àrees marines protegides podria estar prohibit.

| | |
|---|---|
| Esquers exòtics ❌ | Esquers no exòtics ✅ |
| Amèrica Coreà verd Coreà vermell Cordill | Nord Rosca Llobarrer Supercoco Llombriu Funda Arenys Bomba Tita Tita de palangre |

- Mira d'utilitzar, sempre que puguis, esquers tradicionals com ara (senecers o en trossos): calamar, llagostí, gamba, sépia, pop, musclo, anxoixa/seiò, sardina, etc. Millor si han estat congelats prèviament.

Les espècies vulnerables es caracteritzen per tenir:

- un creixement lent.
- una longevitat elevada: són peixos que viuen molts anys.
- un potencial reproductor baix: són peixos que es reproduïen tard, o bé ponen pocs ous, o bé tenen estratègies reproductives complexes.
- estan inclosos dins convenis i llistes internacionals de protecció de la biodiversitat.

És comú que els baixos de línia (amb plom, hams i fil) quedin enrocats en els fons irregulars (de roca o coral·ligen) durant una mala recollida de la línia de pesca, la qual cosa genera acumulacions importants de materials tòxics que es degraden a molt llarg termini (un fil de pescar tarda al voltant de 600 anys en descompondre's) i produeix danys als organismes fràgils que hi viuen (p. ex. "estrangulació" de coralls i gorgònies).

L'ús d'espècies exòtiques com a esquer pot constituir una important via d'introducció d'espècies invasores i generar desequilibris ecològics en alguns indrets de la costa mediterrània. A més, cal tenir en compte que poden haver-hi altres organismes exòtics que acompanyin els esquers a les capses on van empaquetats (com petits crustacis i cargols), o bé virus associats als cucs. Tingues cura de no llençar res al medi després de pescar!

Promote the use of ecological weights

Despite the fact that there is little information available on the amount of recreational fishing gear accumulated on the sea floor, there is evidence that in areas used by fishers there is an important accumulation of lead, wire, and hooks, as some recent studies carried out in the Mediterranean, but also throughout the world, have shown. Lead like plastic are toxic materials. Over 70% of the fishers surveyed in the study appear willing to use unleaded green ballasts, such as stone ballasts, provided they are not more expensive. Therefore, the project approached shops selling fishing equipment, including department stores such as Decathlon to promote selling stone rather than lead ballasts. This work could not be completed within the project's timeframe and must be continued

Managing exotic baits: in collaboration with Normandie Appâts

Normandie Appâts is one of the largest multinationals in Europe to sell live sea worms for recreational fishing at sea. The parent company is located in France but has other branches, particularly in Spain where Normandie Appâts Iberica is the country's leading supplier. The project brought a fruitful collaboration with Normandie Appâts Iberica, who agreed to modify their exotic worms packaging and add "do not throw into the sea" recommendations and the "sustainable recreational fishing" logo on it.



TO MAKE
EVEN
FURTHER
PROGRESS

Good practices and lessons learned

Before legislating and banning practices, improve knowledge on the activity's impacts and pass them on to recreational fishers and other stakeholders through appropriate informative and educational tools.

Door to door communication with shops, for example, is an effective way of disseminating information.

Working with stakeholders who have significant leverage: unions that will broadcast to all their members; the main wholesale bait supplier and shops, including large ones like Decathlon.

Collaboration between MPA managers and scientists is successful; it must be encouraged.

Recommandations

It is a long-term process to change recreational fishers's deeply ingrained behaviour, or retailers who fear for their activity. Awareness raising and information disseminating activities need to be adapted and continued over several years.

Transferable tools to MPAs in the MedPAN network

- the comprehensive on-line questionnaire, can be used by other MPAs to study the recreational fishing activity on their territory;
- (https://docs.google.com/forms/d/1-RZjY_6dsMHYQYzf-RP3FxfNlUt8C_AtpGRppN0Egw/viewform)
- the Code of Good Practice (in French, Spanish and Catalan);
- the flyer summarising the three main impacts (in French, Spanish and Catalan);
- the partnership charter;
- the diploma;
- the sustainable recreational fishing logo

FOR MORE
INFORMATION

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Victòria Riera Aragó, Cap de Creus nature park's manager ; victoria.riera@gencat.cat
<http://parcsnaturals.gencat.cat/ca/cap-creus>

Sustainable whale watching certification: High Quality Whale-Watching® label



Country: France

MPA in question:
Sanctuaire PELAGOS (Partie française)

Project leader:
Association souffleur d'écume

Year: 2014



Context

The whale-watching activity is a fabulous way to impart environmental education when managed efficiently; it contributes to the local economy and can contribute to cetacean research and conservation.

Commercial whale-watching is a growing economic sector in the French Mediterranean (32 operators in 2014) with the number of operators increasing by an average of over 3.2% per year. Without proper management, this growth is not always sustainable: intrusive approaches of animals, development of a swimming activity with cetaceans, aerial detections, lack of raising the passengers' awareness

In view of these observations, the Pelagos Sanctuary¹, in partnership with the ACCOBAMS² agreement, launched certain measures in 2007 for this activity, by first establishing a code of good conduct. This was followed by the idea of setting up a voluntary label, associated to specifications, bringing together whale-watching operators keen to show their responsible practice through environmental commitments. This label must promote an integrated and sustainable activity respecting the code of good conduct and promoting whale-watching's educational value, to eventually marginalise and exclude/get rid of non-compliant operators.

In 2014, the label was adopted by ACCOBAMS, then by the Pelagos Sanctuary. In France, the Souffleurs d'Écume association carries the label.

MedPAN's small project

In this context, the project's aim was to continue these labelling activities (communication, training, evaluation) in order to promote an integrated and sustainable whale-watching activity over the long term; initially starting with a pilot area incorporating Pelagos Sanctuary's French part and adjacent waters, with the objective of covering the whole Pelagos Sanctuary and eventually the entire ACCOBAMS area..

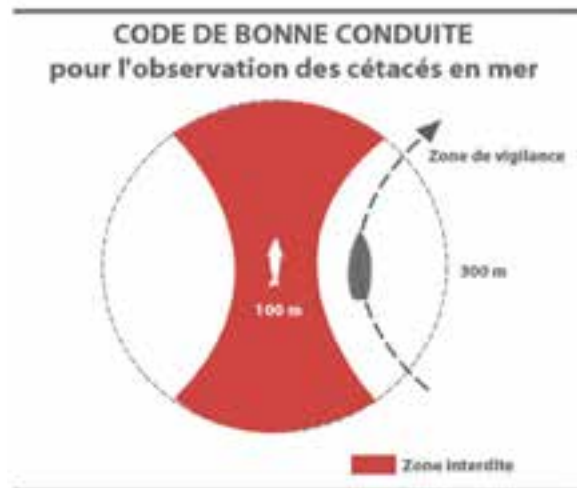


¹ The Sanctuary covers a sea area of 87,500 km² and has an Agreement to protect marine mammals that frequent it with Italy, Monaco and France.

² Agreement on the Conservation of Cetaceans in the Black Sea, the Mediterranean and the Adjacent Atlantic Area. 23 member countries. www.accobams.org

The Code of Conduct

It outlines the approach zones: the prohibited zone (100m) and vigilance zone (300m) and specifies recommended practices in the vigilance zone (300m), when the cetacean voluntarily approaches the boat, and gives general recommendations (the boat's speed, information for visitors ...).



5- En bref

- ✓ Allure lente et progression calme et constante dès le repérage des cétacés et particulièrement dans la zone des 300 m.
- ✓ Pas d'approche en deçà de 100 m.
- ✓ Durée d'observation limitée à 30 minutes, 15 minutes si d'autres bateaux sont en attente.
- ✓ Un seul bateau dans la zone des 300 m.
- ✓ Ne jamais tenter de toucher, nourrir, ou nager avec un cétacé.

Training

The « **High Quality Whale-Watching** » label can be requested by any operator offering tours to see cetaceans in their natural environment from a French Mediterranean port.

A high quality whale-watching activity requires important skills. This is why training managers of whale-watching operators and people on board is an essential clause for this label. The training course's objectives are:

- to add value to beneficiaries' sightings/outings;
- to promote a quality service and an ecologically sound approach for the public;
- to limit the activity's impact on cetaceans and contribute to their conservation;
- thus ensuring a sustainable future for whale-watching.

Souffleurs d'Ecume has developed a 3 day training course consisting of 5 modules:

- marine ecology: "The Mediterranean: physico-chemical and biological aspects" (booklet 1); "Species observed at sea: birds, turtles, fish" (booklet 2);
- cetology: "Cetaceans: palaeontology, physiology, adaptation" (booklet 3) and "Cetaceans: the Mediterranean's populations, ecology and conservation status" (booklet 4);
- anthropogenic interactions: "Cetaceans and anthropogenic disturbances: what measures to be taken within Pelagos" (booklet 5);



- strandings: "the network for monitoring strandings; useful information" (booklet 6);
- marine environment law and management: "applicable legislation for cetaceans in the Mediterranean" (booklet 7).

Educational files have been published/produced; they consist of 7 thematic booklets, as well as a practical guide for whale-watching operators in the French Mediterranean.

Labelling/Accreditation

The label should be seen as giving operators support towards adhering to more respectful practices.

Once the training is finished, an operator can ask to be awarded the label. The beneficiary co-signs an official document with Souffleurs d'Ecume agreeing to respect specifications; comply with the Code of Conduct, respect specified outing arrangements, undertake to raise their passengers' awareness, participate in scientific research and conservation programmes, and contribute to think tanks to improve practices.



To qualify for the label, a person in charge of the beneficiary organisation must on the one hand validate the training, and secondly at least one person who has also validated the training must be aboard at each outing.

Once awarded the label, the beneficiary may use the associated logo (below) and use the following terms "sustainable whale-watching" or "responsible whale-watching" or "quality whale-watching" or "High Quality Whale-watching" label.

Labelling is regularly reviewed/evaluated:

- on the one hand by passengers, via evaluation sheets which allow them to express their feelings about the outing and if the label's conditions were respected by the beneficiary;
- on the other hand, by a mission manager who embarks on the beneficiaries' vessels during their outings, to evaluate specifications' compliance and then drafts an outing report.

Periodical meetings with the various stakeholders enables to evaluate the system, raise problems with a view to improving specifications on a regular basis.

Communication

The challenge is being able to firmly convince operators to adopt and retain the label by making it an advantage. This is why communication is essential:

- Information via the media and on social networks, to publicise the label,
- inform different stakeholders and in particular tourist offices and city councillors where nautical activities are the main tourist activities during the summer period, in order to encourage them to promote their operators' commitment to labelling.



TO MAKE
EVEN
FURTHER
PROGRESS

Good practices and lessons learned

Labelling operators is a guarantee of quality whale-watching tourism, enabling to identify those that adhere to a responsible environmental approach,

It is important to be able to adapt awareness-raising procedures and tools to specific targets: elected representatives; tourist offices

Rely on key intermediaries to disseminate information (here tourism offices and whale watching operators)

Properly plan activities (do everything well in advance of the summer tourist season as operators are less available once it starts)

Promote operators who are committed (make them known, recommend them...)

Transferable tools to MPAs in the MedPAN network

- The Code of Conduct
- The label and its specifications (website: <http://www.whale-watching-label.com/>)
- The training pack (9 booklets)
- The labelled operators' presentation document
- Evaluation sheets
- The REPCET smartphone application which reduces the risk of collisions and enables to collect cetacean observations (http://www.repcet.com/ressources_documents_fr)

FOR MORE
INFORMATION

Souffleurs d'Ecume (website: <http://souffleursdecume.com/>)
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Develop eco-tourism into an awareness raising and financial tool

Country: Liban



MPA in question:

Réserve Naturelle des Iles aux Palmier

Project leader:

Comité de la Réserve Naturelle des Iles aux Palmiers

Year: 2014



Context

The Palm Islands Nature Reserve (PINR) was established in 1992 in a militarised zone. The Appropriate Protected Area Committee (APAC) is responsible for managing the reserve and is committed to implementing Law 121/92, which regulates visits to Palm Islands' marine reserve.

The reserve is open to the public on a seasonal basis between the beginning of July and the end of September and is closed the rest of the year, except for educational, scientific, cultural or awareness-raising visits. The summer period is very busy (on average 200 visitors/per day for 3 months on an 800 meter long beach), during the turtles' egg-laying period, with little awareness of environmental issues (waste is an important problem). The reserve's financial resources are very limited (the reserve has not received funding for 3 years), rangers are only paid for 6 months, and hiring personnel is impossible, moreover the site's layout, which is totally surrounded by water, makes monitoring/surveillance difficult.

MedPAN's small project

The objective is to promote regulated ecotourism by opening the reserve all year round to tour operators, tourist guides and diving clubs, depending on the carrying capacity. Increasing attendance should provide APAC with higher revenues, enabling to develop infrastructure and ensure its maintenance, continue monitoring and research activities, which to date are only occasional due to a lack of perennial/regular budgets.

The project aims to (i) develop well-organised and transparent regulatory guidelines and procedures required to authorise this attendance, and (ii) educate professionals, students and the general public about PINR's biological and physical diversity.

Involve stakeholders

Carrying out an operators' needs analysis and expectations made it possible to initially measure their interest in the proposal to open the reserve in winter and for a financial contribution.

78% of the operators surveyed (26 responses) are interested in the reserve opening outside the usual summer season and 82% are willing to organise tours in exchange for a financial contribution. In general, the need to promote PINR among institutions and the general public to attract more tourists is felt to be important.

Identify the carrying capacity

The reserve's carrying capacity study (terrestrial and marine) has been updated: the final results are 239 visitors/per day in the high season and 48 visitors/per day in the MPA's off-season.

Develop regulatory tools

The authorities were made aware of the proposal to review the reserve's off-season opening possibilities and relevant regulatory issues were discussed with them during a workshop: guidelines and specific visitor permits for each target audience (scientists, schools, tourism operators and diving clubs) were developed, as well as the relevant application forms.

A second workshop enabled to validate the guidelines, including the financial contribution principle via ecotourism packages to access the reserve in the off-season period. Participants agreed on 5,000 Lebanese pounds (3€) per regular visitor and 10,000 Lebanese pounds (6€) per diver for PINR. But these proposals still have to be approved by APAC.



Develop educational materials

Opening the reserve during the normal off-season makes it possible to observe the fauna and flora (nesting, bird gatherings...). A seasonal calendar was produced to guide operators on the most interesting times to visit. A training kit containing more than 20 documents was also produced: presenting the reserve, its terrestrial and marine ecotourism benefits/resources, a brochure on Lebanese nature reserves, a brochure and video on the reserve's new underwater trail, a brochure on the reserve and its surrounding areas' birds, a guide on Lebanese commercial fish species...

Operators were specifically trained in the reserve's characteristics during a theoretical and a practical session in the field.

An underwater trail has been set up, in parallel to the project and with self-funding

TO MAKE EVEN FURTHER PROGRESS

Good practices and lessons learned

Partnerships with tourism agencies are interesting to promote ecotourism in the MPA and mobilise funding; but only local tourism stakeholders are interested in the MPA, not those further away.

Eco-tourism, with a financial contribution from tourists via operators, is a way for the MPA to get more income, in a weak public sector support context.

In a popular destination context, it is important to ensure that the MPAs' access is managed in line with its carrying capacity;

Promoting an institutional level approach increases the chances of the activities' sustainability.

Transferable tools to MPAs in the MedPAN network

- The carrying capacity calculation method could be of interest to other MPAs;
- The training kit (must be adapted to each MPA's context)

FOR MORE INFORMATION

Ghassan Ramadan Jaradi (Chairman): Palm Islands Nature Reserve Committee

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Shadi Indary, M.Sc: shadi.elindary@balamand.edu.lb

Develop and sustain underwater trails



Country: Liban

MPA in question:

Réserve Naturelle côtière de Tyre

Project leader:

Réserve Naturelle côtière de Tyre

Year: 2015



Context

The town of Tyr boasts an exceptional heritage which is recognised by UNESCO, and is an important tourist attraction. This remarkable maritime heritage, which includes monumental remains, must be protected and valued. The area is not monitored and removable remains such as fragments of pottery and small objects are looted. Local fishers and visitors need to be informed on the importance of conserving the remains in situ for research. In addition, the Tyre Peninsula is a conducive environment for different species of turtles' (hawkbill and green) egg-laying and feeding activities. Thus, the Jamal zone is one of the few sites in Lebanon where it is possible to swim with turtles close to the shore.

MedPAN's small project

During the summer, the natural and historical underwater heritage in the shallow waters around the Tyre Coast Nature Reserve is under severe pressure. The project aims to protect and enhance this heritage through ecotourism. The objective is to bring a new and innovative ecotourism offer by creating an underwater snorkelling trail, accessible to all.

The trail has been promoted among local tourists; it is also used as an educational tool to raise local communities' awareness on the value and vulnerability of this natural and cultural heritage, as well as on the MPA's benefits.

Setting up the trail

The project's main activity consisted in establishing the trail in 2 stages: identifying and mapping the trail, then marking it out. The project leader was helped by a French association, Association for underwater research in Roussillon (ARESMA), who has been specialising in underwater archaeology for over twenty years.

During this phase, many trail management tools (guidelines) were developed: guidelines to complete, sign-post and secure the trail; to produce educational aids; for the trail's technical and financial management; to find and train guides; and finally to promote the trail. A Responsible Visitor Charter has also been drafted.

Guides' training course

Eight snorkelling guides were trained. Among the subjects covered during their training course, we can mention Tyre's history, biology, safety and first aid.



Towards financial autonomy

A business plan was developed to evaluate the trail's expenses (personnel, material costs - regular replacement of safety equipment, users' equipment..., activity's operating costs...) as well as the income generated by the trail's visitors. The income must be divided among the trail's managers to cover the activity's operational, promotional as well as guide costs. According to this plan's estimates and based on 75 visitors, the trail should be financially autonomous and could cover the guides' salaries.

Promoting the trail

The trail's promotion was mainly aimed at eco-tour operators. Thus, they in turn have become stakeholders in its promotion. Some tour operators have already included the trail in their catalogue.

A collaborative project

This project has been a very collaborative one, involving many stakeholders throughout its implementation: the town council has co-financed some actions and made their staff available; the fishers participated in marking out the trail.

Finally, the project leader met with managers of other similar trails, notably in France, to exchange experiences.

TO MAKE
EVEN
FURTHER
PROGRESS

Good practices and lessons learned

Partnerships with the Association for underwater research in Roussillon (ARESMA) to implement the project, with tour operators to promote the trail.

The project's "triple" objective: awareness raising, protection and economic development.

Developing a business plan.

Transferable tools to MPAs in the MedPAN network

- The "business plan" model.
- The project leader's experience in setting up an underwater trail linking elements of archaeology and marine environment

FOR MORE
INFORMATION

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l'Association pour les REcherches Sous MARines en Roussillon (ARESMA):

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FISHERIES SUSTAINABLE DEVELOPMENT AND MANAGEMENT

A large number of Mediterranean fish stocks are currently overexploited (in 2012, estimates recorded 82% according to the European Commission and 79% according to the General Fisheries Commission for the Mediterranean). Artisanal fisheries have many positive and significant effects on coastal populations and often have less impact on the marine environment than industrial fisheries. The former provides significant income and protein and contributes to sustainable development and reducing poverty. Artisanal fisheries in the Mediterranean account for about 86% of the 42 000 fishing boats registered in the region. Although this type of fishing is in decline and insufficiently taken into account on scientific and political levels; it has an essential social, economic and ecological role.

Numerous studies, including one by WWF France and Port-Cros national Park in 2014 (The involvement of fishers in Mediterranean marine protected areas, a key element of successful artisanal fisheries management), show how the creation and co-management of coastal marine areas in the Mediterranean, involving fishers from the beginning of the process, have achieved examples of successful coexistence looking after both the interests of fishers and the conservation of the marine environment. Conservation efforts on the sites studied have brought about stabilised or increasing fishing yields.

MedPAN's small projects' key objectives included to develop no-take zones, promote participatory management of fisheries activities, enhance MPAs fishery resources, develop alternative and/or income-generating activities for fishers (pesca-tourism, diversifying fishing techniques, etc.). Five of these small projects were aimed at developing sustainable fishing activities by involving fishers in responsible co-management: the Gökova Bay MPA's sustainable fishing project, the project in Algeria by involving fishers in the process of creating a MPA, the project in Slovenia or even the one in Albania to involve fishers in the MPA's management and finally the Tunisian project aimed at bringing fishers together by creating an association and training them in good fishing practices.



Reduce pressure on fisheries by enhancing exotic species value



Country: Turquie

MPA in question:

Baie de Gökova

Project leader:

Mediterranean Conservation Society

Year: 2014



Context

Gökova Bay in Turkey was declared a Special Environmental Protection Area (SEPA) in 1988. Both tourism and the dynamic fishing activity are an important means of existence (around 100 professional boats and 3 cooperatives, including the Akyaka Cooperative which helped the project). Following the collapse of important target species stocks, including groupers, six no-take zones were declared in 2010, two of which were subsequently extended, and are monitored by rangers, who were former fishers.

The fishing activity is now faced with new problems caused by the arrival in 2008 of the invasive Lessepsian¹ species which are now found in catches (up to 25 to 30% of the total catch of Akyaka cooperative's fishers). The consumer is unfamiliar with these species, so demand is very limited, resulting in low prices and a potential loss of income for fishers. Yet these species are tasty, especially the *Siganus rivulatus* which is an excellent fish if well prepared. In Greece, the market price for these species is at least five times higher than in Turkey



MedPAN's small project

The project's overall objective is to improve sustainable fisheries in Gökova Bay by: (i) developing better marketing techniques for invasive species, (ii) establishing an information system for long-term monitoring of catches and the market; and (iii) creating alternative livelihoods by developing pesca-tourism.

¹ Randall's threadfin bream, *Nemipterus randalli*; Anoli or Brushtooth lizardfish, *Saurida undoquamis*; Marbled spinefoot, *Siganus rivulatus*; GoldBand Goatfish, *Upeneus moluccensis*

Enhance the value of exotic species

The first activity consisted in renovating the Akyaka fishing cooperative: cleaning up, decorating it with large posters, pictures... making the office more attractive.



Figure 11
Renovation of the
fishing cooperative
(top: front, bottom:
after)

Then, several activities were carried out to promote and appreciate exotic species:

- recipes for 36 commercial species were prepared by a chef; the recipes were published and distributed via the cooperative (opposite);
- a poster was published to raise the public's awareness, presenting fish species (below)



This project's innovative idea was to organise an invasive fish species tasting event: over 400 people participated; 120 kg of fish were cooked and served to the public. During the festival, participants were asked about their knowledge of invasive species and what they thought of the festival. Two restaurants participated in promoting these fish and disseminating raising awareness materials to the public.

A system was created on excel by one of the pre-trained cooperative's fishers to record catches and sales, and it has enabled to highlight the remarkable results obtained through these actions (see box).

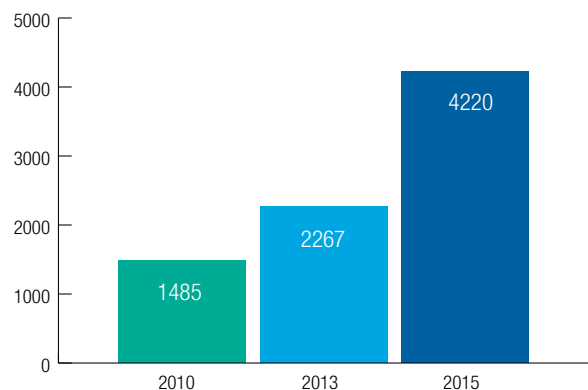


Figure 12
Fishing revenue per boat
between 2010 et 2015 (in
turkish lira)

Some remarkable results

- the demand for invasive species increased by 400 %
- the price of invasive species increased by at least 20%;
- due to establishing no-take zones, rangers monitoring illegal activities, and enhancing the value of invasive species, the cooperative's revenue per boat has almost tripled between 2010 and 2015;
- while invasive species catches remained unsold the previous year, in 2015 all catches were sold;
- restaurant owners and consumers are more aware of these species' culinary interest;
- as a result of this increasing demand for invasive species, more and more fishers have changed their equipment to target these species. Some industrial fishers have invested in smaller artisanal fishing vessels to target these species during the closed season.

TO MAKE
EVEN
FURTHER
PROGRESS

Good practices and lessons learned

Raising awareness with attractive methods (the tasting festival), the local population adheres more easily to the project's expectations.

The added value and support given to the local fishing community was greatly appreciated and will ensure their support for future projects.

When aimed at the right targets, projects can deliver significant results and added value, even with small budgets.

Transferable tools to MPAs in the MedPAN network

Invasive commercial species are currently more visible in the eastern Mediterranean, but could spread westwards thereafter. All MPAs affected by these invasions could benefit from these experiences.

- The idea of renovating the fishing cooperative, and making it more attractive using posters
- Recipe cards (to be translated into the appropriate language)
- The poster (to be translated into the appropriate language)
- The cooperative's catch capture and sales data tracking model
- The tasting festival idea

FOR MORE
INFORMATION

Mediterranean Conservation Society (Mediterranean Conservation Society):
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Promote co-management among fishers



Country: Algeria

MPA in question:
PN Gouraya (future MPA)

Project leader:
PN Gouraya

Year: 2014



Context

Gouraya National Park's coastal landscape is subject to strong anthropogenic pressures, linked in particular to the exploitation of fishery resources, due to techniques constantly improving, thus increasing the yield. In all fisheries combined, production has increased from 2,153,737 tons (in 2009) to 3,522,380 tons (in 2011). In 2010, the Wilaya of Bejaia fleet registered 221 boats for 1,080 seafarers. Apart from the bosses and mechanics who are qualified, sailors remain very low skilled and need fishing to survive. Thus, establishing a Marine Protected Area will enable to combine economic development and the protection of the environment. It will be essential to increase awareness among fishers and other users.

MedPAN's small project

The Gouraya National Park has initiated a procedure to classify its adjacent coastal landscape. In order to facilitate this approach, users must initially be made aware, in particular fishers, and participate in defining the future MPA's management plan and zoning. In addition, alternative income-generating activities should also be identified, including a diversification towards tourism. The project aimed to implement the following activities

The project aimed to implement the following activities :

- Acquire knowledge on the fishing areas in Gouraya's future marine protected area.
- Raise users' awareness of the dangers in continuing to fish without a sustainable management policy.
- Get users and managers from the different Directorates to think about the tools to be put in place to adopt this area's management measures within a consultative and participative approach framework, which guarantees a proper functioning.
- Establish a charter of good conduct and have artisanal fishers comply with it.
- Determine the potential for developing compensatory activities.

Raising awareness

Two open days on "establishing a sustainable management of artisanal fisheries in the future Gouraya MPA" were organised. During these two days, numerous events took place: conferences on the project, the Mediterranean's marine biodiversity, artisanal fishing in the Wilaya of Bejaia, pesca-tourism, the importance of fishers participating in the sustainable management of artisanal fisheries, the benefits of a MPA; exhibitions and stands; films and short film screenings and a debate, which resulted in 4 recommendations:

- Avoid building other infrastructures impacting on the area.
- Take into account purse seiners and small purse seiners.
- Enlist fishers in traditional and sustainable fishing practices.
- Contribute to developing a charter of good practices.

Media coverage through the local radio increased the listeners' awareness. It is estimated that over 600 people participated in these open days

Capacity building

A training for fishers, fishers's bosses and shipowners was organised. Several associations of fishers, professionals and recreational boaters, associations of environmental protection, as well as some Directorations of the overnment of the "Wilaya" (Direction of the environment, Direction of the fishing, Direction of the fishing chamber, the forest conservation, the National Coastal Commissariat (CNL), the Coast Guard) participated in this training.

Engaging fishers: the charter of good fishing practices

The development of the charter of good practices was very participative, including the organisation of a workshop that brought together about 40 people. At the end of the workshop, a draft charter was approved. This project was then reworked, presented to the various partners for approval and layout. The charter was signed by 18 people who in exchange received a framed copy. Signs bearing the charter are now located at the two fishing ports in the municipality of Bejaia.



TO MAKE
EVEN
FURTHER
PROGRESS

Good practices and lessons learned

The involvement and awareness-raising of the various stakeholders and stakeholders in the marine area around the PNG.

The many exchanges with other MPAs.

Communication actions including the organisation of open days (600 people reached).

Transferable tools to MPAs in the MedPAN network

- The developed charter (and its development process) can serve as a model for other MPAs

FOR MORE
INFORMATION

Project manager: **Rabah Boutekrabet** (boutek06@yahoo.fr)

Gouraya national park: <http://png-dz.org>

Sustainable management of artisanal fisheries (Strunjan nature reserve, Slovenia)



Country: Slovenia

MPA in question:
Strunjan NR

Project leader:
Strunjan Park's Public Institute

Year: 2014



MedPAN's small project

The MPA is managed by Strunjan Park's Public Institute and is in the process of adopting a management plan for the area which requires taking cooperative measures with local artisanal fishers. Under the proposed management plan, the project planned to draft an agreement between the Reserve and fishers. The agreement's objective was, on the one hand, to encourage fishers to collaborate with the Park in monitoring catches and on the other hand, to make it possible for the Park to make minor changes to the region's fishing regime on an annual basis

Monitoring system...

A system to monitor catches has been set up with technical assistance from the National Institute of Biology. In order to develop this system, 32 outings (4 per fisher) were organised to raise the fishers's awareness and train them. This monitoring study is to collect data on fish caught (target and non-target species), by-catches, with particular attention to rare, lesser-known and endangered species. The following data was recorded: date and time, fisher's surname and first name, net type and length, a graph with net location, catches and by-catches. An information sheet was created..

... an analysis of the initial data collected

Following this first monitoring study, the data was analysed in collaboration with the Institute of Marine Biology, an important partner in the project: basic ecological parameters (habitat types, depth distribution, and vegetation cover). Then a research report on fish species in the park was published..

Incentives for fishers

Fishing equipment was purchased and distributed to the 8 fishers involved in the project to encourage them to fish with sustainable fishing gear.



Agreement with fishers

The project enabled to sign an agreement between the Park and fishers (see the main regulations in the table below).

The agreement's main regulations

Fishing regulations

- Mesh size: minimum of 32 (in spring) and 40 (autumn-winter)
- Use a vessel that is less than 8 meters long

Fishing season

- A maximum of 90 fishing days in the spring.
- A maximum of 120 days during the autumn/winter..

Monitoring

- Fishers undertake to record their catches and report on them during their annual meetings..

L'autorité de gestion s'engage aussi à organiser 2 réunions annuelles pour évaluer la mise en œuvre de l'accord ; toute infraction à l'une des règles entrainera l'annulation immédiate de l'accord.

The managing authority also undertakes to organise two annual meetings to evaluate the agreement's implementation; any breach of a single regulation will result in the agreement's immediate cancellation.

TO MAKE
EVEN
FURTHER
PROGRESS

Good practices and lessons learned

It is essential to communicate regularly with the fishers in order to establish trust and a positive collaboration.

The importance of clearly explaining the project and which measure(s) can benefit fishers. In this project's case, fishers will be able to benefit from more fishing days.

Purchasing fishing equipment for fishers is an excellent incentive to get them involved in the project.

Transferable tools to MPAs in the MedPAN network

- To a certain extent, this agreement could be adapted to other MPAs, or at least be a source of inspiration.

FOR MORE
INFORMATION

Project leader: **Luka Kastelic** (luka.kastelic@gov.si)
<http://www.parkstrunjan.si>

Develop co-management approaches for sustainable fisheries in Karaburun-Sazan MPA



Country: Albania

MPA in question:
Karaburun-Sazan MPA

Project leader:
Royal Albania Foundation

Year: 2015



MedPAN's small project

Illegal, unreported and unregulated fishing is the greatest threat to Karaburun-Sazan National Park's ecosystem. In this MPA, the main environmental damage caused by illegal fishing is from neighbouring coastal villages, whose inhabitants are engaged in intensive illegal fishing due to a high demand from tourists. The project's main objective was to protect biodiversity and raise fishers's awareness on sustainable fishing and create the right conditions to set up a no-take zone. In the long term, the project aims to encourage the creation of coastal fishing co-management models in the MPA, based on reliable scientific data



Fishers's involvement

This project enabled a good collaboration with fishers and numerous workshops were organised to raise their awareness, present the project's results, and identify measures for sustainable artisanal fishing. Awareness raising is essential in projects involving fishers.

Publication of a good practices handbook on sustainable fishing in Albanian MPAs

In this good practices' handbook, all the essential guidelines for fisheries management and habitat conservation are explained in order to initiate a process for improving artisanal fishing in the Karaburun-Sazan MPA. Several recommendations are also made: improving fisheries research and monitoring in MPAs, developing close collaboration between the managing authority and scientists, involving fishers in management practices, encouraging fishers to participate in research programmes.

Collecting fishing data in the field

A system for monitoring local fishing both inside and outside the MPA was developed to collect relevant data needed to assess the MPA's impact on the fish populations and to assist the decision-making process. A lot of data was collected: the species composition, target species' sizes, catch per unit effort (CPUE), type of fishing, hooks and mesh size, type of fishing vessels, length, engine power, fishing time, area, and depth ...

Data collection began in July 2015 and was done every 10 days, weather permitting. 17 ships were analysed during the project (including the 4 boats from the port of Radhima). A detailed report: "report on fishing activities in the MPA of Karaburun-Sazan" presents the study's results.



Moving towards creating a reserve around Sazan island

As a result of the study and, in particular, the report on fishing activities, a consensus emerged between the Regional Manager of Protected Areas, fishers and scientists on the need to create a marine reserve around Sazan Island, following the Blue Coast marine park's model, with possibly installing artificial reefs at a depth of 10-20m, in order to control trawling around the island.

TO MAKE
EVEN
FURTHER
PROGRESS

FOR MORE
INFORMATION

Good practices and lessons learned

Artisanal fishers are eager to help and are part of the solution. It is essential to involve them in the MPA's management.

It is important to show fishers examples of MPAs where co-management is already in place and has achieved results (field visits).

Transferable tools to MPAs in the MedPAN network

- The good practices handbook

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Create a label for artisanal fishery products



Country: Tunisia

MPA in question:
Cap Negro/Cap Serrat MCPA

Project leader:
Tunisian Association for the Development of Artisanal Fisheries

Year: 2015



Context

Artisanal fishing in Tunisia is a subsistence activity using traditional techniques that respect the natural environment. Employing more than 70% of the workforce in the fisheries sector (42 000 artisanal fishers), artisanal fisheries have contributed over 50% of the value of domestic production over the years.

Artisanal fishing operates in the lagoons and along the coastal strip using 11,000 fishing vessels (92% of the national fishing fleet) and produces only 30 thousand tons (30% of the domestic production).

Despite this, the artisanal fisheries sector lacks the recognition it deserves. It remains marginalised or excluded by many organizations responsible for developing policy-making. Moreover, the artisanal activity is confronted to fisheries resources' gradual decline, as it competes with industrial fishing, which operates in the same areas, on the same resources for the same markets, but in totally disproportionate conditions (source: ATDEPA).

In addition, the Cap Negro - Cap Serrat Marine and Coastal Protected Area is subject to progressive degradation, causing problems for the MCPA's conservation and development, both on an environmental and socio-economic level.

MedPAN's small project

The project falls within a safeguarding the ecological heritage context, based on managing sensitive areas and adopting the principles of sustainable development in order to improve food safety based on true quality criteria. The project is aimed at promoting socio-economic development and integrating artisanal fisheries and ecotourism sectors in the Cape Negro - Cap Serrat MCPA. The latter has an added value of promoting networking in the MCPA's zone and creating a new relationship between consumers and fishers by establishing direct retail outlets and promoting the "Blue Artisan Club" label throughout the MCPA.



Membership in the Tunisian Association for the Development of Artisanal Fisheries (ATDEPA)

ATDEPA is a non-profit development association, created on September 24, 2011. Its mission is to improve the sustainable livelihoods of targeted artisanal fishing communities while respecting the ecosystems they exploit. It also contributes to improving these communities' positive integration into the dynamics that directly affect them, particularly fisheries management and coastal zones' development. The project has enabled a membership of 23 fishers (15 were initially forecasted). This fishers group has helped them to get preferential prices on equipment bought in bulk now ("wholesale" and no longer by unit per fishers) for example.

A building for local fishers

The association leased a building from Sidi Mecherg. This place was used for the fishers to meet up, for training and assistance purposes; to popularise good practices, highlight the value of artisanal fishery products and promote eco-tourism in the area. It was equipped with storage equipment and fish promotion materials. Since the project has ended, the premises are no longer available and a new place is being sought.



Training on «sustainable fisheries: an introduction to good fishing practices»

A training course for fishers was organised to raise their awareness on the need to use rational fishing methods and involve them in fisheries management. This two day fishing technique training course ended with certificates being given to participating fishers. The lessons learned from this training are the following:

- Great interest from fishers in the training course.
- From a technical point of view, very different levels in fitting fishing nets.
- Difficulties in using electronic devices required for fishing, particularly the depth sounder and GPS.
- Demand for more training courses



Promoting and enhancing their natural heritage and local products

Tourist walking tours have been organised to promote local products. Fishers's families, women and children were involved in preparing meals and selling local products (bread, honey, eggs, olives, shell necklaces, medicinal plants, ingredients, lentisk/mastic oil, farm chickens, etc.), thus providing supplementary income for the fishers and their families.



The label

Fishers who are members of the "Blue Artisan Club" network have benefited from a number of services like ice, storage, handling, transport and directly selling their fish products to restaurants and hotels at fixed prices (set by themselves per species, size and over a three-month period). This allowed them to increase their activity's profits as they could directly negotiate prices with the restaurant owners rather than it being imposed by an intermediary.



An agreement with a telephone operator

An agreement with the telephone operator, Tunisie Telecom, was set up for fishers who are members of the association. As a result of this agreement, these fishers were able to benefit from preferential fees and a relay antenna was installed, the Sidi Mecherg zone previously had no mobile telephone network.

TO MAKE
EVEN
FURTHER
PROGRESS

Good practices and lessons learned

Be flexible and available for fishers.

It is very important to communicate regularly with fishers. We must also speak "their language".

As far as possible, provide solutions to their needs or incentives.

Enhance other local activities and local products (honey, olives ...)

Transferable tools to MPAs in the MedPAN network

- Although not developed within this project, establishing a label could be transferred to other MPAs where artisanal fishing is an important activity. A multi-MPA label could also be created with neighbouring countries
- Creating a short and integrated supply and demand chain linking artisanal fishers and restaurants,
- Promotional and marketing actions on domestic and international markets.
- Agreement between the association and Tunisie Telecom

FOR MORE
INFORMATION

Skandrani Yassine: skandraniyassine@yahoo.fr

Tunisian Association for the Development of Artisanal Fisheries (ATDEPA):
<http://artisanalfishing.org.tn>

Club Bleu Artisanal: <http://www.clubartisanal.eu/>

REINFORCE KNOWLEDGE TO IMPROVE MANAGEMENT

It is essential to know the MPA's characteristics, habitats, species populations, uses and socio-economic observations in order to make management decisions.

Two projects fall under this theme: the Gaiola Underwater Park project in Naples (Italy), whose aim was to gain knowledge in order to place the MPA better in an integrated coastal zone management context and the Goköva MPA project aimed at understanding groupers' behaviour better to ensure an improved management of its populations



REINFORCE KNOWLEDGE TO IMPROVE
MANAGEMENT

A better understanding of the MPA's environment to achieve integrated management



Country: Italy

MPA in question:
Parc Marin de Gaiola, Naples

Project leader:
Centro Studi Interdisciplinari Gaiola onlus

Year: 2014



Context

The Gaiola MPA covers 42 hectares and is the smallest MPA in Italy. It is located in Naples' densely populated urban area and is part of a 9 km coastal landscape that extends from Cape Posillipo to the southern part of Nisida Island, of which only 2.3 km are located within the MPA (i.e. less than 1/3 of the total coastal zone). This Posillipo coastline is experiencing intense urbanization, which has an impact on the whole coastline. Initially created to preserve the underwater archaeological heritage, the park's seabed has a great geomorphological and biological diversity. This seabed has been studied since 2005 within the MPA (biological and geo-archaeological studies), but the surrounding areas, which play an important role due to the MPA's small size, are still little known.

MedPAN's small project

The project's overall objective is to reinforce knowledge on the entire coastal zone, in and around the MPA, in order to provide decision-making factors and tools for integrated coastal zone management and the MPA's extension; with a view of incorporating this coast's remaining natural spaces and nearby remarkable areas (such as Cavallara's dry rock, whose coralligenous biocenoses are included in the RAC/SPA's biocenoses to be protected inventory). The aims are:

- Knowledge-building on the physical, biological and social-economic elements: geomorphology, archaeology, mesology; knowledge of benthic biocenoses, terrestrial fauna and flora; anthropogenic activities affecting the Park;
- to highlight results by developing management tools (geographic information system and methodological guide on protocols used during the project).

The objective is to produce integrated mapping and documents useful to the MPA's management body and local authorities as a tool to develop an integrated coastal zone management plan



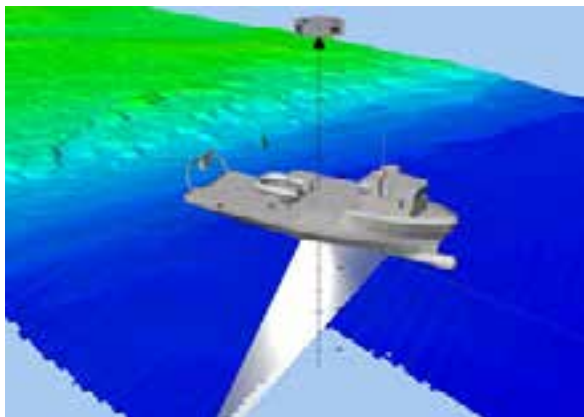
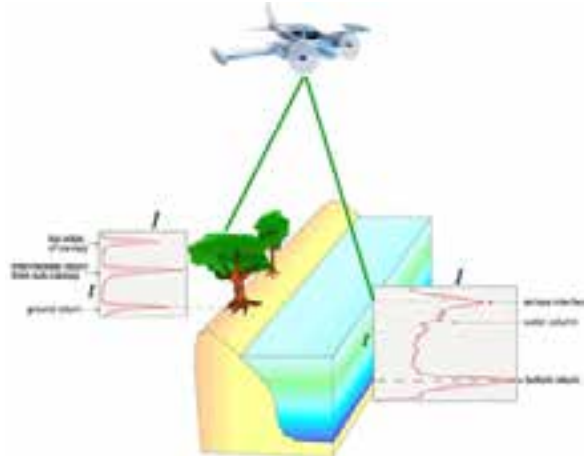


Figure 13
The different methods used to study the seabed
(a) LIDAR for the emerged area; multilateral sonar
for underwater geomorphology (b and c)

Significant knowledge-building within the MPA, but also of its surrounding environment

The **bathymetric and geomorphological studies** of the seabed and emerged areas have made it possible to propose a basic geomorphological layer. Several methods were used:

- for the emerged zone: LIDAR campaign archives (image 1), coastal observations from the open sea;
- - for underwater geomorphology: multilateral sonar, digital terrain model and diving observations.

L'analyse des couches SIG produites a conduit à l'identification de 11 unités géomorphologiques. C'est sur cette base que toutes les autres recherches ont été programmées.



Figure 14
The 11 geomorphological units



Figure 15
Distribution of marine biocenoses

The **marine biocenosis studies**, using a simple, low-cost and easily transferable method for other monitorings, have contributed to a better understanding of the distribution and conservation status of biocenoses, priority habitats and protected species;



Figure 16
Distribution of avifauna

Ornithological monitoring. This study made it possible to make an inventory on 46 species of which 27 are passeriformes (63%) for the winter populations.

The study of the terrestrial flora the terrestrial flora made it possible to draw up the first *Limonium cumanum* distribution map, an endemic species on the Posillipo coastline.

Increased knowledge on activities in the area, through field surveys:

- nautical activities (number of users and anchoring areas),
- seaside activities (numbers, knowledge of the MPA, satisfaction survey)
- fishing activities: fishing areas, methods and intervention against poaching.

This research enabled to draft 8 thematic reports, including methodological protocols that can be used by other MPAs as appropriate.

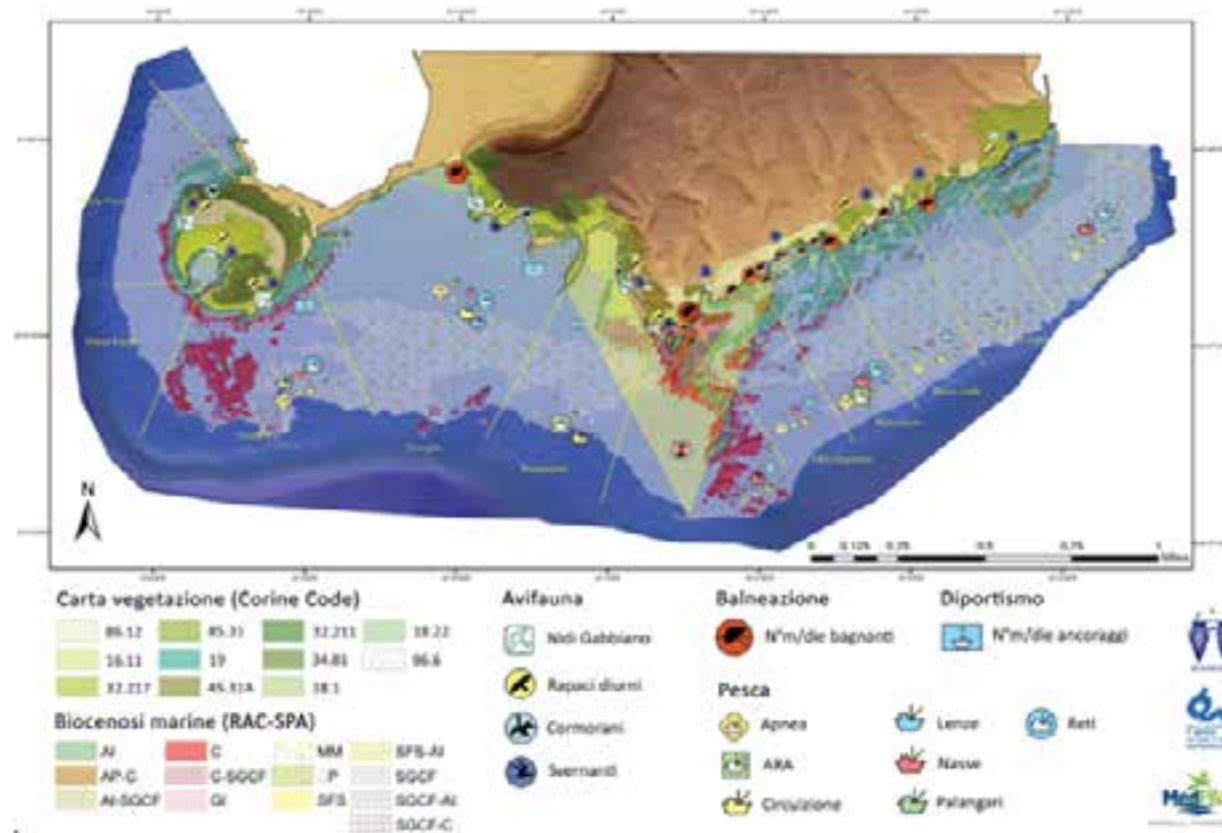


Figure 18
summary map of various thematic



GIS as a planning tool

A geographical information system of the study area was produced as a basic tool for ICZM in the area; maps produced from GIS are a good management tool and a basis on which to build monitoring and surveillance activities.

This research's results and the maps developed from the GIS give the Park's authorities factors to manage its activities more sustainably. The "biocenoses" and "human activities" layer crossings make it possible to identify the areas of greatest impact - (vulnerable zones).

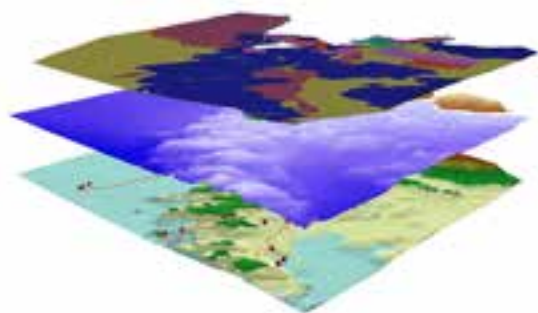


Figure 17
Overlay of GIS layers (top) for integrated mapping (bottom)

TO MAKE
EVEN
FURTHER
PROGRESS

Good practices and lessons learned

Working with public authorities takes time; this must be taken into account when creating the project.

The project's "timing" must take into account the fact that the summer season is a very busy time for MPAs; it is better to plan to finalise the project in the autumn/winter.

Transferable tools to MPAs in the MedPAN network

- Methodological protocols included in scientific reports

FOR MORE
INFORMATION

Centro Studi Interdisciplinari Gaiola onlus: **Caterina De Vivo** <caterina.devivo@gmail.com>
<http://www.gaiola.org/>

REINFORCE KNOWLEDGE TO IMPROVE
MANAGEMENT

Identify resources: on the groupers' trail



Country: Turkey

MPA in question:

Baie de Gökova (English Bay NTZ)

Project leader:

Mediterranean Conservation Society

Year: 2015



Context

Gökova Bay was declared a Special Environmental Protection Area (SEPA) in 1988. Tourism and a dynamic fishing activity in the Bay are important means of subsistence (about 100 professional boats and 3 cooperatives). Following the collapse of important target species, including the grouper (5 species in the bay, 3 of which are fished¹), six no-take zones (NTZs) were established in 2010, of which 2 were subsequently extended, including "English Bay", this project's location. The Mediterranean Conservation Society (MCS) has been monitoring these zones for 3 years now, with the local fishing communities (3 cooperatives, 5 rangers recruited by MCS) and the Coast Guards. Today, grouper populations are increasing due to enforcing these NTZs for several years.

Waste also puts pressure on the environment, including lost "ghost nets" or them being left on the spot by fishers, which can create problems for marine organisms caught in these nets

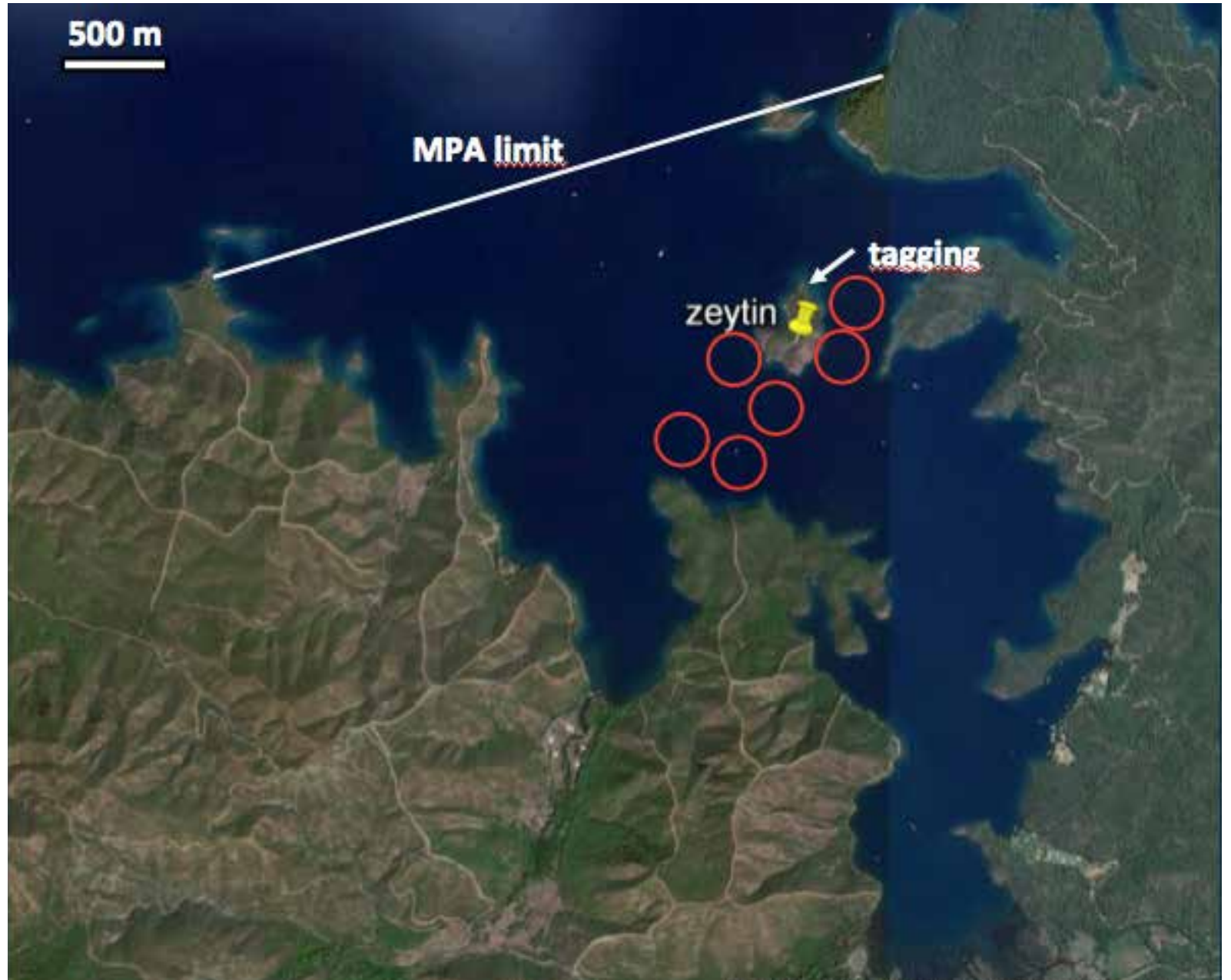
MedPAN's small project

The project aims to provide baseline data on the groupers' spatial and temporal behaviour to improve the management of these species' fishing activity. The project is based on the eCATE² programme developed by the University of Perpignan. The secondary objective is to clean the grouper's habitats, particularly by eliminating "ghost" nets, and to raise stakeholders' awareness on these issues.

¹ White grouper (*Epinephelus aeneus*), brown grouper (*Epinephelus marginatus*), on the IUCN Red List, *E. costae* (Goldblotch Grouper - Data Deficient Species on the IUCN Red List).

² The eCATE programme (<http://crem.univ-perp.fr/projet-ecate>) aims to understand better the renewal process of emblematic fish species' populations that are socio-economically and ecologically important along the Catalan's coast cross-border area.

Figure 20
Receptors' location in
English Bay's NTZ (Goköva
MPA)



Studying the groupers' movements

In order to provide scientific evidence to enable appropriate decision-making on managing the grouper species, a study of individual grouper's movements in and around the MPA was suggested. The study area is English Bay which is one of the 6 no-take zones in Gökova Bay. The project leader was first trained on the method of acoustic tagging at the Marine Ecosystem Research Centre (CREM) at the University of Perpignan with eCATE programme managers.

Six sites were equipped with receptors, at a depth of between 12 and 18 m, and 5 E. costae individuals were tagged. The receptors were meant to be installed in and around the MPA to monitor the groupers' migration, but in the end could only be installed in the MPA itself. Signals were collected from the receptors' 300 m perimeter over 7 months.

The first results give some indication of tagged groupers' movements: 2 individuals released in a different zone from their capture returned to the original zone in less than 2 days; the other three did not move.

All this information was disseminated at the Ministry of Food, Agriculture and Livestock and the International Grouper Workshop meetings held in Turkey on 7th and 8th October 2016. It was suggested that there is a need for appropriate monitoring using a multidisciplinary approach in order to make a decision on management objectives.

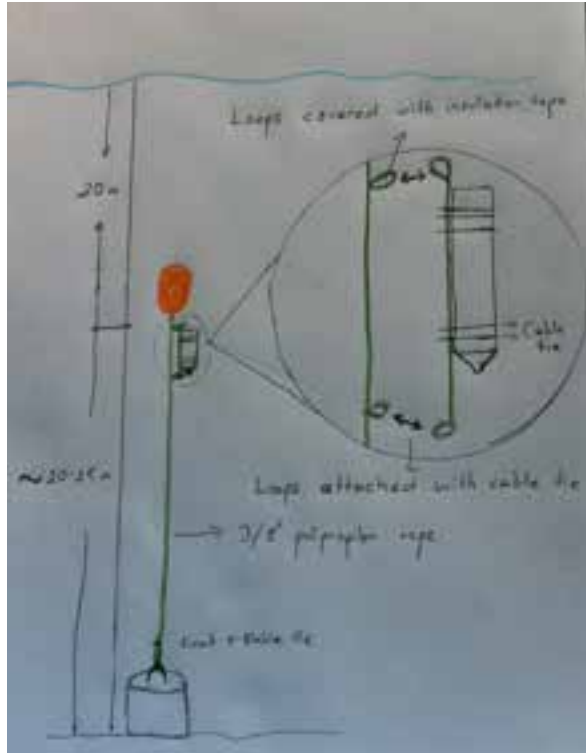
In August 2016, the government enacted regulations prohibiting any grouper fishing in the bay, including commercial species such as the white grouper, *E. aeneus*, which is worrying fishers as they are an important source of income for them. The decision to ban fishing is based on collected national landings data and therefore not necessarily adapted to this specific bay. The work begun by MCS should make it possible to provide interesting data for decision-making.

Acoustic tagging, a modern fish tagging method

(source <http://crem.univ-perp.fr/projet-ecate/>)

Before the start of any fish tagging campaign, one must be able to catch and release them in perfect health in order to ensure that their subsequent movements are not different from untagged fish. The fish are caught by hook by scuba divers. The tagged fish are then detected by a network of receptors installed in the study area. These receptors are taken out of the water once a year in order to collect the data and change their batteries.





Eliminate "ghost" nets

A cleaning operation in English Bay was carried out to eliminate ghost nets in particular. A "Ghost Net Hunters" Facebook page was created to share information on current operations (<https://www.facebook.com/Hayalet-A%C4%9F-Avc%C4%B1lar%C4%B1-Ghost-Net-Hunters-140904289407250/>).

TO MAKE EVEN FURTHER PROGRESS

Good practices and lessons learned

Have a long term view, but start small

Do not overestimate objectives and outcomes

Do not depend too much on volunteers

Always have a plan B

Be aware of regulatory constraints before drafting the project proposal

Ensure key activities can be implemented by the core team in the timeframe, instead of relying on volunteers

Transferable tools to MPAs in the MedPAN network

- The acoustic monitoring method used by e-CATE and implemented in Gökova can be used in every Mediterranean MPA.
- The Mediterranean telemetry network idea is suggested by the eCATE project

FOR MORE INFORMATION

Mediterranean Conservation Society – MCS (akdeniz koruma derneği)

Z. Dery YILDIRIM: zderya.yildirim@gmail.com

Website: <http://www.akdenizkoruma.org.tr/>



USE NEW TECHNOLOGIES TO IMPROVE MANAGEMENT AND GIVE INFORMATION

Marine protected areas need to be better publicised and promoted. In return, they must also improve their services and what they offer in order to increase public awareness. Indeed, one of the marine protected areas' objectives is that the general public (tourists and locals), school children, but also local socio-professionals and decision-makers discover and understand the natural terrestrial and marine environment in and around the MPA, and its problems, with the aim of raising their awareness on the importance of preserving the natural environment, as well as understand the MPAs human and economic issues. Moreover, a number of actions in the Roadmap "Towards a Mediterranean network of connected Marine Protected Areas, ecologically representative and managed in an efficient and sustainable way by 2020" underline the importance of communication and developing communicative and awareness raising activities targeting local populations, visitors, schools, fishers, policy-makers, donors, etc. As well as, encouraging the creation of income-generating activities based on information and communication technologies (such as mobile technologies to inform and guide the general public) through pilot actions linked to MPAs.

Two projects were clearly aimed at these environmental educational and awareness raising objectives, using new Information and Communication Technologies (ICT), namely:

- Developing a smartphone application (in support of an existing MPA).
- Developing a website (in support of the creation of a new MPA),



REINFORCE KNOWLEDGE TO IMPROVE
MANAGEMENT

App the island: a smartphone application to discover the MPA



Country: Italy

MPA in question:
Bergeggi

Project leader:
Ricerca Sviluppo Tecnologie Appropriate R.S.T.A.
scrl

Year: 2014



Context

So far, most MPA awareness raising actions aimed at the general public have focused on creating brochures, sign posting and newsletters. As new technologies develop and the extensive public access they provide, especially younger generations, creating new applications becomes a means of reaching the general public.

MedPAN's small project

The project's aim was to design a smartphone application, offering Bergeggi MPA visitors a tool to enable them to have a more enjoyable and educational experience. The application helps users to discover the MPA's marine ecosystem, with fairly detailed descriptions of about 90 species. In addition, it also offers a description of the underwater trails (5 in total). Once in the sea, it allows visitors to make observations on species.



The application's development

The application development and testing phase were the longest steps in this project.

In practical terms, the application's general structure and logo were designed. It was coded and tested on different platforms. A simple interface was developed, consisting of 3 buttons to control the whole application underwater. A lot of work was done on the nature database linked to the software enabling to operate the system. Existing images and new photos were integrated into the new database (with the MPA's collaboration).

The application was tested underwater in January and April 2015. This test was also an opportunity to work on the underwater trails, plot positions with a GPS and describe the natural environment's characteristics. Finally, "App the island" was tested by users in May 2015. The last step was to have it validated by Apple teams.

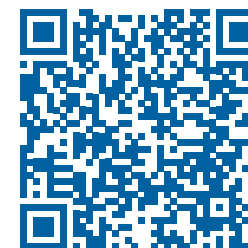


The content

The application contains a detailed description of approximately 90 species with photos: description of species, size, habitat, depth, diet ... and indicates whether the species is thermophilic, dangerous or protected.

The application also describes the 5 underwater trails

The app is only available in Italian on Apple's App Store:



Participatory science

L'application permet également d'impliquer les visiteurs qui peuvent soumettre leurs observations. Les citoyens sont ainsi mis à contribution pour collecter des données, et participent au suivi de l'AMP. Les visiteurs deviennent ainsi des observateurs de la biodiversité. Cet apport des citoyens à la connaissance scientifique est aujourd'hui indispensable.

The first results

The application was put online in mid-summer, on 6th August 2015. By the end of the 2015 summer, it had been downloaded 261 times.

291 observations were submitted on 47 species (90% in the MPA and 10% outside).

TO MAKE
EVEN
FURTHER
PROGRESS

Good practices and lessons learned

Lessons learned on how to develop a smartphone application and the necessary steps to be taken (as well as time required), including the contents and functions that would have been interesting to include (invasive species for example).

Offer a tutorial so that novice users can learn how to use the application independently.

Transferable tools to MPAs in the MedPAN network

- The application could be fairly easily transferred and adapted to other marine protected areas.

FOR MORE
INFORMATION

Ricerca Sviluppo Tecnologie Appropriate: **Andrea Molinari** - presidenza@rsta.info

The application:

<https://itunes.apple.com/it/app/apptheisland/id1011184033?l=en&mt=8>

Scuola di Robotica: <http://www.scuoladirobotica.it>



REINFORCE KNOWLEDGE TO IMPROVE
MANAGEMENT

Internet website - Montenegro database on marine and coastal protected areas



Country: Montenegro

MPA in question:

Ratac, Katic, Platamuni, Stari Ulcinj (future MPAs)

Project leader:

Mediterranean center for environmental monitoring
(MedCEM)

Year: 2014



Context

Montenegro is the last Mediterranean country (except Bosnia and Herzegovina) without any established MPAs, even though some of these areas are already partially protected by national legislation. Today, Montenegro's economy is based on tourism; maritime tourism is developing rapidly and exerting strong pressure on marine resources. It is important to raise current and future users' awareness and educate them on the marine environment (both inside and outside MPAs), taking into account the use of new technologies.

MedPAN's small project

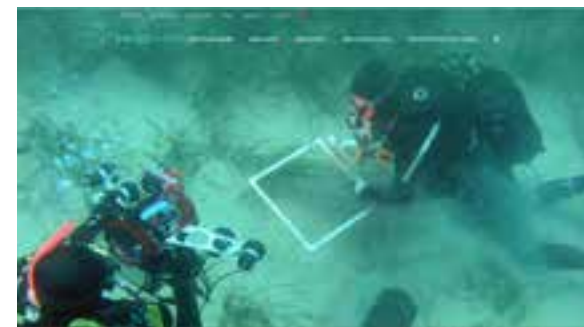
In order to facilitate management planning from an integrated coastal zone management (ICZM) point of view, this project aimed to create a website containing all the available data, current status and ongoing activities linked to Montenegro's marine and coastal protected areas' current environmental situation.

Bibliographic research for data collection

An extensive data collection from various sources was carried out by looking at available documents and databases in Montenegro, and meeting various stakeholders (Institute of Marine Biology, Soho Resort Hotel (Ratac), Bar Municipality, diving clubs ...). Emphasis was placed on existing scientific results and research, the situation on the ground ... In total over 500 photographs, 100 scientific articles and gray literature, 50 documents, some twenty videos and maps were collected.

And Field missions

In addition to bibliographic research, field missions (about 20 dives) were done to collect information on protected, invasive species (*Posidonia oceanica*, *Pinna nobilis* and *Caulerpa cylindracea*).



<http://mne-mpa.org>

A true mine of bilingual information

This bilingual website gives stakeholders access to important data on the current situation, the environment and nature conservation efforts. It provides crucial information to regional, international institutions and the network of managers on the Montenegrin marine and coastal protected areas' current situation.

It will therefore provide a better understanding of the general situation and, at the same time, will be a way of raising awareness on the urgent needs required to protect the marine ecosystems.



A catalyst for the creation of MPAs?

The project hopes to contribute to accelerating the creation of marine protected areas in Montenegro, to networking interested players and to create a good base for Montenegrin MPAs future management.

Creating an informal network of enthusiasts/practitioners

The project's implementation was possible thanks to a large number of stakeholders being involved (MedCEM staff, students and volunteers, supervised by a representative from the Institute of Marine Biology (IBMK). This informal network of enthusiasts/practitioners (stakeholders interested in the topic) which will be very useful later on for Montenegrin MPAs future management.

TO MAKE
EVEN
FURTHER
PROGRESS

FOR MORE
INFORMATION

Good practices and lessons learned

The key lessons learned in this project are mainly technical ones: choice of the content management system (CMS), choice of contractor, etc. The other point concerns developing the web interface (content): you have to take your time and think about the content.

Transferable tools to MPAs in the MedPAN network

- The project leader could share his experience with network members who are interested in developing a website.

Project leader: **Varda Dusan** (vardad@yahoo.com)

Website: <http://mne-mpa.org>

Mediterranean Center For Environmental Monitoring (MedCEM): <http://medcem.org/>





PART 4

Conclusions

MedPAN's CSPs have funded 13 small projects, many of which are particularly noteworthy given the means deployed, and at least 4 of which are of interest to the MedPAN network as a whole.

Most projects have been very successful, with forecasted results mostly achieved, even in some difficult situations. Several projects have a high local added value, by particularly contributing to the development or improvement of the MPA's management plan. But many projects also brought added value to the MedPAN network as a whole and/or tools and experiences which deserve to be disseminated:

- Work done on recreational fishing (Cap de Creus and Montgrí Natural Parks, Medes Islands and Baix Ter, Spain projects), and the Code of Conduct, the label and information brochures can be used by other MPAs (subject to some minor adaptations and translation) and the main exotic bait supplier's approach must be continued with French MPAs support.
- Turkey's Gökova MPA experience on enhancing the value of exotic species is also transferable to other Mediterranean MPAs (Eastern Mediterranean) in similar situations: the cooking recipes can be translated; the tasting festival idea can be transposed. Exchanges with Kas-Kekova MPA are already planned.
- The whale watching label, together with the code of good conduct for responsible practice, is also exportable, initially to other countries in the Pelagos Sanctuary and then beyond, in any country/MPA where whale and other marine mammals observation is done (with adaptations).
- The carrying capacity study done in the Palm Islands Nature Reserve in Lebanon may be interesting for other MPAs, from a methodological point of view.
- The smartphone application developed in the Bergeggi MPA, Italy can be an inspiration to other MPAs, and particularly the participatory science part.

- Although both developed on a local level, the code of good practices for artisanal fisheries, developed in the Gouraya National Park in Algeria and the agreement with fishers, within the Strunjan Nature Reserve project's framework in Slovenia, should be shared. Indeed, these documents will no doubt be useful to other project leaders in the future.
- The Tyre Coast (Lebanon) underwater trail project's business plan may also be useful to other MPAs.

The Montenegro and Gaiola projects in Italy provide crucial information about the MPAs in question's current situation, to enable informed decision-making by local authorities.

These projects also created exchanges between MPAs in the MedPAN network: Gouraya National Park, Algeria with the Port-Cros National Park (France) on the underwater trails topic; the Tyre project (Lebanon) with the Cerbère-Banyuls Marine Nature Reserve, the Gökova MPA in Turkey, which developed a partnership with the University of Perpignan to help them develop the grouper tagging and tracking method....

Several projects have also been very effective in mobilising local stakeholders and developing partnerships:

- Normandy Appats Iberica's commitment, a major bait supplier on a European scale and bait vendors and fishers associations' commitment (Cap de Creus project, Montgri, Spain);
- whale watching operators' commitment to more sustainable practices in Pelagos Sanctuary's French part of (Pelagos project, France);
- fishers's commitment to sustainable fishing in several MPAs (Albania, Tunisia, Slovenia, Turkey) and tourism operators' commitment (Lebanon).

Finally, several approaches are innovative on a Mediterranean scale: work done on recreational fishing and exotic baits, activities to enhance the value of exotic species, the smartphone application presenting the MPA and involving users in giving their observations.

In conclusion, the 2014 and 2015 CSPs are a success. The small projects are very effective and have, for the most part, yielded concrete results on the ground, useful for management, mobilising numerous players/stakeholders, creating local level synergies and raising awareness on marine protected areas ... Most of them are very efficient with interesting results in view of the sums invested. They are required, and often enable to initiate actions that would not otherwise have found funding. They reinforce the feeling of belonging to a network, even if there are still too few exchanges between MPAs, they reinforce MedPAN's position which according to all the players interviewed has a very good image, they are all grateful, besides the funding received, for the secretariat's availability and effectiveness.

ACRONYMS

AC

Advisory Committee

ACCOBAMS

Agreement on the Conservation of Cetaceans in the Black Sea Mediterranean Sea and Contiguous Atlantic Area

APAL

Agence de Protection et d'Aménagement du Littoral (Tunisia)

ARESMAR

Association pour les REcherches Sous MARines en Roussillon (France)

ATDEPA

Association Tunisienne pour le Développement de la Pêche Artisanale (Tunisia)

BoD

Board of Directors

CEN-PACA

Conservatoire d'espaces naturels de Provence-Alpes-Côte d'Azur (France)

CEPF

Critical Ecosystem Partnership Fund

CSIC

Consejo Superior de Investigaciones Científicas (Spain)

CSP

Call for Small Project

EU

European Union

FAO

Food and Agriculture Organisation

FFEM

French Fund for the world environment

GIS

Geographical Information System

ICZM

Integrated Coastal Zone Management

MedCEM

Mediterranean Center for Environmental Monitoring (Monténégro)

MedPAN

Network of Marine Protected Area managers in the Mediterranean

MPA

Marine Protected Area

NP

National Park

NR

Natural Reserve

NTZ

No Take Zone

PA

Protected Area

PINR

Palm islands nature reserve (Lebanon)

PPI-OSCAN

Small Initiatives Programme for Civil Society Organisations in North Africa

RAF

Royal Albania Foundation (Albanie)

RSTA

Ricerca Sviluppo Tecnologia Appropriate (Italie)

SC

Scientific Committee

SPAMI

Specially Protected Area of Mediterranean Importance

TCNR

Tyre Coast Nature Reserve (Liban)

The MedPAN collection

The MedPAN collection is a series of tools and user-friendly guidebooks that can provide guidance and build capacity on key issues that managers of Marine Protected Areas (MPA) in the Mediterranean have to confront daily.

The MedPAN collection is fully adapted to the Mediterranean context and is peer reviewed by MPA managers and experts of the region. It gathers tools and guidebooks developed by key players in the Mediterranean under a unified look and feel.

The MedPAN collection is an initiative of several Mediterranean partners, including SPA/RAC, WWF, IUCN Mediterranean, MedPAN, ACCOBAMS, the French MPA Agency and the Conservatoire du littoral. It is edited by MedPAN, the network of MPA managers in the Mediterranean.



The Network of Marine Protected Areas Managers in The Mediterranean

www.medpan.org