Sustainable financing of Marine Protected Areas in the Mediterranean

A guide for MPA managers
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Publication Lead

**MedPAN**

Since 1990, the MedPAN network has brought together the managers of Mediterranean Marine Protected Areas (MPAs) and supported them in their management activities. A legally independent structure since 2008, MedPAN aims to promote the establishment, operation and sustainability of the MPA network. Currently, the MedPAN association has 8 founding members, 51 members (MPA managers) and 37 partners (from activities related to MPA management) in 18 Mediterranean countries.

> www.medpan.org

**RAC/SPA**

The Regional Activity Centre for Specially Protected Areas (RAC/SPA) was founded in Tunis in 1985 by the Contracting Parties to the Barcelona Convention, which entrusted it with responsibility for assessing the natural heritage situation and assisting Mediterranean countries in implementing the Protocol concerning Specially Protected Areas and Biological Diversity in the Mediterranean (SPA/BD Protocol), which came into force in 1999.

> www.rac-spa.org/fr

**WWF**

The World Wide Fund for Nature (WWF) is one of the world’s leading conservation organisations. Its mission is to stop the degradation of our planet’s natural environment, and build a future in which humans live in harmony with nature. Through its Mediterranean Initiative, WWF has been actively involved in promoting the establishment and effective management of Marine Protected Areas in the Mediterranean for many years.

> mediterranean.panda.org
Technical partners

Vertigo Lab

Created in 2011, Vertigo Lab is a think-and-do-tank specialized in environmental management, policy and economics. It works from local scale to European-wide and international institutions for the conservation of biodiversity and ecosystem services. Vertigo works in valuation, analysis, expertise and consulting and training for both public and private organizations (do-tank). It is particularly interested in developing specific economic tool for the sustainable management of ecosystems or the valuation of public policies or private companies’ strategy. The tools developed are of particular interest to assist decision-making (advocacy, trade-offs, cost-effectiveness assessment, new strategies development, etc.).

> www.vertigolab.eu
Financial partners

MAVA foundation

Dr Luc Hoffmann established MAVA in 1994 as an expression of his long personal commitment to conservation. MAVA is a family-led, Swiss-based philanthropic foundation with an exclusive focus on the conservation of biodiversity. Its focal regions are the Alpine Arc and Switzerland, the Mediterranean Basin and Coastal West Africa.

> fr.mava-foundation.org

French Global Environment Facility (FFEM)

Working to support French cooperation and development policy for global environmental protection, the French Global Environmental Facility (FGEF) provides grants to sustainable development projects in areas relevant to the multilateral agreements on the environment signed by France. The FGEF is an instrument of French cooperation and development policy in the areas of climate change, biodiversity, international waters, land degradation (including desertification and deforestation), persistent organic pollutants and protection of the ozone layer.

> www.ffem.fr

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

The Regional Activity Centre for Specially Protected Areas (RAC/SPA) was established in Tunis in 1985 by decision of the Contracting Parties to the Barcelona Convention, which entrusted it with responsibility for assessing the situation of natural heritage and assisting the Mediterranean countries to implement the Protocol concerning Specially Protected Areas and Biological Diversity in the Mediterranean (SPA/BD Protocol), which came into force in 1999. This guide is financed through the MedMPAnet Project which is implemented in the framework of the UNEP/MAP-GEF MedPartnership, with the financial support of EC, AECID and FFEM.

> www.rac-spa.org
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> mediterranean.panda.org

French Marine Protected Areas Agency (AAMP)

The French Agence des Aires Marines Protégées is a public establishment of an administrative nature created by the law of 14 April 2006 and placed under the governance of the Ministry of Ecology, Sustainable Development, Transport, and Housing. It’s dedicated to the protection of the marine environment. The main assignments of the Agence des Aires Marines Protégées are supporting public policies for the creation and management of marine protected areas in the entirety of French maritime waters, running the MPA network, technical and financial support of natural marine parks, reinforcing French potential in international negotiations concerning the sea.

> www.aires-marines.com
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<tr>
<td>AAMP</td>
<td>French Marine Protected Areas Agency</td>
<td>ACCOBAMS</td>
<td>Agreement on the Conservation of Cetaceans of the Black Sea, Mediterranean Sea and contiguous Atlantic area</td>
</tr>
<tr>
<td>CBD</td>
<td>Convention on Biological Diversity</td>
<td>CDIA</td>
<td>Common Database on Designated Areas (European protected-area database)</td>
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<tr>
<td>CdL</td>
<td>Conservatoire du Littoral (French coastal protection agency)</td>
<td>CIESM</td>
<td>Mediterranean Science Commission</td>
</tr>
<tr>
<td>COP</td>
<td>Conference of the Parties</td>
<td>EC</td>
<td>European Commission</td>
</tr>
<tr>
<td>EEZ</td>
<td>Exclusive Economic Zone</td>
<td>EU</td>
<td>European Union</td>
</tr>
<tr>
<td>FAO</td>
<td>United Nations Food and Agriculture Organisation</td>
<td>FFEM</td>
<td>French Global Environment Facility</td>
</tr>
<tr>
<td>GDP</td>
<td>Gross Domestic Product</td>
<td>GEF</td>
<td>Global Environment Facility</td>
</tr>
<tr>
<td>GFCM</td>
<td>General Fisheries Commission for the Mediterranean</td>
<td>ICZM</td>
<td>Integrated Coastal Zone Management</td>
</tr>
<tr>
<td>IUCN</td>
<td>International Union for the Conservation of Nature</td>
<td>LAC</td>
<td>Latin America and the Caribbean</td>
</tr>
<tr>
<td>MAIA</td>
<td>Network of Marine Protected Areas in the Atlantic</td>
<td>MedPAN</td>
<td>Network of Mediterranean Marine Protected Area managers</td>
</tr>
<tr>
<td>MAP</td>
<td>Mediterranean Action Plan</td>
<td>MPA</td>
<td>Marine Protected Area</td>
</tr>
<tr>
<td>ODA</td>
<td>Official Development Assistance</td>
<td>PA</td>
<td>Protected Area</td>
</tr>
<tr>
<td>PPP</td>
<td>Purchasing Power Parity</td>
<td>RAC/SPA</td>
<td>Regional Activity Centre for Specially Protected Areas</td>
</tr>
<tr>
<td>R &amp; D</td>
<td>Research and Development</td>
<td>SPA/BD</td>
<td>Specially Protected Areas and Biological Diversity</td>
</tr>
<tr>
<td>UNDP</td>
<td>United Nations Development Programme</td>
<td>UNEP</td>
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<td>WCPA</td>
<td>World Commission on Protected Areas</td>
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PART I

Presentation
1. Regional context and needs

Mediterranean Governments have renewed their commitment to the objectives of the Barcelona Convention, while some Mediterranean MPAs still suffer from financial difficulties in covering just their recurring management costs, especially in non-European countries.

Today, the financial resources for MPAs mainly come from:
- National public funds;
- Official bilateral cooperation and GEF trust fund;
- Sub-regional projects (e.g. MedPartnership);
- European financial instruments, such as the LIFE programme;
- Private funds (Foundations);
- Local financing mechanisms for some MPAs; and
- Self-generated revenues.

This wide variety of financing sources hides a persistent lack of financial resources to enable MPAs to perform in an effective way. It has been estimated that of the 677 existing Mediterranean MPAs, several hundred have no proper budget and financial plans (Gabrié et al., 2012). More precisely, 64% of MPA managers interviewed during the assessment project carried out by Vertigo Lab in 2015 report a financial gap that prevents them from effectively implementing their management plans. MPA managers need to set up financial strategies to strengthen and sustain their conservation activities over time.

2. Objectives

This guide aims to provide MPA managers and national authorities with tools and a step-by-step approach for the development and implementation of financial strategies. It provides useful practical knowledge for improving managers’ financial planning skills, as well as guidance on potential sources of funding which may supplement current funding, including innovative financial mechanisms.

The guide addresses strategic objective 3 of the Mediterranean Marine Protected Areas network roadmap: “Develop Mediterranean MPAs governance which is integrated on a territorial level and with the other sectors while promoting the sharing of environmental and socioeconomic benefits”\(^1\).

Specifically, the guide focuses on the following objectives:
- Recognising the need to integrate a financial strategy within MPA management documents;
- Learning about the various steps in developing a business plan and subsequent means to covering any financing gaps identified;
- Reviewing the various methods of reducing costs, optimising current revenues or developing new sources of revenue;
- Promoting the financial strategy to partners and decision-makers.

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3. Our approach

This guide has been specifically designed for Mediterranean MPA managers and tailored to their needs. It seeks to provide readers with the best information for developing the financial strategy of their MPA and identifying successful financing mechanisms. It deliberately avoids unnecessary theoretical economic background and concentrates instead on pragmatic information and practical tools. However, it does not simply focus on innovative and unrealistic financing tools. Instead, it considers financing mechanisms as one way of bridging the financial gap in an MPA as part of an overall long-term financial strategy once the more common options (such as cost reduction and development of existing funding) have been implemented.

4. Guide recipients

The guide could be used by a range of stakeholders involved in MPA management and, more specifically, the authorities in charge of MPAs at a national and local level. It aims to assist these authorities in identifying opportunities for financing their MPA. It should also be a useful instrument for authorities and stakeholders involved in management activities at individual sites, including those responsible for the development of management plans. The guide provides new ideas for financing various activities with different sources of funding.
LES AMÉNAGEMENTS DE LA PLAGE DE PEYREFITE

L’aménagement de la plage de Peyrefite a été possible grâce à la concertation entre la CG66 et les communes de Céraw et de Banyuls. Les travaux sont financés par la CG66, les communes de Céraw et de Banyuls. État entre le Conseil Régional.

Ces aménagements permettent de préserver les richesses du patrimoine naturel marin et littoral tout en offrant une qualité d’accueil du point de vue du confort, de la sécurité, et de la sensibilisation.

**Les Aménagements**

- **Postes de surveillance**
  Les aménagements ont été réalisés en tenant compte de la qualité de la vue. Les postes de surveillance ont été placés en fonction de la localisation des différents aménagements. Les aménagements ont été réalisés en tenant compte de la qualité de la vue.

- **Élaboration d’un plan de sécurité**
  Les postes de surveillance ont été placés en fonction de la localisation des différents aménagements. Les aménagements ont été réalisés en tenant compte de la qualité de la vue.

- **Élaboration d’un plan d’information**
  Les postes de surveillance ont été placés en fonction de la localisation des différents aménagements. Les aménagements ont été réalisés en tenant compte de la qualité de la vue.

- **Élaboration d’un plan de sensibilisation**
  Les postes de surveillance ont été placés en fonction de la localisation des différents aménagements. Les aménagements ont été réalisés en tenant compte de la qualité de la vue.

Pour un résultat exceptionnel !
PART II

MPA financial strategy development

The set-up of an underwater trail is an investment cost that must be carefully planned © M. Mabari / MedPAN
1. MPA and finance

Environmentalists have always had some aversion to business and finance. Unlike companies, the objectives of protected areas do not revolve around profitability, but rather around environmental benefits, the protection of endangered species and the promotion of a sustainable exploitation of natural resources. Indicators also differ a great deal from those of companies: added value, cost-effectiveness, prices, efficiency and profit margins are replaced by biomass indexes, species diversity, water indicators, etc. Environmentalists also fiercely oppose any attempt to reconcile nature and finance. For them, nature is priceless and finance is likely to have negative effects on the marketing of natural assets.

For us, this is clear: **conservation should not be thought of as a business.** However, we have to recognise that we have failed to protect our ecosystems. The rate of species extinction is at an all-time high; all policy objectives to stop the loss of biodiversity have failed. Worse still, the economic crisis is now threatening the environmental objectives pursued by Governments, as they prioritise employment, purchasing power, debt reduction and growth instead of biodiversity conservation, environmental management and ecological transition.

Against a widespread backdrop of scarcer financial resources for biodiversity management and weaker political support, **we need to rethink our way of managing the environment.** We have to operate management in a cost-effective way, diversify our revenue sources, advocate for the benefits we provide to local populations, engage with stakeholders and share the efforts of conservation, etc.

To survive, MPAs need to be run as a company in a challenging economic context – rationalise costs and diversify revenues, while maintaining their conservation targets. Most MPAs have management plans that include strategic goals. But they should also develop a financial strategy that details how these goals will be attained.

**When it comes to finance, manage your MPA “as a business”. Think efficiency, goals, and strategy.**

This guide provides the necessary tools and information for managers to develop their financial strategy and better channel their costs and revenues toward fulfilling their environmental objectives.
2. What is financial planning for MPAs?

Drawing a parallel with the business sector will help illustrate the need for financial planning in MPAs by showing how a business approach makes it possible to achieve strategic goals and objectives for MPAs. Business strategy does not just involve increasing revenues. It also involves building the capacity to manage resources well, meet the needs of diverse and changing stakeholders and do this both now and into the foreseeable future.

With regard to MPAs, which are mostly under public management, financial planning is more complex than in the private sector because the objective of the MPA “business” is not to make profit, but rather to provide ecological benefits, managing resource use in a sustainable way while supporting local development. But customers and products could also be defined for MPAs: the MPA provides goods and services (“products”) to users (“customers”).

To ensure the MPA achieves its objectives and delivers ecological benefits, constant and sustainable funding is necessary. However, this is not the reality for most MPAs. MPA revenues vary a lot over time, and mainly depend on short-term sources of financing to fully implement management plans. Financial resources may go up in cases of international cooperation and go down in periods of financial scarcity. International cooperation financing is allocated on a project basis, with an average timeframe of 4 years. This generates “breaking points” and can place the MPA in a tricky situation. The figure below illustrates this situation.

Make your MPA revenues stable and sustainable: Build a long-term financial strategy.

MPA revenues should be as stable as possible over the long term to avoid these situations. Maintaining a steady situation should be the aim, as illustrated in the red curve on the figure below. If MPA revenues are volatile, as in most cases, a financial strategy needs to be put in place (Figure 1).

Figure 1: Variation in MPA revenues over the long term
3. Successfully planning a financial strategy for your MPA

### 3.1 A DEMAND-DRIVEN STRATEGY

Most business models are based on the likely demand for the goods and services a company provides. To this end, the company analyses its position on the market of goods and services. Based on the likely demand for its products, the firm then defines its strategy of supply with the most cost-effective option. MPAs should basically follow the same scheme, with the only difference being that goods and services are environmental benefits.

In practice, the environmental targets should be set first and the resources needed to attain these targets defined later. In other words, MPA managers first define their environmental strategic objectives and associated management measures. Then, they should think about how to cover these needs for management and their associated costs. We think that, in order to be effective, **available resources should not lead the definition of management activities**. Thus, the definition of the financial strategy should be demand-driven and based on the environmental objectives, and not the contrary.

### 3.2 FINANCIAL STRATEGY IS NOT JUST ABOUT REVENUE TOTALS

As mentioned above, financial strategy does not only consist of looking for income but also involves building an overall long-term financial strategy. A number of experienced managers choose to see business planning as a component of management planning – costs are directly associated with specific activities aimed at achieving the MPAs’ objectives (Box 1). This serves to remind managers of the primary objective of business planning, namely the effective management of the MPA, i.e. the funding of activities defined in the management plan as essential to achieve the MPAs’ environmental, social and economic objectives.

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**BOX 1**

**RECONNECTING MANAGEMENT PLANNING AND BUSINESS PLANNING: THE TELAŠČICA 2012-2022 STRATEGY PLAN – CROATIA**

In Telašćica nature park (Croatia), the 2012-2022 management plan also includes the business plan for the main activities and objectives covering the MPA’s main themes. Selected themes can be applied to other MPAs:

- Preservation and conservation of natural values and landscape;
- Preservation, protection and promotion of cultural and historical heritage seagrass meadows;
- Supporting the local community and sustainable use of natural resources;
- Managing the Public Institution; and
- Managing visits, education and guided activities.
Objectives are also associated with indicators that can be monitored to determine whether goals have been achieved.

### EXAMPLE

#### THEMES

- Protection and conservation of natural values and landscapes

#### Goals

- Preserve and protect valuable marine and terrestrial habitats, species and unique landscapes through the promotion, regulation and sustainable use of natural resources

#### Objectives

- Maintain or increase fish populations from the original baseline data provided by the monitoring plan

#### Indicators

- Catch per unit effort; weight and size of individual species in experimental catches; number, size and species measured by visual census

#### Activities

Implement regular monitoring of fish populations:

<table>
<thead>
<tr>
<th>Implement indicators</th>
<th>Collaboration</th>
<th>Plan implementation (year)</th>
</tr>
</thead>
<tbody>
<tr>
<td>annual monitoring report</td>
<td>Institute for Oceanography and Fisheries</td>
<td>1 2 3 4 5 6 7 8 9 10</td>
</tr>
<tr>
<td></td>
<td>Expert Service of Teléática Nature Park</td>
<td>5-year review</td>
</tr>
<tr>
<td></td>
<td>Subcontractors</td>
<td>5-year review</td>
</tr>
</tbody>
</table>

The next element of the management plan details the medium-term financial plan. Primarily, this is developed to cover large investments, assess financing priorities and adapt for wrong estimates. As an illustration, annual visitor numbers were underestimated. However, this observation allowed managers to justify the need for additional resources to be allocated to visitor reception in the following years by readjusting financial projections.

The figure below presents the proportion of total budget required to implement management plan actions according to each theme (average for 10 years).
The comments above assume that MPAs have developed their management plans and defined clear objectives and associated activities to be implemented. Management planning is a precondition for ensuring the sustainability of the financial strategy.

**A clear management strategy, through an operational management plan, is a precondition for a sustainable financial strategy.**

### 3.3 KEY RECOMMENDATIONS FOR STARTING FINANCIAL PLANNING

Knowing total revenues for financial strategy planning is of course necessary, but not sufficient. A range of elements and issues must be considered in planning a long-term financial strategy, including (IUCN, 2006):

**Financial strategy is not only about revenues but also:**
- **Diversity of funds**
- **Allocation of funds**
- **Risk and fluctuation.**

**Building a diverse, stable and secure revenue portfolio:** minimise funding risks and variations of revenues (Box 2)

**Improving financial administration and effectiveness:** ensuring that funding is allocated and spent in a way that supports MPA finance needs and conservation goals

**Taking a comprehensive view of costs and benefits:** covering the full range of MPA costs, ensuring that those who bear MPA costs are recognised and adequately compensated, and that those who benefit from MPAs make a fair contribution to their maintenance.

**Creating an enabling financial and economic framework:** overcoming market, price and policy distortions that undermine MPAs or act as obstacles to MPA financing.

**Mainstreaming and building capacity to use financial tools and mechanisms:** factoring financial analysis and mechanisms into PA planning processes.
Brijuni National Park provides an example of a self-financed MPA based mostly on tourism incomes. The Park was supported by the State through salaries up to 2014, but in 2015 the Park is fully self-financed from day trip entrance fees and accommodation in hotels and villas owned by the Park (organisation of conventions, weddings, holidays). Other considerable income is generated through boat moorings, diving fees, boat trips by private agencies, projects, selling of goods (souvenirs, ice cream, restaurants), etc.

To reach this level of self-financing, an MPA has to be managed as both an MPA and a company at the same time. To be successful it is important to make a “brand” out of the MPA activity with added value for visitors. The MPA is always looking to develop new forms of partnership to gain visibility and recognition among the main visitor attractions. However, it still makes sure that it is open to all members of the public. It prioritises foreign tourism during peak season, but significantly reduces its prices off season and organises events (cinema and music festival, marathons, etc.) so that Croatian nationals can also enjoy the island.

When you have to manage hotels and restaurants you risk losing focus: our focus needs to be on nature protection and all the other things that really matter in protected areas.

Sandro Dujmović, Directeur du Parc national de Brijuni (Croatia)
4. Financial planning: main steps

In practice, financial planning should follow a three-step procedure:

- **Assessment:** assessment of costs and revenues for achieving management plan objectives, calculation of financing gap
- **Strategise:** assessment of feasibility of addressing financing gap
- **Implement:** formulation and implementation of financial strategies through a coherent financial plan.

The detailed steps of this framework are set out in the figure below.

As shown in the figure, building a financial strategy is an iterative process. The strategy is revised until the financing gap is zero (green box). Only when the gap is zero can the financial strategy be validated. The main instrument for developing an MPA financial strategy is the business plan (blue box). It enables managers to evaluate the financing gap of their MPA project, based on the management plan. A business plan model tool, developed by Vertigo Lab, will be presented in chapter 3.

If the financing gap evaluated is positive, the strategy is not acceptable and three options remain to bridge the financing gap and make it null: reduce the costs, improve existing sources of revenues or develop new sources of revenue. These options will be further developed in chapter 4.
Financial planning: main steps
PART III

Business planning

Boats represent an important investment cost
© M. Mabari / MedPAN
In the standard business world, the business plan is designed to help bankers decide if a project is financially viable and if the investment will be cost-effective and generate revenue. Business plans for MPAs do not focus on return on investment but rather on environmental performance. They are an internal management tool for maximising environmental performance for a limited level of resources.

The business plan, as shown in the previous chapter, revolves around the following main steps:

- Plan for future costs;
- Evaluate current and future revenues; and
- Assess the financial gap.

Related information is compiled in the business plan (Box 3).

A business plan (BP) model tool which structures each step of the business plan development process will be introduced in part 3 of the guide. This tool, called MedPLAN, is available to MPA managers and can be downloaded from the virtual library of MedPAN’s website. It can be used to develop the business plan (2). This BP tool, developed by Vertigo Lab, should simplify the compilation and aggregation of financial data necessary for the assessment of MPA costs and needs.

**NEW BUSINESS MODEL FOR THE PRESERVATION OF THE SECOVLJE SALINA NATURE PARK IN SLOVENIA**

The Sečovlje Nature Park developed an innovative business approach. Due to a difficult economic situation on the European salt market, the production of salt in Secovlje Salina almost ceased. In 2003, two years after its designation as a Nature Park, the salt making company (Soline d.o.o.) was bought by the telecommunications company Mobitel to protect the natural and cultural heritage and landscape and maintain traditional salt production. This business model based on a premium product and the protection of wetlands was a “win-win” experience: investments resulted in maintenance of the salt works and subsequent natural benefits on the one hand; the telecommunications company has greatly improved its environmental image on the other hand (Sovinc, 2009).

The 2010 Secovlje Nature Park business plan estimated total needs up to 965,469 euros per year for the basic conservation of the park and up to 1,414,864 euros per year for its optimal conservation. Since annual financing by Mobitel only covered one third of optimal management needs, the financial strategy proposed solutions to cover this gap. An estimated increase of 500,000 euros in annual revenue was achieved (WWF, 2010) based on:

- Market-based mechanisms: entry fee system, concession opportunities, issuing of a stamp series;
- Non-market based mechanisms: tax deductible donations, Nature Parks Trust Fund, green-venture capital, spare currency donation boxes,

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2 http://www.medpan.org/documents/10180/0/MedPLAN+-+Financial+planning/3529b37c-3010-4921-99c1-18ef5a089557
The table below presents the estimated annual revenue from the key financial mechanisms.

<table>
<thead>
<tr>
<th>PROPOSED FINANCIAL MECHANISMS</th>
<th>ESTIMATED ADDITIONAL ANNUAL REVENUE IN EURO (THOUSANDS)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Entry fees ans passes</td>
<td>121,829</td>
</tr>
<tr>
<td>Mud-bath concession</td>
<td>17,903</td>
</tr>
<tr>
<td>(25 % of estimated revenue)</td>
<td></td>
</tr>
<tr>
<td>Biodiversity postal stamp</td>
<td>286,350</td>
</tr>
<tr>
<td>Trust fund</td>
<td>100,000</td>
</tr>
<tr>
<td>(10 % of estimate, option A : 1.1)</td>
<td></td>
</tr>
<tr>
<td>Donation boxes</td>
<td>25,000</td>
</tr>
<tr>
<td>TOTAL</td>
<td>555,082</td>
</tr>
</tbody>
</table>

1. Plan future costs

As a demand-driven approach, the first step in finance planning is to assess the future MPA costs necessary to achieve the objectives of the management plan. All activities planned to achieve the MPA strategic objectives should be listed and the costs associated with these activities should be evaluated. This should be done each year over the period needed for the achievement of the strategic objectives (minimum 5 years).

**A detailed management plan is essential for starting a financial strategy.**

1.1 IDENTIFY MAIN PROGRAMMES AND MANAGEMENT ACTIVITIES

It is first necessary to define the various activities of the MPA as part of the management plan. The costs are then evaluated for each activity incurring expenses. Table 1 defines main programmes and activities of MPAs (adapted from The Nature Conservancy website).
### 1.2 IDENTIFY RESOURCE NEEDS AND COSTS FOR EACH MANAGEMENT ACTIVITY

Then, for each of the above-mentioned functional areas, the practical needs are defined. These are expressed in terms of expenditure items (number of employees required, cars, buildings, etc.). Then, these items are multiplied by the unit costs (cost of a full time employee, car price, etc.) and finally added all together to evaluate the total cost. To estimate these costs, the costs incurred over past years can help.

All the data collected must be detailed in sheets such as the one in Table 2. The aim is to evaluate the cost of every activity necessary to reach all the objectives of the management plan. This needs to be done on a long-term basis (at least 5 years).
<table>
<thead>
<tr>
<th>Area 1: Resource Management and Protection</th>
<th>$y_0$</th>
<th>...</th>
<th>$y_n$</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Recurrent costs</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Human resources</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Permanent staff</td>
<td>Administrative staff</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Field staff</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Scientific staff</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Short-term and seasonal staff</td>
<td>Administrative staff</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Field staff</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Scientific staff</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Maintenance</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Offices rent/maintenance</td>
<td>Local office and visitor centre rent</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Local office and visitor centre maintenance</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Other</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Vehicular maintenance and fuel</td>
<td>Boat fuel</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Boat maintenance</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Car fuel</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Car maintenance</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Utilities</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Water</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Electricity</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Communications (Internet, etc.)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Basic equipment</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>GPS devices, boots, uniforms, torches, etc.</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Investment costs</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Material resources</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>New equipment purchases</td>
<td>Boats</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Cars</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Scuba diving equipment</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Other</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Local infrastructure purchases</td>
<td>Local offices for management authority staff</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Local visitor centre</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Demarcation buoys</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Hiking paths</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Other</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Studies</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Scientific studies</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Socio-economic assessments</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Regular ecological monitoring</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Management plan definition</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Business plan definition</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Management plan updates</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Business plan updates</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Education</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Public training and environmental education</td>
<td>Conferences and meetings</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Exhibits</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Other</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Staff training</td>
<td>External training</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Internal training</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Remediation of the quality of ecosystems</strong></td>
<td>Restoration</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Rehabilitation</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Compensation for local players (including activities generating alternative incomes and buying out fishermen)</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 2: Use of resources and costs per year ($y_0$, $y_1$, ..., $y_n$)
We will now provide you with more detailed instructions for filling in MedPLAN\(^3\), the business plan (BP) tool developed by Vertigo Lab. We will proceed step by step making use of the information indicated previously.

The BP tool includes several sheets. The “Presentation” sheet must first be filled in with the name of the MPA, the name of the manager, the first year of the plan, the duration of the business plan and the currency. **Always press RESET before changing start year and duration.**

Start with the “Recurrent Costs data” sheet. This includes three tables for the three types of recurrent costs: human resources, maintenance, and annual costs for facilities and equipment.

The first table is staff costs. It is composed of a “permanent staff” part and a “short-term staff” part. The “Average contract duration” column only refers to short-term staff.

- Fill in the existing average wage per month and per person, for each category of MPA employee.
- Fill in the existing number of MPA employees for each category. Note that you do not take into account the employees of external companies.

These cells are related to new costs. If you are likely to increase staff, fill in the number of new people you need to recruit and the year from which you need them.

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\(^3\) [http://www.medplan.org/documents/10180/0/MedPLAN+-+Financial+planning/3529b37c-3010-4921-99c1-18ef5a089557](http://www.medplan.org/documents/10180/0/MedPLAN+-+Financial+planning/3529b37c-3010-4921-99c1-18ef5a089557)
The second table of the “Recurrent costs” sheet is about maintenance costs:

Fill in the frequency of the expense and the cost per task (for facilities maintenance) or per unit (for boats and cars). These costs may include staff from external companies, cleaning for instance.

Fill in the annual percentage increase (+) or decrease (-) for each cost. This depends on your management plan investments. For instance if you increase marine monitoring, boat fuel costs will increase; if the number of cars doubles, fuel costs will increase by +100%.

The last table is the annual costs of utilities and equipment: fill it in using invoices from over the last year.

Press “Enter” and move to the “Recurrent costs” sheet.

This sheet is automatically filled in. It sums up the recurrent costs for the entire selected period.

The recurrent costs are now planned. Move to the “Investment costs” sheet.

The “Investment costs” sheet is the table of investment, spread out over material resources, studies, education, remediation of the quality of ecosystems, and compensation for local players.
With regard to investment costs, it is important to pick the right year for when costs are incurred. These investments will have a key role in creating (or limiting) the financial gap on specific years. Since you are setting up a long-term financial strategy, expenditure should be considered over the entire period. You can then approve investments depending on a priority level that integrates both the difficulty inherent in the investment and expected benefits.

<table>
<thead>
<tr>
<th>Level of difficulty</th>
<th>Benefits (social, environmental, economic)</th>
</tr>
</thead>
<tbody>
<tr>
<td>LOW</td>
<td>Low priority</td>
</tr>
<tr>
<td></td>
<td>Implement when feasible</td>
</tr>
<tr>
<td>HIGH</td>
<td>Implement in long-term</td>
</tr>
<tr>
<td></td>
<td>Implement immediately</td>
</tr>
</tbody>
</table>

Figure 3 : Investment priority level
(Source: Business Planning for Protected Areas, Conservation Finance Guide)

All the costs have now been analysed and planned. Press “ENTER” and move to the following section.
The second step of financial planning deals with MPA revenues. It is important to consider the total amount of revenue for the MPA and break it down by source. The table below can help provide an initial general overview of these revenues. You need not only to consider the year before your evaluation but previous years as well, for which you have information. This will enable you to evaluate the trend in revenue and record past investments and their occurrence (this helps you know how many years a boat can be used, for instance).

**Table 3: General overview of MPA revenues**

<table>
<thead>
<tr>
<th>Main Sources of Revenue</th>
<th>Y:N</th>
<th>Y₀</th>
<th>Local Currency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Local government</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Regional government</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>National government</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>International donors and NGOs</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Private sector</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Self-generated streams (entry fees, fees on leisure activities...)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other sources of revenue, details:</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
This table provides extremely useful assistance in planning future revenues, if supplemented by qualitative information, including:

1. What is the quality of the partnership between the MPA and the revenue source?

2. What are the payment details: multiyear contract, annual subsidy, subject to variations every year, etc.?

3. Is there any condition attached to the partnership and subsequent payment?

4. According to these conditions, what is the risk associated with its non-fulfilment?

The financial strategy presented should include all these elements as an assessment of the current situation and past changes.

3. Plan future revenues

Once past revenues have been detailed, the next step involves planning for future medium-term revenues (same period as defined for costs assessment).

As found by the assessment led by Vertigo Lab⁴, current funding for Mediterranean MPAs comes to a large extent from:

- Government subsidies;
- Self-generated revenues;
- Projects and funding from IGO/NGOs;
- Private funds.

### 3.1 PLANNING GOVERNMENT FINANCIAL SUPPORT

From the current situation observed with regard to national expenditures for MPAs in the Mediterranean (Binet et al., 2015), central Governments may allocate public funding based on the financial needs submitted by each local MPA. National authorities validate the information and transfer set financial resources to the managers of the corresponding MPA. The validation process implies the formalisation of cost-effective management plans, showing cost control over time.

Central Governments may decide to use their operating budget to support operating costs of MPAs. The budget allocated is used for staff salaries, the production of management plans and survey of new extensions, for instance. Central Governments may also use their operating budget to support activities related to inspections, monitoring and scientific research that reduce the financial burden on MPAs.

Managers of MPAs need to have a strategic approach towards public funding by setting priorities based on cost structures that make better use of the available, sometimes limited, resources.

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Local and regional financing opportunities may also be another alternative. Local and regional funding is allocated most of the time on a project basis and requires dialogue and negotiation with local and regional stakeholders.

### 3.2 PLANNING SELF-GENERATED REVENUES

Self-generated revenues include revenues from taxes, entrance fees, concession rights, and licences, from tourism and other economic sectors (fishing in the first instance). The turnover of these streams for the MPA now and in the future needs to be gauged (and also the net benefits – turnover minus all expenses). Forecast revenue from tourism must take into consideration the annual increase of tourist numbers based on past visitor numbers, but also the increase of taxes and fees. Forecast revenue for activities such as fishing should anticipate changes in fisheries over time and the willingness of fishermen to access MPA waters (as well as their willingness to pay the tax or licence implemented).

**BOX 4**

**PLANNING REVENUES BRIJUNI NATIONAL PARK**

In Brijuni National Park, the revenues expected for the coming year and on which the planned expenses are based are always carefully scrutinised. For Sandro Dujmović, Director of the Park, it is very important to remain ambitious about revenue targets. However, he also takes into account the economic context and competition over tourism activities. Mr Dujmović and his team consider the recent development of apartments on the mainland and the current economic crisis in the EU as the key barriers to revenue increase. For 2015, he planned for a decrease of revenue of 1 to 3%, and adapted the planned activities and expenses accordingly.

### 3.3 PLANNING FUNDING FROM DONORS AND NGOs

Donors and NGOs are funding sources for some specific projects. These funds vary a lot over time and an accurate project planning process is needed to foresee new financial opportunities. In the Mediterranean, the assessment of bilateral cooperation showed strong variability in financial support from international cooperation. The financial resources devoted to Marine Protected Areas are committed on a project basis and within the financial programming cycle. Once a project is over, the associated financial resources come to an end as well. An accurate project planning process is needed to foresee new financial opportunities in order to continue to move forward.

MPA managers must maintain excellent relations with national authorities in charge of international cooperation as well as with donors in order to understand their strategic priorities and evaluate their future financial contribution with them, while ensuring that these remain consistent with MPA management objectives.

In addition, specific projects can provide excess funds for the project period, with varying repayment deadlines. This can create: 1) a large budget overdraft and place the MPA in a bad financial situation if not anticipated; 2) financial problems at the end of the project and the phasing out of funding.
3.4 PLANNING PRIVATE SECTOR CONTRIBUTION

It is important here to assess the quality of partnership with the company. There are two important questions to ask: what are the expected outcomes for the company? Is the partnership compromising the targeted environmental objectives?

Most companies would like a high profile to be given to their contribution to the MPA. For this reason, it may be appropriate to dedicate this contribution to a specific project with a high public profile (habitat restoration, underwater trail, etc.). However, private sector contributions to recurrent expenses and basic management should be avoided.

3.5 FILL IN THE BUSINESS PLAN

All revenues must be summed up in the “Revenues” sheet:

Fill in the revenues from public grants and NGOs at local, regional and national scales. Revenues must be filled in for each year.

Fill in the information about self-financing (for instance park entries): average price and number of visitors per year.

Fill in the predicted average increase of the fee expressed as a percentage. Note that it is an annual increase which will be applied for every year of the business plan.

Press “ENTER” and move to the following section.
4. Assess financial gap

Once the costs and revenues are evaluated for the planned period, the financial gap is given on the business plan, for each year of planning. The financial gap is the difference between planned resources and planned needs (and associated costs). The financial gap can be expressed in percentage of revenues or costs in order to assess the efforts required to bridge the gap. This will be useful for identifying what needs to be done from a range of options including cost cuts, improvement of current revenues, and the need to develop new financing mechanisms.

The following describes how to calculate the financial gap (if any) in your MPA. The “Costs and Revenues Summary” sheet will be automatically filled in, based on information provided in the sheets above. It contains a table with all the costs and revenues information. You can change the rows displayed by clicking on the + and – icons on the left, which change the level of detail.

Several charts are drawn at the bottom of the sheet:
This chart is the proportion of recurrent costs (in green) and investment costs (in purple) for the entire period.

This chart is a graphical representation of the financing gap for the entire period. On the left, revenues (green) are displayed against needs (red). The new revenues are still 0% because this is only the assessment step. The comparison between revenues and needs is expressed as a percentage. In this example, the “secured revenues” which already exist cover only 66% of the needs, or to put it another way, the financing needs are 152% of secured revenues.

On the right, the gap is represented as the difference between financing needs and financial means. In the example above, the gap is negative, which means that revenues do not cover expenses for the whole period. However, depending on the year, the gap can vary, as shown in the last chart:
The line is the representation of the financial gap over the years. In this example, the gap is highly negative the first year because of a huge investment and phases out the following years to a constant.

Usually, the gap will be negative overall after the first pass. The objective will then be to modify costs and revenue sheets to get a zero gap.
PART IV
Bridging the financial gap

Scientific monitoring activities are operational costs that need to be planned for © Z. Kizilkaya
The international community is strongly committed to funding MPAs. In the Mediterranean region, MPAs received financial support amounting to $37,193,373, channelled through bilateral official development assistance, the GEF, the EU LIFE programs and international IGO/NGO investments (over the period of 2010–2014) (Binet et al., 2015). However, institutional weaknesses and political instabilities, especially in the south of the Mediterranean, accentuate the financial vulnerability of Marine Protected Areas.

As for national budgets, they have remained at a constant level, which may mean they have failed to keep up with the fast expansion of MPAs.

On their own, both national and international funds cannot always produce long-term sustainable conservation outcomes for MPAs. Other options for bridging the financial gap therefore need to be considered.

1. Cost reduction

The first option and easiest option for reducing the financial gap is to plan cuts in planned costs. This reduction builds on the cost-effectiveness strategies developed by the private sector. Some actions per item of expenditure are detailed below.

1.1 INVESTMENT

- Review the priority of each investment and avoid any unnecessary investment;
- Assess conditions for extending the lifetime of the investment.

1.2 STAFF

What can you do with limited resources, time and capacity to efficiently manage your MPA? Any business can face problems in human resources management that can lead to additional costs for the organisation: duplication and omission of activities, inequitable share of work and responsibility but also lack of safety for workers, etc. (Science for MPA management, 2015). To help them evaluate the human resources needed to cover all activities, or assess the effectiveness of their staff, some MPA managers have developed credible and ethical monitoring programmes which involve MPA staff or even external research institutions in monitoring their activities in the MPA using validated protocols (Box 5).

Also:
- Before considering the recruitment of new staff, ensure that all employees have well-defined job descriptions and a full-time occupation over the year;
- Developing a culture of objectives and results within teams can indirectly help in limiting expenses;
- Consider delegating and consider MPA management as a horizontal (each staff member has a responsibility and works with self-defined objectives and self-assessment of efficiency) rather than a vertical approach (several layers of hierarchy that require reporting to all layers can be highly time-consuming).
To facilitate the training of its managers and effectively organise and streamline the work of its staff, Cabrera national park has developed an operation manual of tasks describing different types of Protocols for maintenance, surveillance and interpretation. Sixty-seven tasks or activities were identified as implemented on the MPA across 11 areas: cleaning, power station maintenance, vehicle maintenance, boat maintenance, other mechanical maintenance tasks, water, plumbing and carpentry, other maintenance, transport, maritime maintenance, botanical garden, other.

Information for each task (e.g. description of activities, task duration) is then reported in a template sheet. The 67 template sheets are then gathered in an Excel tool that calculates time spent daily, monthly or annually on each task and areas. These results are used to: 1) organise staff according to time required for each activity and 2) provide staff with an accurate description of activities required for the efficient management of the MPA.

1.3 OPERATIONS

As for operations cost cuts, it is important to focus efforts on reducing the largest expense items. A close look at fuel expenditure, which is often one of the major sources of expense, is always worthwhile. Savings can easily be made through car or boat sharing for different missions, the purchase of electric cars or boats, a better routing of patrols and the optimisation of eco-warden housing.

In Croatia, MPAs have benefited from a national opportunity to purchase electric cars. In most countries, the Government provides support to buy electric vehicles or energy-saving housing hardware. Always keep an eye out for such opportunities.

1.4 ADDITIONAL COSTS FOR CARRYING OUT ACTIVITIES

In order to avoid creating additional costs, it is vital to carry out as many Management Plan activities as possible with the team in place and limit outsourcing to external staff. Of course, specific experts are often essential, and the quality of results on the ground should always remain the priority.

Though necessary for effective management of MPAs, complete monitoring can be expensive (materials, trained staff, logistics). Monitoring programmes can be regarded as ‘early warning systems’ to identify trends and alert managers on drifts towards dangerous thresholds. Without regular monitoring, managers are unlikely to be aware of what is happening in their MPAs and their surroundings and will only be able to react once damage has been produced, often too late to counter it.
Identifying key research needs to streamline monitoring efforts and publishing research priorities so that researchers can undertake the activities most useful to MPA management is likely to reduce the unavoidable financial ‘burden’ of monitoring for MPA managers (Science for MPA management, 2015).

**Identifying key research needs to streamline monitoring and communicating about these needs among the scientific community are is likely to reduce unavoidable costs of monitoring.**

### 1.5 PARTNERSHIP TO MAXIMISE BENEFITS AND MINIMISE COSTS

In order to develop partnerships on a local basis, look for scientific organisations which would be able to share data about ecological monitoring, or would be interested in rental of offices or housing, etc.

**Scientific partnerships**

Some MPA management agencies have established partnerships with universities and research centres. These partnerships provide professional, sustainable and cost-effective information to MPA managers for long-term monitoring programmes. Some of this research may involve some ‘voluntary’ work by new graduates seeking to gain some professional experience. In exchange, MPA administrations grant researchers use of their facilities and/or provide them with accommodation for the duration of the study (Science for MPA management, 2015).

**A GOOD DEAL: SCANDOLA NATURAL RESERVE PARTNERSHIP – FRANCE**

Thanks to its notoriety, the Scandola natural reserve attracts scientists that are prepared to carry out studies for lower costs: while costs for scientific monitoring missions can reach up to 30,000–50,000 euros, the average cost for a scientific mission on Scandola is around 3,000–5,000 euros (8,500 euros maximum). This is a win-win scenario: monitoring costs less and scientists benefit from a great field for their investigations.

**Citizen partnership**

In a difficult financial context, citizen science initiatives have recently received greater attention as a cost-effective way to collect data on the environment. Local residents, users (e.g. fishermen, divers, etc.) and regular visitors to some MPAs are getting more and more involved in the collection of data that can be valuable for the monitoring of MPAs if collected following a defined protocol and within a clear framework. Well-designed citizen science programmes can provide more complete information than the information gathered by professionals in the marine environment for some variables like the number of marine species detected. However, different results between volunteer and professional monitoring protocols have been recorded for some other variables (Holt et al., 2013), suggesting that different protocols should be developed depending on the variables of interest (Science for MPA management, 2015).
In the Strunjan Park, fish monitoring is undertaken with the help of local fishermen. In exchange for their time and the use of their boat and fishing gear, the MPA team pay fishermen a fee of 500 euros per day and purchase new fishing gear. Renting a boat and participates in the purchase of new fishing gear. Not only does this practice help reduce costs, but it builds confidence between the MPA team and local fishermen. To raise awareness of the project among fishermen, seminars are held by Strunjan Park managers to promote sustainable management of artisanal fisheries in Strunjan Landscape Park and the diversity of fish arising from this protection tool.

However, volunteer-based monitoring approaches should not be regarded as a default option or substitute for monitoring activities implemented by scientific or technical staff.

Regional cooperation

The MedPAN North project provided the Mediterranean network of MPAs with a harmonised methodology for MPA managers to assess the effectiveness of their management and created a group of specialists for evaluating the effectiveness of MPA management. This pooling of information can greatly enhance management and therefore reduce efforts and subsequent costs in developing specific methodologies for monitoring. This network also provides feedback on how to improve MPA management effectiveness.
The shortage of funding for MPAs often leads managers to search for new revenue sources beyond conventional sources. But a strategy focusing only on new revenue generation is likely to fail (MPA News, 2003). Before looking around for new financial opportunities, managers first need to examine the already existing opportunities that could, perhaps, be optimised or developed.

A recent study based on a sample of MPAs in the Mediterranean reveals governmental budgets (local, regional and national sources) are generally the main sources of funding for MPAs. Self-generated revenues are the second biggest source of funding for long-established MPAs surveyed: site-based revenues represent 10% of the total funds in the sample. They correspond to revenues from commercial activities and services. International cooperation (ODA, GEF, EU Life projects) represents less than 1% depending on the location of MPAs. Remaining available financial resources in the region originate from a variety of sources (including unspent revenues from the previous year) (Binet et al., 2015). For “younger” MPAs, the lower diversity of funding resources in comparison with other MPAs reveals their low financial autonomy (Binet et al., 2015).

Figure 4: Financing sources distribution for long-established MPAs in the Mediterranean
(Source: Binet et al., 2015)

2.1 FUNDING FROM GOVERNMENT

To increase revenues from government, justification and advocacy for the needs of the MPA are required. The financial strategy and associated business plan is particularly helpful with this: to convince governments to increase MPA subsidies, a long-term financial strategy coupled with specific environmental objectives (as well as demonstrated benefits from past activities) can be powerful advocacy tools.

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5 Based on sample of 15 MPAs
2.2 FUNDING FROM EUROPEAN PROJECTS

Several EU funding opportunities are available to support marine Natura 2000 sites under the existing EU funding framework (2014-2020). The most common for nature conservation is the EU LIFE program (Council Regulation (EU) no. 1293/2013 of 11 December 2013 on the establishment of a program for the Environment and Climate Action (LIFE)). This creates opportunities for starting up management activities but is quite limited to financing long-term management operations. Under the EU LIFE in the Mediterranean, 18 LIFE projects have been identified for supporting and reinforcing the marine Natura 2000 sites (Binet et al., 2015).

European funding implies that the structure should get engaged with a project approach. It requires cash flow planning and rigorous reporting to avoid weakening the structure.

Élodie Durand, Project Manager - Project and Financial Partnerships
(Parc national de Port-Cros)

The second potential financial instrument is the European Maritime and Fisheries Fund (EMFF). This fund could be used to finance measures aimed at protection of marine ecosystems and the services they provide. It can also be used for networking by local users on a local level (through what used to be known as Axis 4, and is now called a “community-led local development” opportunity).

European funding is adapted to MPAs with sufficient cash pooling to cover payment delays.

These opportunities operate under a programming cycle (2014-2020) and require the production of Prioritized Action Plans (PAFs). The PAF is a planning tool for the assessment of Natura 2000 priorities and managing measures. It is a pre-condition for applications for EU funding opportunities.

2.3 FUNDING FROM DONORS AND IGOS/NGOS

Donors and NGOs usually allocate funds for specific projects in MPAs, which leads to varying revenues. Most internationally-funded or NGO-funded projects do not have a follow-up when they are finished. They can be extended for one or two years, if the finance awarded has not been spent. But it is very unlikely that an additional project will be accepted and the same budget made available for the same activities.
2.4 FUNDING FROM THE PRIVATE SECTOR

To develop existing funds from the private sector, it is always important to adopt a “win-win” approach, by identifying the benefits for private donors. The structure of the funding could also be adjusted: would it be more appropriate for private donors to work within a bilateral agreement? These questions must be answered through dialogue and active participation from the private sector.

2.5 SELF-GENERATED REVENUES

Self-generated revenues are the income streams which can be most easily reviewed. When doing so, it is important to assess the effect of the mechanism on payers, their willingness to pay more and the alternative options they have to stop contributing to this stream. It can also help to know if the payment has been modified in the past and what the effects of this change have been on payers.

We are trying to attract visitors outside the seasonal period in order to improve the spread of tourism revenues.

Andrej Sovinc, Head Šečovlje Salina Nature Park (Slovenia)

A business approach should be used to review self-generated revenues:
• Consider the development of revenue-generating activities as well as the associated increase of operational costs; assess the marginal profit associated with this increase of activities; very often, if increase of revenues implies an increase of resources needed and potential new investments; these costs should be carefully assessed to see if an increase of revenues would be profitable;
• An increase of revenues and operational costs leads to a rise in working capital requirements that can threaten MPA cash flows;
• A rise in unit price does not create additional costs in the same way that developing an activity does; however, a price rise should also be carefully assessed so as not to discourage potential customers, and may be supplemented by a communication strategy to make this rise in price acceptable to customers. Significantly, studies have shown that price is not the first criteria of purchase in most cases: only 15 to 35% consider the price when buying in most sectors. As a result, a price rise should not be a great obstacle, provided that the rise is justified and that there are strong reasons for it.

In order to increase self-generated revenues, it is important to look first at increasing price levels, rather than volume of activities, in order to maximise margins. When the price is at the maximum acceptable level, then activity volumes can be considered.
3. Develop new financing mechanisms

Once the cost has been reduced to maximum efficiency and current revenues optimised, it may be necessary, to seek new financing sources. This can be helpful not only to reduce the financing gap, but also to diversify the revenue portfolio, an essential element in MPA financial sustainability, and thus limit the impact of fluctuating funding sources (e.g. domestic budget cuts, changes in interest rates for funds from international donors, drop in tourism rates).

In order to choose the right financing mechanism, it is necessary to define what “products” (goods and services) are provided by the MPA and who the “customers” (beneficiaries) are.

3.1 IDENTIFY THE “PRODUCTS”:
VALUATION OF ECOSYSTEM SERVICES AND ITS USE TO FINANCIAL PLANNING

Viewed from the perspective of a financial planner, a protected area can be seen as a business operation. An MPA provides its “customers” with a number of goods and services. These may include goods such as fish, salt or genetic material. But it also includes free services such as biodiversity conservation, water purification and recreational opportunities. All of them create specific opportunities for private sector market-based instruments.

With direct and indirect values and option value) and ‘non-use’ (comprising bequest and existence).

Figure 5: Categories of benefits provided by MPAs
Direct use values of MPA derive from the actual use of the MPA for such activities as recreation, tourism, the harvesting of various natural or cultural resources, fishing, and educational services. Conversely, indirect use values derive from the goods and services not directly provided by visits to the MPA. In particular, these include ecological functions such as watershed protection, the provision of breeding or feeding habitat, climate stabilisation and nutrient cycling. Such indirect use values are often widespread and significant, but have been under-valued, if not totally ignored by past economic assessments. Indeed, most of the studies that have attempted to value these indirect goods and services have found that they have far greater value than direct values which are easier to measure.

Option value refers to the potential for individuals or society to use the MPA in the future. For example, many people value a particular protected area even though they have never visited the park, but feel that at some future date they might like to do so.

Bequest value relates to the benefit of knowing that others (e.g. children or grandchildren) benefit or will benefit from the goods and services provided by the MPA.

Finally, existence value derives from the benefit of knowing that the MPA exists and provides valuable goods and services. Even if they do not plan on ever visiting a particular MPA, many people attach value to the mere existence of such sites (e.g. for the indirect benefits they provide or as sources of local or national pride). Applied to marine ecosystems, the main ecosystem services provided are tourism landscapes, fish biomass, shoreline protection and bequest value.

Many studies and projects have demonstrated the importance of taking account of these values in improving the financial sustainability of the MPA. For instance the UNDP-GEF-Government of Montenegro project “Catalysing financial sustainability of protected areas in Montenegro”, aiming at securing new revenue streams, devoted one of its project’s outputs to the economic value of the national Montenegrin Protected Area System (UNDP, 2011). More recently, scientists have discussed a system approach to explore sources of sustainable financing using “The Economics of Ecosystems and Biodiversity” (TEEB) framework (Millennium Ecosystem Assessment, 2005) (box 11).

6 http://conservationfinance.org/news.php?id=299
Using the Millennium Ecosystem Assessment framework, potential financing mechanisms for an MPA can be identified and assessed following 10 steps. This approach is based on the premise that a successful sustainable financing strategy needs to identify context-specific obstacles for financing instruments and generate solutions on that basis.

1. Identify MPA ecosystems and threats affecting the health of the terrestrial and marine ecosystems
2. Assess Ecosystem Services
3. Identify beneficiaries of these services
4. Make an inventory of all current and potential mechanisms through which financial flows can be transferred from the beneficiary to the management of the MPA
4b. Select a number of beneficiaries and finance streams identified on the basis of different criteria (e.g., likelihood of implementation, time required, level of complexity)
4c. Quantify finance streams to determine their economic importance
5. Research influential people/decision makers that ultimately decide on the funding of nature management in relation to the MPA
6. Identify the schemes of MPA management to determine the viability of potential financial mechanisms
7. Determine the flow of financial resources from the beneficiaries to the MPA managers (finance streams identified in step 4 and current funds)
8. Identify obstacles (gaps, problems, challenges, etc.) and bottlenecks in the system that prevent financial flows being achieved or channelled to the appropriate level of MPA management
9. Select a number of possible solutions to obstacles
10. Undertake certain actions that would help better identify the issues at stake, as well as provide direction or insight on how to achieve the desired measure to address the obstacles (e.g., collection of additional information from stakeholders, ‘Willingness to Pay studies’, dialogue with the decision-makers, introduction of financial expertise to the MPA management structure, etc.)

To help ecosystem values and valuations carry more weight in management and investment decisions, the World Resources Institute (WRI) has developed a guidebook titled “Coastal Capital: Ecosystem Valuation for Decision Making in the Caribbean” and calculation tools for coastal ecosystem valuation. Similar tools could be developed to assess the various benefits provided by your MPA. This assessment has two main advantages:

- It reveals the invisible values and beneficiaries of specific services provided by MPA ecosystems, helping identify potential markets for beneficiaries that enjoy the good water quality, spillover effect for fisheries, beautiful scenery preserved by the MPA, etc.
- It assesses the magnitude of benefits provided by the MPA, helping evaluate the markets to be developed and pick the best option to maximize revenues

Such valuation exercises can also lead to the development of innovative tools such as payment for ecosystem services. An example for a blue carbon project is presented below.

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7 Documents associated with the WRI’s Valuation Tool and the Excel-based tools are available at: http://www.wri.org/our-work/project/coastal-capital-economic-valuation-coastal-ecosystems-caribbean/coastal-capital#project-tabs
THE ABU DHABI BLUE CARBON DEMONSTRATION PROJECT (United Arab Emirates)

To preserve its coastal environment and heritage from the Emirate’s rapid development, Abu Dhabi Blue Carbon Demonstration Project has developed a toolkit assessing the impact of development on coastal marine ecosystems and the associated blue carbon stock (Figure below). By giving a vision of all Abu Dhabi Blue Carbon ecosystems and associated carbon outputs, this toolkit should provide information relating to the future development of Abu Dhabi and guide decisions. Once Blue carbon ecosystems are identified (mangroves, seagrass meadows, saltmarshes, intertidal cyanobacterial algal mats), the project is putting forward ideas such as the development of ‘Payment for Ecosystem Services’ schemes like carbon offsets to support the preservation of these ecosystems.

Source: http://bluecarbon.unep-wcmc.org

BECONOMIC BENEFITS OF SUSTAINABLE DEVELOPMENT AND POTENTIAL BLUE CARBON VALUE OF THE FUTURE KATIC MPA MONTENEGRO

As part of MedPAN Small Projects Initiative, Katic MPA has investigated the potential for blue carbon project development with regards to seagrass protection. In particular, it aimed to develop a specific monitoring protocol for Posidonia meadows and define the basis for carbon credit sale for the protection of seagrass in the MPA.
3.2 IDENTIFY THE “CUSTOMERS”: BENEFICIARIES AND PAYERS

Each of the benefits noted above can be associated with a beneficiary group. Different types of protected areas may supply different sets of beneficiaries, locally, nationally or globally, depending on the types of goods and services provided (Figure 6). The array of benefits flowing from a protected area, or protected areas network, will be largely determined by the nature of their ecological situation or landscape. However, their accessibility to stakeholders, as well as the institutional structure and policy environment of the protected area, will also help determine which benefits are present.

When identifying beneficiaries, it is important to think broader and also consider beneficiaries outside of the borders of the protected area.

![Figure 6: Scale of MPA services and goods beneficiaries](source: from UNDP, 2011)

For instance, an MPA in the vicinity of a cruise ship route will be more likely to provide direct recreational use benefits than an isolated MPA. It is the task of the manager to identify the relevant beneficiaries and find a way to “capture” this value via a financing mechanism (in a way that is compatible with conservation objectives) (box 14).
From research into visitor environmental perception and willingness to pay (WtP) for marine conservation of the Cres-Losinj Marine Protected Area for bottlenose dolphins, scientists demonstrated that over 80% of interviewees were willing to pay more for their holidays in support of marine conservation. The average WtP was 6-10% higher than the average daily expenditure per person. This resulted in a potential ecological tax of approximately 1 euro per visitor per day, and an overall estimated increase of seasonal income of between 2.4 million euros and 9.9 million euros.

To use dolphins as a flagship species, managers should seek to raise public awareness, which could then lead to greater support for the MPA.

This study on the viability of the MPA showed the possibility of self-financing through visitor fees, and the potential additional income of dedicated ‘dolphin watching’ trips.

When assessing compatibility with conservation objectives, it is useful to refer to the IUCN six management categories for protected areas, which are based on nine main objectives for protected area management, ranging from scientific research to maintaining cultural attributes (Table 4). Each of the six categories of protected areas can, broadly speaking, be associated with primary, secondary and potential management objectives.

| CATEGORY I | PA managed mainly for science or wilderness protection (Strict Nature Reserves and Wilderness Areas). |
| CATEGORY II | PA managed mainly for ecosystem protection and recreation (National Park). |
| CATEGORY III | PA managed mainly for conservation of specific natural features (Natural Monument). |
| CATEGORY IV | PA managed mainly for conservation through management intervention. |
| CATEGORY V | PA managed mainly for landscape/seascape conservation and recreation (Protected Landscape/ Seascape). |
| CATEGORY VI | PA managed mainly for the sustainable use of natural ecosystems (Managed Resource Protected Area). |

Table 4: IUCN Protected Area Categories

The objectives of each category relate to a number of uses and corresponding benefits. For instance, scientific research is a direct use of protected area resources; the corresponding beneficiary group could include academics and private sector research teams. So the categories provide some indication as to whether a particular use is appropriate or not.

Marine Protected Areas from each category will produce some level of benefit for everyone, but the relative level will tend to be different for each category. In general, however, direct local benefits will increase proportionate to other benefits as the category number rises. However, the customer base for each area is greatly influenced by the context of the protected area.
Compatibility among and between the beneficiaries and users of a protected area is also important for the success of a financial plan and effective management of the area. The existence of incompatible user groups can cause conflict and loss of investment.

In such cases, a protected area manager must choose between customer groups or identify management strategies such as separating conflicting users through zoning, so as to ensure that the groups do not adversely affect the quality of each others’ recreation/tourism experiences.

The uses and benefits of a protected area may be considered as ‘public goods’, ‘private goods’ or a combination of the two in the form of ‘toll goods’ or ‘common property goods’:

- A public good is any good or service whose provision is ‘non-excludable’ and ‘non-divisible’, meaning that once it is provided it is available to everyone. Examples of public goods generated by protected areas are watershed protection, carbon sequestration and critical habitat protection.
- Private goods are both excludable and divisible: i.e. once they have been provided to someone, they are only available to that individual. Examples include regulated hunting, fishing, and non-timber forest products; for example, once an animal is hunted, a fish is caught or a non-timber forest product is harvested by an individual, no one else can use them (i.e. they are not divisible).
- Toll goods (e.g. controlled entry to protected areas) may be excludable but not divisible; these are similar to roads with tolls.
- Common property goods are divisible but not excludable, meaning access to them is open to anyone but that once they are used, no one else can use them. For example, harvesting medicinal plants for personal use in a protected area may be open to all, but once they are harvested, no one else can use them.

Understanding the nature of goods and services provided by protected areas is critical for identifying potential sources of finance. The purely public goods provided by protected areas require public funding, whether from traditional government allocation, overseas development assistance or foundation grants. The private good aspects of protected areas, on the other hand, can be commercialised and therefore funded by private sources of financing, such as tourism investments, fishing fees and licensing arrangements. Toll goods are also accessible to private financing through mechanisms such as gate fees, but combined public and private financing may be needed for common pool goods. Protected areas provide all types of goods and services, and protected area managers, faced with insufficient public funding, will therefore need to consider funding from both public and private sources.

Finally, the financial plan for the MPA should, of course, relate well to its context. The following factors have a significant effect on the financial options available to the manager:

- The size and category of the MPA;
- Zoning regulations within the MPA;
- Management responsibility, including legal mandates;
- Ownership of land and associated resources and features;
- Regional variations (e.g. size and socio-economic characteristics of surrounding population or prevailing political climate);
- External zoning regulations, including buffer zones; and
- International designations (e.g. World Heritage, Ramsar or Biosphere Reserve status).

These factors influence how the MPA should be managed, the uses and customers which could provide revenue to the protected area, and the opportunities for channelling finances back into the MPA. For example, an MPA which has a dense population living in its vicinity may be able to capture more financial resources from
the local community than one situated in a remote unpopulated area; sites with multiple international designations may be more able to attract international funding agencies; and an unstable political climate may impede attempts to increase funding levels.

3.3 REVIEW THE POTENTIAL FINANCING MECHANISMS FOR YOUR MPA

Many innovative financing mechanisms are already used around the world to finance protected areas. A review of these mechanisms is provided below with examples\(^8\). These examples should be explored for specific aspects in order to provide substantial revenues. The presentation of these mechanisms has been deliberately kept short, since extensive literature on these mechanisms is available. We focus here on the main mechanisms that can be applied in Mediterranean MPAs.

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8 These are based on the report on economic instruments for MPA management prepared as part of the CoCoNet project: Report on a Marine Economic Instrument Index for the Mediterranean and Black Seas Deliverable D6.4
Public and Private Financing for Biodiversity

Environmental funds are instruments that facilitate, through financial support and/or technical support, investments in projects or development of environmental policies with a long-term vision. Funds are generally dedicated to one specific issue such as climate change, biodiversity preservation, emblematic species that are likely to concern MPAs. There are a wide variety of environmental funds - some have emerged from international conventions, others are national or initiated by NGOs and legally independent. This diversity affects their implementation.

Funds can be combined with other tools. The power of the funds can be ensured by a system of taxes, royalties, payments from environmental services, etc. Downstream, the funds can support payment for ecosystem services programs such as trust funds for the environment that often manage local projects, protected areas, etc.

LIFE+ is an EU programme that finances projects contributing to the development, implementation and updating of environmental policies and legislation. It also seeks to facilitate the integration of the environment into other policies. For the period 20014-2020, the LIFE+ budget was set at 2.1 billion euros. Each year, the European Commission calls for applications that take into account its strategic plan and national priorities. For habitat protection projects, LIFE+ may co-finance up to 75% of a project.

Horizon 2020 is an EU research-focused fund that supports large-scale transnational projects; it can be mobilised for research activities in MPAs.

EU sectoral funds such as EMFF for fisheries provide interesting opportunities for MPA financing in EU countries. Its local development tool also provides opportunities for local development on the coast.

The Biodiversity Finance (BIOFIN) Workbook provides guidance for countries on how to assess financial needs and mobilize the financial resources required to fully implement their revised National Biodiversity Strategies and Action Plans (NBSAPs), and thereby achieve the Aichi Targets at a national level. It provides actors with an analysis of the potential finance mechanisms that may unlock new sources of funding and revenue.

Conditions for success:
- Develop strategic and financial planning
- Diversity financing systems
- Encourage independent and participatory governance
- Promote strategic partnerships
- Ask for political support
- Request financial expertise
- Report, monitor and evaluate results
<table>
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<tr>
<th>National funds</th>
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<td>In addition to its contribution to the Global Environment Facility (€164 million for 4 years), France has established a national fund - the French Global Environment Facility (GEF) - financing environmental projects particularly in Africa (especially sub-Saharan Africa) and the Mediterranean. From its inception in 1994 to its end in 2009, the French GEF agreed to co-finance 204 projects for a total amount of 226 million euros, including 112 million euros for biodiversity.</td>
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<td>In Egypt, Act 4 of 1994, created the Environmental Protection Fund (EPF) that receives all revenues generated by protected areas (e.g. entrance fees, concession income, penalties and others, such as permits to film inside parks, etc.) Total annual revenues are around $US10 to 14 million from fines and compensation for environmental damage (50-80%), donations, protected area fees (17-40%), hunting fees and others (wastewater treatment stations, selling of organic fertilizers, etc.). The EPF provides financial support to the Egyptian Environmental Affairs Agency (25% of the EPF budget) but also, via grants or soft loans, projects for organizations that apply to the EPF for funding. Every year the EPF issues a plan detailing the financial support programs offered for that year. The plan specifies focus areas based on environmental priorities (air and water quality, waste management, etc.). A key problem was that the majority of project applications (90%) could not be accepted due to their low quality and poor drafting. This situation seems to have been improving over recent years.</td>
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### Private funding

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<th>Private funding can come from:</th>
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<tr>
<td>Philanthropic foundations (NGOs) usually with endowment funds established by wealthy individuals or companies;</td>
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<tr>
<td>Corporate funding: companies that set up special funds or programmes for biodiversity conservation;</td>
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<tr>
<td>Personal donations originating from a range of sources, including individuals, informal groups and organisations and with a focus on telecommunication channels like crowdfunding platforms.</td>
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### Condition for success:

- Long-term management commitment and the development of monitoring and evaluation systems to determine the effectiveness of conservation actions.
- Strong community engagement & support: investments of time and effort to identify, persuade and satisfy donors with regard to amounts raised.
- For crowdfunding, clearly identify actions to be financed by funds collected.

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The Indiegogo “Stand with Palau” project was launched in July 2014 to fund Palau marine reserves. In three months it exceeded its goal of $100,000 with some 583 total donors pitching in. The money was spent on boats, monitoring drones and buoys, and staff to run them. It was the first time a nation-state had started a marine conservation crowdfunding campaign.

To finance its 2014 programme for observation and study on the Mediterranean great white shark, Longitude 181 Nature called for private funds through the crowdfunding platform KissKissBankBank. In 70 days, €42,340 was collected representing 247 donors and covering 106% of the project's estimated budget.

9 [http://www.kisskissbankbank.com/grand-requin-blanc-de-mediterranee](http://www.kisskissbankbank.com/grand-requin-blanc-de-mediterranee)
## Entrance fees and taxes

Fees can be voluntary (such as a hotel or tourism fee) and allow individuals to contribute to sustainable management, or mandatory (such as airport departure fees) that can be directed toward sustainable management. Some MPAs charge entrance fees, while others only charge for services they offer (such as guided tours, etc.).

**Brijuni National Park** (Croatia) offers complete facilities and activities for visitors and collects a visitor fee of €27, which includes a ferry ride, a guide for four hours, a tourist train ride, and entrance to museums on the main island. The park manages three hotels and three guest villas on site, with villa rentals ranging up to €1800 per night (US$2500). It also hosts and caters several weddings per year, generating additional revenue. In addition, there is a golf course and a safari park. Self-generated revenues amounting around €7.91 million in 2009 allowed the park to be self-sufficient.

### In 2000, the Balearic regional Government of Socialists, Greens and Nationalists introduced an Ecotax of €0.5-2 for every night stayed in hotels and apartments by the 11 million tourists that come to the Islands every year. The ‘green’ Government estimated that this would raise €72 million a year and finance the improvement of the intensive tourism spots and the conservation of rural and natural areas. The right-wing party and leading entrepreneurs and tour operators opposed this initiative and, four years later, when they took back the Government, the Ecotax was abolished. Despite this, the tax operated for 2.5 years (May 2001 to November 2003) and collected a total of €60 million, which was partially invested in greening tourist areas and nature conservation through a Foundation which ended up being managed by the right-wing party and later on dissolved. This was a missed opportunity, but the experience may be useful for other areas.

### Condition for success:
- Ensure transparency in the use of the funds (public access)
- There needs to be clear private sector buy-in of conservation efforts
- Communication of results to all stakeholders is essential
- Regularly review pricing policies to analyse the overall effectiveness in terms of price differentiation strategies to optimize revenues
- Invest to develop tourism facilities.

## Fines and penalties

Punitive fees and fines aim to discourage environmentally harmful behaviour, such as bottom trawling practices.
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<th>MECHANISMS BASED ON BIODIVERSITY ASSETS</th>
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### Payments for ecosystem services and conservation agreements

**Payments for ecosystem services** consist of schemes that allow a group of beneficiaries to pay for the costs of maintaining ecosystem services.

**Blue carbon** represents an interesting opportunity for payment for ecosystem services in the Mediterranean Sea, with respect to seagrass protection. Katic MPA in Montenegro has investigated this opportunity as part of a small project that has yet to be implemented.

### Conditions for success:

- The presence of a trusted mediator to establish the scheme is essential.
- There needs to be an imminent threat or loss of the service needs to be seen to be already underway.
- The current capacity to manage for sustainable use in many regions is inadequate, and a niche is available for greater capacity to be engaged.
- It is important to demonstrate hard facts and well developed projections to convince private sector parties that Investment in Natural Capital (INC) makes business sense.
- The price for safeguarding valuable ecosystem services needs to be negotiable and consider wide-ranging factors.
| **Ecolabelling and Conservation Marketing** | With the **SEA-MED project**, WWF is working with governments and authorities in 7 MPAs to move them towards a state of financial and operational self-sufficiency. It addresses fishery and tourism management through a stakeholder participatory approach, to demonstrate the value of MPAs for marine resources management and livelihood generation and contribute to the creation of exemplary models of Integrated Coastal Management Zones. In particular, this project promotes the business-to-business exchanges to encourage the adoption of nature-based tourism initiatives.  

**The Marine Aquarium Council (MAC)** is committed to the creation and promotion of a set of standards and certification for all those engaged in the collection and care of ornamental marine life. These standards can provide economic incentive to local communities to protect local resources (e.g. reefs) as a principal source of their wealth.  

**Les Calanques national park – France** is considering developing « esprit parc national » a trademark that will be assigned to operators whose services (transport by sea, food services, etc.) comply with the requirements of the park. |
| **Green Lottery** | **Lotteries** are administered at the national or state level by government agencies or by private operators licensed by governments. In contrast to previous conservation finance mechanisms, there is no direct or indirect connection between the source of the revenue and the conservation purposes for which the revenue may be spent.  

**The U.K. National Lottery** provides funding for conservation organizations such as Birdlife International, the Royal Society for the Protection of Nature, and WWF but also for land acquisition, natural resources management, and environmental education.  

**Conditions for success:**  
• Ensure the existence of a compatible legal framework |
3.4 CHOOSE APPROPRIATE NEW FINANCING MECHANISMS

New financing mechanisms must be selected according both to the services and beneficiaries identified as part of the MPA assessment. Particular attention must be paid to beneficiaries: who is currently paying for what services, and who is not. Advantages and disadvantages of each mechanism also have to be reviewed in light of the MPA’s management schemes, its objectives and obstacles. For instance, the Conservation Finance Alliance proposed a comparative review of Conservation Trust Funds and Projects finance approaches and concluded that there was no inherent contradiction between these two sources of funding. These two mechanisms can strategically complement each other combining short-term investments with a long-term financing (CFA, 2014).

MPA funding must take into account the legal framework in which MPAs operate. For example, some sources of income are excluded de facto (e.g. income from the sale of objects) if the legal framework of the MPA does not allow it or does not plan to develop certain activities (e.g. commercial activities).

Laurent Sourbès, Director of the National Marine Park of Zakynthos (Greece)

It is important that the development of new mechanisms complies with and, as much as possible, complements management objectives. For the management of resources exploitation, economic instruments are a powerful tool, as well as a good source of financing on a local level. The CoCoNet project has produced a report on the sort of economic instruments that can deliver good financing mechanisms. The instruments are detailed in the report and their feasibility for the Mediterranean context presented.

| Property rights | Ownership titles - Use rights (licensing) - Buyouts |
| Market creation | Tradeable permits - Tradeable shares |
| Fiscal instruments | Products taxes - Input taxes - Subsidies |
| Charge systems | Entrance fees - User charges - Access fees |
| Financial instruments | Soft loans - Grants - Public-private partnerships - Biodiversity Offsets |
| Bonds and deposit refund systems | Environmental performance bonds - Environmental accidental bonds - Deposit refund systems |
| Liability systems | Legal liability - Non-compliance charges - Liability insurance - Enforcement incentives |

When a mechanism seems to be appropriate, its feasibility needs to be evaluated in line with a number of different factors, as shown in the text below adapted from WCPA/IUCN (2001).
Internal factors:

• **Human capital**: the strength of the human resources of the organisation is key to financing mechanism development. A mechanism which relies on capturing revenues from direct customers such as fishermen or tourists will require appropriate capacities for conducting tours or enforcing regulations. A mechanism which focuses more on securing grants from national or international donors will need different skills, such as writing (sometimes in a foreign language), developing proposals and communicating innovative ideas.

• **Finances**: some strategies require significant short-term investment in infrastructure, human resources or time, all of which may need to be financed. It may be possible to implement other strategies without significant investment. The available funds for implementing new mechanisms are an essential factor to consider in successfully developing the new mechanism.

• **Infrastructure and natural assets**: access from major cities or transportation hubs may determine if the protected area can tap into urban or international tourism markets. Proximity to other tourist attractions may also be a factor. The availability and quality of on-site infrastructure – accommodation, dining facilities, research facilities, footpaths etc. – is also important. So too are the attractions offered by natural and cultural features in the MPA.

External factors:

• **Legal frameworks**: land tenure and zoning regulations at sea may affect the MPA manager’s ability to pursue financial objectives. The ownership structure of the area determines who the stakeholders of the MPA are, who receives the benefits and costs of certain activities, and who holds the rights and responsibilities for activities conducted within the protected area or its buffer zone. Clearly, these are all factors that determine which fundraising options are available. Zoning regulations can have a direct impact on the types of uses that are, and are not, allowed within and adjacent to the MPA. The overall governance structure for the protected area is very relevant to the shape of its financial strategy. A nationally-owned protected area, which is managed by a central government agency, will have very different obligations, criteria and expectations for its financial plan than a protected area owned and managed by a local community-based organisation, an NGO or a private individual or company.

• **Fiscal frameworks**: it is necessary to explore the fiscal framework prior to development of any new financing mechanism; the framework may allow for taxes on environmental uses, or not. For instance, the fiscal framework for mooring fees in French MPAs has been greatly discussed in the national assembly and opposing deputies claimed that it would put excessive pressure on leisure boats; it is therefore very unlikely that comparable mechanisms developed in French MPAs could be implemented.

• **Political and sociocultural context**: every MPA’s financial plan must be developed within the political and sociocultural context of the particular country and region where it sits. A country’s political situation will have a considerable impact on a financial strategy. Political stability is linked to economic stability, an important factor for financial prospects. For instance, a country which is war-torn or prone to terrorist attacks is unlikely to be suited to tourism-based financing strategies for their protected areas. This is an especially important consideration when attempting to capture a piece of the international tourism market. In such a market, each protected area is in direct competition not only with other protected areas in the same country but also with protected areas world-wide.
The Fishing Reserve of Cap Roux was created more than 10 years ago and is located in the heart of the marine extension of the Natura 2000 Esterel area. It does not have the necessary means for conducting sufficient surveillance, scientific monitoring and information or awareness activities. However, local players, first and foremost the fishermen of the fishing organisation ("prud'homie") of Saint Raphael, but also the diving clubs, feel that the maintenance, proper management and protection of their fishing reserve is very important. A project submitted in the framework of MedPAN Call for Small Projects 2014 aimed at establishing funding actions through a "bouquet" of pilot initiatives involving local players in particular. This project is an extension of two years of existing work with the fishing organisation of Saint Raphael, meetings with local players, communities and government departments as part of a project funded by the European Fishing Fund, the French state, the Provence-Alpes-Côte d’Azur region and the Var Département Council.

In practice, in order to choose the relevant mechanisms, the questions in the following box must be answered.

1. **What are the current sources of funding? Can these be relied on indefinitely?**
2. **What can be done to increase, extend, or strengthen each one of them?**
3. **Who are the MPA’s constituents? Sightseers? Hikers? Campers? Boaters? Fishermen? Tourism service operators (e.g. shops, hotels, restaurants and guides) in the area? What do they currently contribute to the costs of managing the area? Could they do more?**
4. **What services are currently provided? Parking? Trails? Campsites? Picnic areas? Boat launching, anchorage, or mooring? Do the users pay for these services? Are the fees appropriate and fair? Would the users pay more?**
5. **What new services might be provided? What is the likelihood of their profitability?**
6. **What organisations are interested in the conservation of this area? Can a partnership be formed to launch and share the costs of a fundraising campaign? Can campaign services be secured pro bono from local companies (radio/TV, newspaper, advertising agency, celebrity appearances, site/food/music for a special event, etc.)?**
7. **What donors, on a global or regional scale, have supported activities similar to those included in the conservation plan here? Are they aware of the area? What are the plans to gauge their interest?**
8. **Has the Government considered special taxes or levies? What are the pros and cons of such programmes in the area/country? Can a case be made for establishing such a programme, and the necessary coalition to support it be built? Are there one or two key leaders who might be instrumental in establishing a "conservation sales tax" or some other type of surcharge or levy? Who could enlist them in the campaign?**
3.5 ESTIMATE EXPECTED REVENUES

Once the most acceptable and feasible mechanisms are defined, their expected revenues are evaluated. This involves identifying potential beneficiaries and the extent to which they will contribute: tourists, locals, divers, fishermen, firms, state, donors, etc. are some key stakeholders that may be willing to contribute to the preservation of key coastal and marine ecosystems. The previous step concerning customers and services should help in the process.

Once the best new mechanisms are identified and revenues are estimated according to the MPA specificity they must be integrated into the business plan as a new source of revenue for bridging the financial gap.

New sources of revenues can be added in the Excel file, under the “Costs and revenues Summary” sheet:

There are no automatic cells in this new financial means section. Complete each year with the annual revenues you are expecting. Write the type of new source of revenue in the empty column on the left.

To achieve a “zero gap”, costs can also be modified. In this case, modify the “recurrent costs data” sheet and the “investment costs” sheet. Do not forget to press “Enter” every time you modify a data sheet so that the charts are modified. Keep going until the overall gap is zero (or very nearly zero); this case, modify the “recurrent costs data” sheet and the “investment costs” sheet. Do not forget to press “Enter” every time you modify a data sheet so that the charts are modified. Keep going until the overall gap is zero (or very nearly zero):
Several strategies should be tested to find the best way to reduce the financing gap.

4. Advocate for your financial strategy

Once the MPA has a business plan and opportunities to bridge the financial gap have been defined, the financial strategy should serve as a marketing and communication tool.

The business plan aims first to establish the best financial strategy, but also to convince local communities, firms or donors to contribute to financing new projects. The first stage of the business plan involves filling in tables, but a second step is explaining and justifying these tables and the strategy.

The analysis could have the following structure:

1. Explanation of methodology and length (5 years, 10 years, 15 years etc.): provide details about the strategy pursued, the objectives, the current MPA’s strengths and weaknesses.

2. Analysis of the costs (amounts and structure): what is the current allocation of expenses? What is the proportion of salaries? How has it been reduced to optimise efficiency?

3. Analysis of the revenues (amounts and structure): what is the breakdown of revenues for the MPA today? What is the targeted breakdown over 5 years, 10 years? Demonstrate the diversity of the portfolio.

4. Analysis of the financial gap: detail of the needs for efficient management: what are the priority actions, how much will the actions cost?

5. Proposal for achievement of zero financing gap: explanation of the new mechanism considered: why is it relevant in the specific MPA context? How will the use of funds be optimised?
Demonstrating the substantial contribution that MPA goods and services make through economic valuation should help managers identify beneficiary groups/sectors of its services and goods. An important question then arises: if the MPA is so valuable to the economy, and to so many groups, then how could the financing gap actually be filled in order to maintain this important asset, and by whom?

Arguments for encouraging donors to contribute to financing the MPA should be adapted to the donor targeted. Examples of arguments for potential financers are provided below. This is based on the executive summary of a UNDP project on protected areas in Montenegro. These arguments present some data that can be evaluated with the help of economists, or adapted based on available macroeconomic indicators for the region or country (GDP, income per capita, etc.)

**ADVOCATE FOR YOUR MPA AT A NATIONAL AND REGIONAL LEVEL – 10 KEY ARGUMENTS**
(adapted from UNDP, 2011)

### The MPA generates considerable values

The value of tourism and recreational activities, other uses of our MPA lands and resources, water supply services and watershed/flood protection services is estimated at just under XX million euros in 20XX.

### The MPA plays an appreciable role in the national economy and development

In 20XX, the quantified value of our MPA equated to some XX% of GDP of the region, or economic benefits of XX euros generated per capita of [country’s name] population.

### MPA values accrue to multiple sectors, at many different levels of scale

In 20XX, just under XX% of our MPA values accrued to the general public, more than XX% generated earnings and cost savings to businesses and industries (XX million euros), and around XX% earned revenues for the Government (XX million euros). The MPA goods and services supported the output of many different sectors of the economy, including tourism, energy, water, agriculture, infrastructure, disaster risk reduction, etc.

### The values generated by the MPA have a substantial multiplier effect across the economy

For example, our MPAs protect the source of existing and planned hydropower generation worth almost XX million euros a year in public revenues. The MPAs generate total income, investment and spending for the tourist sector of XX million euros (or XX% of GDP), including gross visitor spending of more than XX million euros and capital investment in excess of XX million euros, as well as some XX full-time job equivalents.
There is significant public under-investment in the MPA

At XX million euros a year in total or XX euros/km², current funding to our MPA is insufficient to manage the MPA effectively. It is lower than in many other [countries or MPA], and less than XX% of the actual financing needs for an effective MPA management in the Mediterranean (see Binet et al., 2015).

Investing adequately in PAs will generate added value for the economy

Choosing to “invest in natural capital” may create steady and increasing added value to [country’s name]’s economy and population over continuing “business as usual”, generating incremental benefits worth more than XX billion euros over the next XX years.

There is a high economic return on public investment in the MPA

Although choosing to “invest in natural capital” implies a considerably higher level of public investment than continuing “business as usual”, this expenditure is far outweighed by the economic benefits generated. Net benefits will more than double over the next XX years, and our MPA will generate a total return of almost XX euros per XX euros of public funds invested.

Investing adequately in PAs will generate added value for the economy

Choosing to “invest in natural capital” may create steady and increasing added value to [country’s name]’s economy and population over continuing “business as usual”, generating incremental benefits worth more than XX billion euros over the next XX years.

The MPA is not being managed to its full economic potential

The public income earned from our MPA is currently less than XX million euros a year. There is low cost recovery – this equates to only around XX% of projected funding needs. In many cases there are unmet consumer demands for sustainable MPA products and services, and the bulk of MPA goods and services are being provided at a low or zero price to users. Increased public investment and policy actions can help to realise these economic opportunities.


Bovarnick, A. 2007. Financial Sustainability Scorecard for National System of Protected Areas. UNDP.


Lapeyre, R., Froger, G., Hrabanski, M. 2014. Biodiversity offsets as market-based instruments for ecosystem services? From discourses to practices. Ecosystem ser-
Sustainable financing of Marine Protected Areas in the Mediterranean


Ministero dell’Ambiente e della Tutela del Territorio e del Mare (MATTM) (2008). Valutazione dell’efficacia di gestione delle Aree Marine Protette Italiane: Isole Ciclopi, Pernisola del Sinis, Secche di Tor Paterno, Torre Guaceto. A cura di Federparchi e WWF Italia per il Ministero dell’Ambiente e della Tutela del Territorio e del Mare. Edizioni EUT, Trieste. 475 pages.


UICN-MACO - PRCM, RAMPAO, UICN, FIBA. 2012. Une boîte à outils pour appuyer les gestionnaires d’AMP du RAMPAO dans la mise en place de mécanismes de financement durables. 63 pages.


UNEP. 2014. Resource mobilization, Addendum, Financial reporting, Note by the Executive Secretary. Conference of the Parties to the Convention on Biological Diversity. Twelfth meeting

Pyeongchang, Republic of Korea, 6 - 17 October 2014. Item 18 of the provisional agenda. 20 pages.


WWF. 2003. Rapid Assessment and Prioritization of Protected Area Management (RAPPAM) Methodology. WWF, Gland, Switzerland. 52 pages.

The MedPAN collection

The MedPAN collection is a series of publications designed to provide Marine Protected Areas (MPA) managers and other stakeholders in the Mediterranean, guidance, practical and useful information, experience feedback or overviews on key MPA management issues.

The MedPAN collection is fully adapted to the Mediterranean context. It gathers publications developed by different key players in the Mediterranean MPA community under a unified look and feel.

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