

# Environmental Contracts in Marine Protected Areas

## Methodology and pilot cases from TUNE UP

edited by Anna Laura Palazzo, Serena Muccitelli, Romina D'Ascanio,  
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Interreg MED TUNE UP - Deliverable 4.2.1 Joint methodology for MPA Contracts implementation

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Promoting multilevel governance for tuning up biodiversity protection in marine areas  
TUNE UP

Priority Axis 3: Protection and promoting Mediterranean natural and cultural ecosystems  
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## Deliverable 4.2.1

### Joint methodology for MPA Contracts implementation

Lead Partner: Anatoliki

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Work Package 4 - Transferring

Activity 4.2 Transferring Territorial Contracts methodology

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This document is an intermediate output of the project Interreg MED TUNE UP - *Promoting multilevel governance for tuning up biodiversity protection in marine areas*, co-financed by the European Regional Development Fund via the Interreg Med Programme, and specifically 'Deliverable 4.2.1 - Transferring Territorial Contracts methodology'.

The project faces the need for a strategic and collaborative approach to Mediterranean Marine Protected Areas (MPAs) management and biodiversity protection. The core idea of the project is to exploit the feasibility and flexibility of the Environmental Contract methodology in Med MPAs. This methodology, aimed at transferring the Environmental Contracts beyond TUNE UP project partnership, has been developed in the framework of 'WP4 – Transferring' under the coordination of the Department of Architecture of Roma Tre University and with the contribution of all partners. This document resumes the main steps and phases faced by the TUNE UP partnership, coordinated by ANATOLIKI SA, in the implementation of 10 MPA Contracts in Mediterranean countries.

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# Environmental Contracts in Marine Protected Areas Methodology and pilot cases from TUNE UP

edited by

Anna Laura Palazzo, Serena Muccitelli, Romina D'Ascanio, Carolina Pozzi and Stefano Magaudda

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## Lead Partner Foreword

*Kostas Kostantinou*

The Mediterranean Sea is acknowledged as one of the priority eco-regions, that contains major biodiversity hotspots. In addition to its ecological value, the economic value of Mediterranean biodiversity and the services it provides have been recognized. A wide array of pressures (e.g. population growth, urbanization, tourism exploitation, overfishing, pollution, shipping traffic, non-native species) are causing loss and fragmentation of Med marine and coastal habitats. Although action to halt biodiversity loss entails costs, biodiversity loss itself is costly for society, so each year certain EU countries lose 3% of GDP due to the loss of marine biodiversity.

The TUNE UP project, co-financed by the European Regional Development Fund via the Interreg Med Programme aims at tackling the need for a strategic and collaborative approach for an effective management of the Mediterranean Marine Protected Areas (MPAs). The approach is based on the Environmental Contract experience, a multi-stakeholder/multi-level governance tool, addressing to both private and public bodies, that was previously tested in the framework of European Cooperation Programmes, by the Interreg Med project WETNET (2016-2019). The project builds on the results of WETNET project, taking advantage of the flexibility and feasibility of the Environmental Contract methodology, adapting it further to MPAs governance and evaluating its effectiveness through testing actions in 10 pilot MPAs by the project partners.

The results of this effort were evaluated and, with the contribution of all partners, led to the elaboration of this document proposing a methodology for the implementation of Environmental Contracts in MPAs having as main benefits, such as the mainstreaming of the Contract tool in the local/regional regulatory framework; the increase of scientific knowledge regarding marine and coastal ecosystems and awareness raising on MPAs value; the intensified collaboration between local organizations and stakeholders.

## Scientific Coordinator Foreword

*Anna Laura Palazzo*

During the last decades of the 20th century, under the umbrella reference of EU, relevant processes dealing with devolution and transfer of competences took place.

The principle of subsidiarity, formally enshrined by the Treaty on European Union (TEU)<sup>1</sup>, states that decisions are taken as closely as possible to the citizen and that constant checks are made to verify that action at EU level is justified considering the possibilities available at national, regional, or local level.

All countries following the so-called ‘civil law system’ taking its origins from Roman law (the Continental Europe as a whole), have been prompted to rethink their traditional authoritative frame of reference, embedding several contractual agreements. In this setting, private stakeholders are explicitly rather than covertly in the frame, with their options and some ability to induce transformation and participate in decision-making (Table 1). Therefore, the decision-making chain and the managerial contribution take on particular importance; it is not so much the strength of the constraint as the structure of the decision-making system that creates a variety of expectations and obligations.

FEATURE	CIVIL LAW SYSTEM	COMMON LAW SYSTEM
Areas	Continental Europe	Anglo-Saxon countries
Bodies entrusted with public interest	Public bodies are the only organizations in charge of pursuing general interest issues rigidly following the institutional hierarchy	Legal, socio-economic, and cultural milieu encourage other parties, such as higher education institutions, non-profit associations, foundations, trade associations to carry out binding agreements with public administrations.
Written constitution	Always.	Not always.
Judicial decisions	Not binding on 3 <sup>rd</sup> parties; however, administrative and constitutional court decisions on laws and regulations binding on all.	Binding.
Writings of legal scholars	Significant influence in some civil law jurisdictions.	Little influence.
Freedom of contract	Limited - a number of provisions implied by law into contractual relationship.	Extensive – only a few provisions implied by law into contractual relationship.

[1] Article 5(3) of the Treaty on European Union (TEU) and Protocol (No 2) on the application of the principles of subsidiarity and proportionality.

Table 1. Summary of differences between civil law and common law legal systems. Adapted from <https://onlinelaw.wustl.edu>

The Interreg MED TUNE UP - *Promoting multilevel governance for tuning up biodiversity protection in marine areas*, funded under the Call 2019 faces the need for a strategic and collaborative approach to Med Marine Protected Areas (MPAs) management and biodiversity protection.

The TUNE UP approach is based on vertical and horizontal subsidiarity in order to achieve effective coordination among institutions at all involved levels by integrating funding, planning tools and human resources while limiting raising conflicts between preservation and economic issues.

The core idea is to exploit the feasibility and flexibility of the Environmental Contract methodology in MPAs management with the main goal of biodiversity conservation. Before formal arrangements, concertation among public and private stakeholders stems from a voluntary and participatory process along a shared road-map. In the end of this phase, a Memorandum of Understanding incepts the formal phase calling for public-private partnerships in binding arrangements in terms of liability, financing and timing.

This document resumes the main steps and phases faced by the TUNE UP Partnership under the coordination of the Lead Partner, ANATOLIKI, in the implementation of 10 MPA Contracts in Mediterranean countries (Table 2).

<b>LP1</b>	ANATOLIKI S.A. – Development Agency of Eastern Thessaloniki’s Local Authorities	Greece	Thermaikos Gulf
<b>PP1</b>	FAMP – Andalusian Federation of Towns and Provinces	Spain	Cabo De Gata - Níjar
<b>PP2</b>	MedWet – the Mediterranean Wetlands Initiative	France	
<b>PP3</b>	Medsea – Mediterranean Sea and Coast Foundation	Italy	Sinis Peninsula - Mal Di Ventre Island
<b>PP4</b>	Albanian Ministry of Tourism and Environment	Albania	Karaburun Sazan
<b>PP5</b>	ZRC SAZU – Research Centre of the Slovenian Academy of Sciences and Arts	Slovenia	Se ovlje Salin
<b>PP6</b>	SEO/Birdlife – Spanish Ornithological Society	Spain	Albufera de Valencia
<b>PP7</b>	Tour du Valat Foundation	France	Former Saltworks of Camargue
<b>PP8</b>	University of Montenegro – Institute of Marine Biology -	Montenegro	Boka Kotorska Bay - Sopot and Drazin vr
<b>PP9</b>	Amvrakikos Gulf – Lefkada Management Agency	Greece	Amvrakikos Gulf
<b>PP10</b>	Department of Architecture – Roma Tre University	Italy	Ventotene and Santo Stefano Islands
<b>PP11</b>	Aquaprogram srl	Italy	

Table 2. Table 2. The Partnership of the TUNE UP Project

Chapter 1 provides an overview of the MPAs in the Mediterranean basin, reporting their current status with regard to the legal framework and highlighting some differences in management typologies that prove a disadvantage when it comes to protection issues to be shared.

Chapter 2 deals with inner and outer views on current dynamics and processes affecting the Mediterranean, whose main environmental challenges from now to year 2030 concern the extension to 30% of the sea surface protection deemed crucial to perform best connections among the MPAs in view of their effective management.

Chapter 3 delves into all stages of the Environmental Contracts, from their inception to the Action Plan, notably stressing the need of awareness raising among insiders and outsiders of the inherent value to be protected and enhanced.

Chapter 4 reports the main issues emerged in the TUNE UP pilots during the participation process until the signature of the Memorandum of Understanding. Besides common concerns – climate change, rise in sea level and temperature, irresponsible behavior in exploiting sea economies, etc. – the heterogeneity of the case studies is both due to site-specific marine living resources exposed to concurrent events, and to different institutional frames generally conveying a broad array of planning and regulatory tools, sometimes interfering, or even conflicting with each other. Closer inspections with focus groups and territorial labs made it possible to draft for each pilot three shared scenarios – the trend one, the oriented one and the preferred one – on three strategic topics of (i) governance; (ii) environment, and; (iii) economic and social development, as well as to frame the criticalities and potentialities. This common path, highlighting recurrent features as well as specific issues raised by each MPA, allows for a comparison table useful to detect the main deadlocks requiring policy directions to streamline the process.

The conclusions summarize the lessons learned from our pilots, providing researchers and practitioners with recommendations able to achieve collaborative environmental governance in marine areas.

Every pilot is different and the way the process should be managed will differ in each case. Therefore, managing a MPAs is not a routine job, requiring considerable capabilities and skills from both public and private actors, along with patience and foresight. Some results seem valuable for developing a governance agenda for the future. As stressed by influential scholars, there is still a large gap in our knowledge on MPAs, also in terms of sea life maintenance and reproduction, and much work remains to be done.

**1.**  
**An overview on Mediterranean  
Marine Protected Areas**





## 1.1 Mediterranean Marine Protected Areas

Carolina Pozzi, Romina D'Ascanio, Flavio Monti

Marine Protected Areas (MPAs) are zones of sea and coast placed under protection because of their ecological importance. The term “Marine Protected Area” has been specifically defined for the first time in 1994 by the International Union for Conservation of Nature (IUCN) as “any area of subtidal, intertidal and supratidal terrain, together with its overlying water and associated flora, fauna, historical and cultural features, which has been reserved by law or other effective means to protect part or all of the enclosed environment (IUCN, 1994; Kelleher, 1999). Moreover, an MPA needs to meet the general IUCN definition of protected areas as “a clearly defined geographical space, recognised, dedicated and managed, through legal or other effective means, to achieve the long-term conservation of nature with associated ecosystem services and cultural values” (IUCN/WCPA, 2008b; Day et al., 2008; Claudet et al., 2011; Dudley&Stolton, 2012).

According to that, MPAs represent a mainstay of biodiversity conservation of marine life, while also contributing to people’s livelihoods. MPAs are at the core of efforts towards conserving nature and the services they provide. The role of MPAs is to provide a secure base for threatened species, ecosystems and ecological processes, including the species that have not yet been discovered and for which therefore dedicated conservation actions are not possible. Well-governed

and effectively managed MPAs are powerful tools to combat the over-exploitation of marine resources and degradation of ocean habitats, protecting both habitats and species’ populations and delivering important ecosystem services (Agardy et al., 2011). In general, three types of MPA can be distinguished (UNEP-WCMC, 2008):

- MPAs that are entirely marine, containing subtidal and inter-tidal but no terrestrial habitat;
- MPAs that contain terrestrial, intertidal and subtidal components; the relative size of each component may vary between two extremes: i) those with a large portion of land in which case the marine part is often overlooked; ii) those with a very small amount of land in form of beaches or small islands in which case the protected area is often managed as a marine area only;
- MPAs that contain terrestrial and intertidal ecosystems only such as mangroves or marshes.

Considering these different definitions, it becomes clear that the concept of MPA could be interpreted in different ways, encompassing a wide range of area-based management tools, established under various designations, at various levels (subnational, national, regional and international), and providing different degrees of protection. Thus, there is an array of differing statuses of MPAs in the Mediterranean Sea (Fig.1-2):

[1] It should be noted that since new estimates will be provided and released by MedPan by the end of 2021, this Chapter refers to MedPan’s data reported in 2016 or other available information.

On the left: Amvrakikos Gulf fauna. Credit: Amvrakikos Gulf-Lefkada Management Agency



Figure 1 - Maps of the different levels of marine protection at Mediterranean level. Source: MAPAMED, MedPan and SPA/RAC (2019), (Source: <http://medpan.org/main/activities/mapamed/>)



Figure 2 - Maps of the other sites of interest for conservation at Mediterranean level. Source: MAPAMED, MedPan and SPA/RAC (2019), (Source: <http://medpan.org/main/activities/mapamed/>)

- *National designated MPAs*, defined as conservation sites declared under country specific designations (e.g. national parks, natural marine parks, natural monuments, nature reserves): 190 sites that cover 1.27% or 32,065 km<sup>2</sup> of the Mediterranean Sea (MedPan, 2016).
  - *Marine Natura 2000 sites - Sites of Community Importance (SCIs), Special Areas of Conservation (SACs), Special Protection Areas (SPAs)*, identified under Habitats and Birds EU Directives: 882 sites that cover 2.5% or 63,000 km<sup>2</sup> (MedPan, 2016).
  - *Fisheries Restricted Areas (FRAs)*, established by the General Fisheries Commission for the Mediterranean (GFCM): 7 sites that cover 0.62% or 15,668 km<sup>2</sup> (MedPan, 2016).
  - *Specially Protected Areas of Mediterranean Importance (SPAMI)*, adopted by the Barcelona Convention: 34 sites that cover 3.57% or 89,856 km<sup>2</sup> (MedPan, 2016).
- Other sites of interest of conservation are:
- *Ramsar sites*: 97 sites that cover 0.13% or 3,350 km<sup>2</sup> (MedPan, 2016).
  - *UNESCO World Heritage sites*: 3 sites that cover 0.01% or 206 km<sup>2</sup> (MedPan, 2016).
  - *UNESCO Man And Biosphere reserves*: 7 sites that cover 0.06% or 3,350 km<sup>2</sup> (MedPan, 2016).
- This whole array of different designations does not afford the same conservation strength: each tool has its own objectives, design, legal provisions, operational capacity, and protection level. IUCN (International Union for the Conservation of Nature) in 2008 proposed a classification system for terrestrial and marine protected areas based on their management objectives.
- This system is recognised worldwide (although not applied by all countries or for each site) and comprises 6 management categories:
- Category I - Protected area managed

- Category II - Protected area managed mainly for ecosystem protection and recreation (National Park).
  - Category III - Protected area managed mainly for conservation of specific natural features (Natural Monument or features).
  - Category IV - Protected area managed mainly for conservation through management intervention (Habitat/Species Management Area).
  - Category V - Protected area managed mainly for landscape/seascape conservation and recreation (Protected Landscape/Seascape).
  - Category VI - Protected area managed mainly for the sustainable use of natural ecosystems (Managed Resource Protected Area).
- MPAs are perceived as instruments for improving both fishery management and marine environmental protection. Both Convention of Biological Diversity and IUCN recommend that a range of types of management be considered when designing a protected area system and emphasise that protected areas should not be seen as isolated objects, but as part of the broader ecosystem approach to conservation, implemented across land and seascape. The following schemes of MPA management can be identified (UNEP-WCMC, 2008):
- *No-take areas*: where all forms of exploitation are prohibited and human activities severely limited. These no take zones can cover an entire MPA, or specific portions.
  - *Multiple-use areas*: where different levels of protection can take effect. The most important areas get the highest protection being designated as *no take zone* and are buffered from edge effects by one or more surrounding zones with lower



protection. The vast majority of MPAs fall into this category.

- *Community-managed areas:* where local communities are empowered to operate partially or completely independently from the governmental jurisdictions to manage resources lowering conflicts and soliciting the support of diverse groups that rely on MPAs' resources such as subsistence and commercial fishers, scientists, recreation, tourism businesses,

youths and others.

- *Seasonal and temporary management areas:* where activities, most critically fishing, are restricted seasonally or temporarily. These are important conservation areas or areas falling on migratory routes, where species are vulnerable at specific and predictable times of the year, therefore may not need any greater protectionscheme than surrounding the areas in specific moments.

## 1.2 An outlook of the status of MPAs in the Mediterranean

*Flavio Monti, Alessio Satta*

The Mediterranean basin is considered as one of the most important hotspots of biodiversity in the world in terms of richness of species (many endemic and rare species in need of conservation) and ecosystems (IUCN factsheet). However, human activities and overexploitation of natural resources are resulting in ecosystem degradation and species lost at an alarming rate. In the Mediterranean, the most impacting anthropogenic stressors faced by marine species threatened with extinction are represented by overfishing (48%), habitat destruction (26%), pollution (13%) and invasive species (6%) (Luyptaert et al., 2020). The prime conservation tool for biodiversity maintenance is represented by protected areas: in the marine environment, this role is played by Marine Protected Areas (MPAs) which have proven to be efficient ecosystem-based management tools for the conservation of the marine kingdom from benthic communities, the pelagic ecosystem and its associated main predators (Lubchenco and Grorud-Colvert, 2015). Marine areas can also include coastal wetlands (e.g. areas of marine water the depth of which at low tide does not exceed six meters; Ramsar Convention on Wetlands ) as transitional zones between sea and land, which are among the most productive ecosystems in the world (MedWet ). However, to safeguard and secure the well-being of the species and habitats these

areas host (EEA, 2018), MPAs need to be well-enforced and connected through a network of geographically distinct marine regions allowing marine wildlife to move and disperse securely. This requires a harmonized properly management plan and multilevel governance to operate as an effective protection tool for halting the loss of marine biodiversity and abating human-induced threats, such as fishing, marine traffic and recreational activities (Mazaris et al., 2019). A plethora of international legislations and policies as well as regional instruments/tools currently assist countries in the protection and management of such fragile ecosystems, at various spatial scales. For example, Parties to the Convention on Biological Diversity agreed on an ambitious long-term plan for protecting the seas and reversing the degradation of marine and coastal ecosystems, with the objective to manage aquatic stocks in a sustainable way to avoid overfishing and create by 2020, a network of Marine Protected Areas covering at least 10% of coastal and marine areas (CBD Aichi Target 11), constituting an ecologically representative and well connected network, effectively conserved and equitably managed. This target is even shared by a specific UN Sustainable Development Goal (SDG14: conserve and sustainably use oceans, seas and marine resources). However, in 2021, results show that this goal has been

[2] [www.ramsar.org/](http://www.ramsar.org/)

[3] [www.medwet.org/](http://www.medwet.org/)

achieved only in part and with different investments by countries.

According to the last MedPan Report (2016) only a small fraction (6-7%) of the total surface of the Mediterranean Sea is legally protected, corresponding to 1.215 Marine Protected Areas (MPAs) and Other Effective Area-based Conservation Measures, covering 171.362 km<sup>2</sup> that places a surface of 6.81% under a legal designation (MedPan, 2016). This means that to reach the 10% quantitative part of the Aichi Target, an additional 71,900 km<sup>2</sup> (2.86 % of the Mediterranean) would need to be placed under strong protection designations that also target currently under-represented features. The geographical distribution of protected areas at sea is heterogeneous in the region, with over 72.77% of the protected surface covered located in the Western Mediterranean, and the 90.05% of the total surface covered by MPAs and OECMs found in EU waters (MedPan, 2019).

As reported by Claudet et al. (2020), scientific evidence supports that fully protected areas effectively act to conserve biodiversity of marine areas, but most of what is being established until now benefits of only partial protection. For most sites, little is known about the management measures in place and if they are effective at maintaining or restoring the biodiversity they aim to protect (MedPan, 2016). Many sites are not effectively implemented and there are no regulations in place to curb existing pressures or enough means to enforce them. It appears that the human and financial means allocated to management are too low, thereby compromising successful conservation (MedPan, 2016). All this highlights

how complex is the MPA situation in the Mediterranean and that there is the need to implement our efforts at managing human uses of marine areas and at boosting protection levels to deliver tangible benefits for biodiversity conservation.

In the last years, despite the increasing number of Mediterranean countries who have developed specific management policies for marine and coastal areas (e.g. EU-Marine Strategy Framework Directive, the Natura 2000 network), only a few of them are implementing these policies effectively. A major reason is that relevant legislation and policies are relatively new, and managerial bodies lack human, financial and organizational capacities. A discrepancy exists between the official guidance and actual planning and management practices. Furthermore, the lack of basic information on marine areas, their ecological characteristics, conservation status and temporal trends often contribute to exacerbate these problems and hamper the possibility to plan adequate management measures at the right level (PAP/RAC, 2019). It also should be noted that, at the present moment there is no unified model of marine and coastal areas governance for the entire Mediterranean region: each State has its own administrative structure and culture. Some are long established, some newly evolving, while others are in the process of modernisation (PAP/RAC, 2019). Governance scale varies from small rural communes, to large urban municipalities, regions or governorates. Local administration also differs in its remit - some operating under powers delegated by the central government,

others operating by central directive (PAP/RAC, 2019). Moreover, MPAs and coastal wetlands are often challenged by the overlap of interests, levels of spatial planning and authorities in charge of their preservation and management, and have limited coordination and capabilities of administrative authorities to handle their complex territorial dynamics (e.g. Horvat and Smrekar, 2021). The mutual cooperation of relevant stakeholders from different sectors and implementation of participatory processes are insufficient and severely underestimated, which has led to conflicts between various interests, mainly concerning preservation issues and economic activities (e.g. Horvat and Smrekar, 2021). All this requires the adoption of integrated and flexible models of governance, often hampered by the

lack of comprehensive information on national and regional territorial strategies. Therefore, providing Mediterranean countries with state-of-the-art tools and methods to conduct or complete such territorial strategy assessments is crucial. This information can serve as a base for developing solid and long-term implementation processes of adapted governance models through the engagement of decision-makers and local stakeholders, aiming at a sustainable use and management of marine and coastal areas (including wetlands), their resources and the valuable biodiversity these ecosystems host. This represents the first step toward the successful governance and efficient long-term management of these sites, as well as the way to provide updated information to policy makers and MPAs practitioners/stakeholders.

### 1.3 Legal framework and policies for coastal and marine environment protection

Carolina Pozzi, Andrea Rossi, Stefano Salviati

To address the need to protect the natural environment and help reduce the current rate of biodiversity loss, a set of legal instruments has been established at various levels. A range of relevant international legislations and policies for coastal and marine environment protection is reported at global, European and Mediterranean level.

#### International references

- *UN Convention on the Law of the Sea*<sup>4</sup> (Montego Bay, 1982) puts the basis for a legal framework in marine regulations by establishing rules governing all uses of the oceans and their resources. It defines a regulatory framework in environment conservation themes relating to living resources, fishing management, scientific research cooperation, and preservation of important migratory species.
- *Convention on Biological Diversity*<sup>5</sup> (CBD) (Rio de Janeiro, 1992) and related Aichi Biodiversity targets<sup>6</sup> (ABT). The CBD is a relevant mechanism for the protection of wetland areas, adopting an action plan on ecosystem restoration, intended to be a flexible framework to promote the restoration of degraded natural and ecosystems. The ABT are part of the Strategic Plan for Biodiversity 2011-2020. Target 5 aims to at least halve, and ideally eliminate, loss of natural habitats by 2020, and Target 11

aims to conserve at least 17% of terrestrial and inland water, and 10% of coastal and marine areas by 2020. Target 10 focuses on conservation of coral reefs, Target 6 on sustainable use of aquatic species and Target 7 on management of aquaculture.

- *Convention on Wetlands of international importance*<sup>7</sup> (Ramsar, 1971) is an intergovernmental treaty whose mission is “the conservation and wise use of all wetlands through local, regional and national actions and international cooperation, as a contribution towards achieving sustainable development throughout the world”.
- *UNESCO Convention on the Protection of the World Cultural and Natural Heritage*<sup>8</sup> (Paris, 1972) aims to catalogue, name, and conserve sites of outstanding cultural or natural importance to the common culture and heritage of humanity.
- *UNESCO Convention on the Protection of the Underwater Cultural Heritage*<sup>9</sup> (Paris, 2001) aims to enable States to better protect their submerged cultural heritage by setting out basic principles for protecting underwater cultural heritage, pointing out a detailed State cooperation system, and providing practical rules for the treatment and research of underwater cultural heritage.
- *Convention on the Conservation of Migratory Species of Wild Animals*<sup>10</sup>

(Bonn, 1979) provides a global platform for the conservation and sustainable use of migratory animals and their habitats.

- *Convention on International Trade in Endangered Species of Wild Fauna and Flora*<sup>11</sup> (CITES) (Washington D.C., 1973) aims to ensure that international trade in specimens of wild animals and plants does not threaten their survival and the UN Framework Convention on Climate Change (UNFCCC).
- *UN 2030 Agenda for Sustainable Development*<sup>12</sup> (2015) adopted 17 Sustainable Development Goals (SDGs) and 169 associated targets to call action to end poverty, protect the planet and improve the lives and prospects of everyone, everywhere. Coastal and marine protection is mainly addressed by Goal 14 “Conserve and sustainably use the oceans, seas and marine resources”.

[11] [www.cites.org/eng/disc/what.php](http://www.cites.org/eng/disc/what.php)  
 [12] [www.un.org/sustainabledevelopment/development-agenda/](http://www.un.org/sustainabledevelopment/development-agenda/)  
 [13] [www.ec.europa.eu/environment/marine/eu-coast-and-marine-policy/marine-strategy-framework-directive/index\\_en.htm](http://www.ec.europa.eu/environment/marine/eu-coast-and-marine-policy/marine-strategy-framework-directive/index_en.htm)  
 [14] [www.msp-platform.eu](http://www.msp-platform.eu)  
 [15] [www.ec.europa.eu/environment/nature/legislation/birdsdirective/index\\_en.htm](http://www.ec.europa.eu/environment/nature/legislation/birdsdirective/index_en.htm)  
 [16] [www.ec.europa.eu/environment/nature/legislation/habitatsdirective/index\\_en.htm](http://www.ec.europa.eu/environment/nature/legislation/habitatsdirective/index_en.htm)  
 [17] [www.ec.europa.eu/environment/water/water-framework/index\\_en.html](http://www.ec.europa.eu/environment/water/water-framework/index_en.html)  
 [18] [www.coe.int/en/web/landscape](http://www.coe.int/en/web/landscape)  
 [19] [www.coe.int/en/web/bern-convention](http://www.coe.int/en/web/bern-convention)  
 [20] [www.ec.europa.eu/environment/strategy/biodiversity-strategy-2030\\_en](http://www.ec.europa.eu/environment/strategy/biodiversity-strategy-2030_en)

- *Birds*<sup>15</sup> (2009/147/EC) and *Habitats*<sup>16</sup> (92/43/CEE) Directives. The Birds Directive requires Member States to preserve, maintain and re-establish sufficient extent and diversity of habitats for all wild birds, whilst the Habitats Directive requires Member States to report on compensation measures taken for projects having a negative impact on Natura 2000 sites.
- *Water Framework Directive*<sup>17</sup> (2000/60/CE) aims at the protection of inland surface waters (rivers and lakes), transitional waters (estuaries), coastal waters and groundwater. It seeks to ensure that all aquatic ecosystems and, regarding their water needs, terrestrial ecosystems and wetlands, attain “good status”.
- *European Landscape Convention*<sup>18</sup> (Florence, 2000) aims to encourage public authorities to adopt policies and measures at local, regional, national and international levels for protecting, managing and planning landscapes throughout Europe.
- *Convention on the Conservation of European Wildlife and Natural Habitats*<sup>19</sup> (Bern, 1979) aims to conserve wild flora and fauna and their natural habitats, as well as to promote European co-operation in this field. Special attention is given to endangered and vulnerable migratory species.

#### European references

##### EU Directives and Conventions:

- *Marine Strategy Framework Directive*<sup>13</sup> (MSFD) aims to achieve Good Environmental Status (GES) of the EU’s marine waters by 2020 and to protect the resource base upon which marine-related economic and social activities depend.
- *Marine Spatial Planning Directive*<sup>14</sup> (MSPD) aims to provide a more coherent approach to maritime issues with increased coordination between different policy areas. It is the key instrument to ensure the best use of marine spaces and promote sustainable economic development.

##### EU Strategies:

- *Blue Growth Strategy* supports the growth of the maritime sector in a sustainable way. It is the maritime contribution to achieving the goals of the Europe 2020 strategy for smart, sustainable and inclusive growth.

- *Biodiversity Strategy for 2030*<sup>20</sup> aims to establish protected areas of at least 30% of land and sea in Europe, to restore degraded ecosystems by increasing sustainable agriculture, halting the decline of pollinators, restoring at least 25,000 km of EU rivers to a free-flowing state, reducing the use and risk of pesticides by 50% and planting 3 billion trees by 2030.
- *Green Infrastructure Strategy*<sup>21</sup> (2013) highlights the importance of maintaining and restoring functional ecosystems as a foundation for a sustainable Europe. With the Natura 2000 protected areas as its backbone, the Strategy seeks to ensure the presence of patches of representative vegetation types, thus establishing ecological networks.

#### EU Policies:

- *Common Fisheries Policy*<sup>22</sup> provides a set of rules for sustainably managing European fishing fleets and conserving fish stocks.
- *Integrated Maritime Policy*<sup>23</sup> aims at strengthening the so-called blue economy, encompassing all sea-based economic activities, it is based on the idea that the Union can draw higher returns from its maritime space with less impact on the environment by coordinating its wide range of interlinked activities related to oceans, seas, and coasts.

#### Mediterranean references

- *Mediterranean Action Plan*<sup>24</sup> (1975) is a fundamental European platform of cooperation and multilateral environmental agreement under the United Nations Environmental Programme (UNEP) that put the basis for the

- enactment of the subsequent Barcelona Convention (1976).
- *Barcelona Convention*<sup>25</sup> (1976) aims are the Protection of the Marine Environment and the Coastal Region of the Mediterranean. The treaty is composed of 7 protocols, of which two are strictly related to the Marine Protected Areas field of interest:
  - *the Protocol concerning Special Protected Areas and Biological Diversity in the Mediterranean* (SPA/BD Protocol) deals with the in situ sustainable management of coastal and marine biodiversity by means of three main tools: The creation, protection, and management of Specially Protected Areas (SPAs), The establishment of a list of Specially Protected Areas of the Mediterranean Importance (SPAMIs) and the protection and conservation of species;
  - *the Integrated Coastal Zone Management Protocol* (ICZM Protocol) (Madrid, 2008) is a dynamic process for the management and sustainable use of coastal zones, taking into account the fragility of ecosystems and coastal landscapes, diversity of anthropic activities, maritime vocation, and their interactions and impacts on both marine and terrestrial components.
- *Agreement on the Conservation of Cetaceans*<sup>26</sup> (ACCOBAMS) (Monaco, 1996) provides each signatory with a regulatory, socio-economic and scientific commitment to eliminate or minimize the effects of anthropogenic activities on the survival of cetaceans.
- *General Fisheries Commission for the Mediterranean*<sup>27</sup> (GFCM)

[21] [www.ec.europa.eu/environment/nature/ecosystems/index\\_en.htm](http://www.ec.europa.eu/environment/nature/ecosystems/index_en.htm)

[22] [www.ec.europa.eu/oceans-and-fisheries/policy/common-fisheries-policy-cfp\\_en](http://www.ec.europa.eu/oceans-and-fisheries/policy/common-fisheries-policy-cfp_en)

[23] [www.ec.europa.eu/info/research-and-innovation/research-area/oceans-and-seas/integrated-maritime-policy\\_en](http://www.ec.europa.eu/info/research-and-innovation/research-area/oceans-and-seas/integrated-maritime-policy_en)

[24] [www.unep.org/unepmap/](http://www.unep.org/unepmap/)

[25] [www.rac-spa.org/framework](http://www.rac-spa.org/framework)

[26] [www.accobams.org/about/introduction/](http://www.accobams.org/about/introduction/)

[27] [www.fao.org/gfcm/en/](http://www.fao.org/gfcm/en/)

(1949) is a regional marine fisheries organization and aims to ensure the conservation and the sustainable use, at the biological, social, economic and environmental level,

of living marine resources as well as the sustainable development of aquaculture in the Mediterranean and in the Black Sea.

#### Additional resource

#### MPA REGULATIONS<sup>28</sup>

##### ALBANIA

In Albania the Law “On Protected Areas”, no. 81/2017 (of May 4th 2017), regulates the designation, day to day administration and management of protected areas and specifically of marine national parks and MPAs. It establishes the legal framework for the declaration, conservation, administration, management and use of the protected areas and their natural and biological resources, as well as facilitating conditions for the development of environmental tourism, public information and education, and the generation of direct and indirect economic benefits by local populations and private sectors. It also makes provision for six categories of protected area – Strict Nature Reserve/Scientific Reserve, National Park, Natural Monument, Managed Natural Reserve, Protected Landscape and Protected Area of Managed Natural Resources. Other strategies and governance tools in force at national level concerning MPAs regulation and protection schemes are: Document of Strategic Policies on Biodiversity Protection 2015-2020, National Strategy of Development and Integration 2015-2020, National Strategy on Climate Change to 2030, Integrated Waste Management Strategy 2020-2035.

##### FRANCE

Since 2007 important developments have taken place in France to create a network of MPAs: the adoption in 2009 of the national strategy for the sea and oceans, in 2009 and 2010, the Grenelle laws establishing an integrated maritime policy and, in 2011, the adoption of the Marine Strategy Framework Directive. At national level, the law of 14 April 2006 created the MPAs Agency. The decree 2006-1266 of 16 October 2006 specifies the categories of Marine Protected Areas that fall within the scope of the Agency (French Agency for Biodiversity). Each category has its specific regulations and obligations. The laws, including Law 2004-338 of 21 April 2004, transposing Directive 2000/60/EC establishing a framework for Community action in the field of water policy, the law 2006-1772 of 30 December 2006 on water and aquatic environments (LEMA) and the law 2009-967 of 3 August 2009 on the implementation of the Grenelle of the environment (Grenelle 1) have established the framework for environmental schemes in France. The vast majority of national texts relevant to MPAs are included in the French Environmental Code (Book III,

[28] Only country included in Tune Up project (Sources: coordinator Aquaprogram and each project partner contributed for its Country)

Title III, Chapter IV on MPAs). The creation of a marine nature park is the responsibility of the State. It can only be carried out after a public inquiry, during which the public can express opinions on the creation file. This file is submitted for opinion to the persons and organizations directly interested in the project. The creation of a marine nature park takes the form of a decree.

#### **GREECE**

In Greece, the main law concerning MPAs and defining the managing structures is Law 1650/1986. Special Environmental Studies and Management Plans are currently in elaboration in all Natura 2000 sites in order to establish specific zoning systems, appropriate restrictions on land use and activities, administrative and operational regulations, as well as conservation objectives and management goals. The Management Plans will be in force after their consolidation by Presidential Decrees. Law 4685 of 7 May 2020 established a new National Policy Governance System for Protected Areas: at central level it includes the Natural Environment and Climate Change Agency (NECCA); at regional/local level it includes Protected Areas Management Units (PAMU), Decentralized Administrations, Regions and Municipalities having specific responsibilities.

#### **ITALY**

In Italy 48 “Marine retrieval areas” are identified at the national level through Laws 979/82 art. 31, 394/91 art. 36, 344/97 art.4 and 93/01 art. 8. Among these, 27 have been already established and 17 are going to be established since a technical-administrative process is underway. The remaining 5 have only been indicated by the law as deserving of protection, but no administrative procedure has begun yet for their formalization. Currently about 228 thousand hectares of sea and about 700 kilometres of coastline are protected. The management of the MPAs is entrusted to public bodies, scientific institutions or recognized environmental associations, including consortia. Italian MPAs are usually managed through a three zones protection scheme, applying different degrees of protection. The management tools are the reserve Management Plan and the related Implementation Regulation.

#### **MONTENEGRO**

In Montenegro the Law on Nature Protection (Official Gazette 54/16) is the main regulatory framework for the protected areas, prescribing that the parts of nature of exceptional values characterized by biological, geological, ecosystem and areal diversity may be declared as protected natural assets. The procedure for declaring protected areas shall be initiated with a request, be submitted by the Ministry, for developing the expert study. The protection study shall be developed by the administration body (Nature

and Environmental Protection Agency). The Parliament shall declare the national park by adopting a law, since the protected marine areas with a territory that partly or fully enters the zone of the marine area shall be declared by the Government, excluding the national park. Public participation during the establishment of protected area is also prescribed by the law. It also prescribes manager of the protected areas and their obligations stating that the protected areas, not including national parks, which are situated at the territory of the marine area, shall be managed by the legal person competent for managing the marine area.

#### **SLOVENIA**

In Slovenia, the Nature Conservation Act defines all issues related to nature conservation, which from 1999 includes the protection of valuable natural features, former natural heritage sites as well as the conservation of biodiversity through the protection of endangered animals and plants through ecologically important areas and following the Habitat Directive, especially through Natura 2000 sites. All these areas were designated based on a systematic inventory of the natural heritage in the Slovenian coastal area, carried out in the 1980s.

#### **SPAIN**

In Spain the MPA figure is created in the framework of Law 47/2007 (Law on Natural Heritage and Biodiversity), but the formal creation of the Network of Marine Protected Areas of Spain (RAMPE) was done under Law 41/2010 (Law on the Protection of Marine Environment). The network includes marine Natura 2000 sites. For other sites, Royal Decree 1599/2011, in accordance with article 26 of Law 41/2010, sets the criteria that Marine Protected Areas under State and Regional jurisdiction must respect for their integration into the RAMPE. The body responsible for the management and operation of RAMPE is be the General Directorate for Natural Environment and Forest Policy of the Ministry with competences on the environment. Furthermore, 5 National Demarcations are defined under the Law 41/2010. With the intention of facilitating the national coordination of the application of their own marine strategies the Inter-Ministry Commission for Marine Strategies (CIEM) was created (Royal Decree 715/2012 of April 20th 2012). Its main functions are aimed at preparing, applying, and monitoring the planning of the marine environment. For each demarcation a marine strategy must be developed, with a 6-year update term.



## 1.4 International targets: achievements and future steps

Christina Kassara, Kallia Spala

The biodiversity wealth of the Mediterranean semi-enclosed Sea is subject to anthropogenic disturbances, including coastal development related to urban expansion, agriculture, industry and tourism, pollution and introduction of exotic species related to marine transport, overexploitation of fishing stocks, as well as to more recent pressures, such as the proliferation of aquaculture, the consequences of climate change and the exploration and extraction of conventional and renewable energy sources that affect water quality and population dynamics, but also incur space conflicts with marine conservation and traditional practices. The principal regional legally binding Multilateral Environmental Agreement for the protection of the Mediterranean Sea is the Barcelona Convention and its seven protocols aimed to tackle pollution and enhance the marine environment to achieve sustainable development in the area. Pursuant to its provisions, since 1950 the contracting parties have been designating Marine Protected Areas (MPAs) and Other Effective area-based Conservation Measures (OECMs) totalling in 2016 1,215 sites that correspond to 6.81% of Mediterranean waters (MedPAN and SPA/RAC, 2019). At the regional level, the EU's Marine Strategy Framework Directive also calls for Good Environmental Status by 2020, meaning ecologically diverse and dynamic oceans and seas that

are clean, healthy, and productive. Applicable across sites included in the EU Natura 2000 network, the Habitats' and Birds' Directives set the frame for the achievement of favourable conservation status for annexed species and habitats. At the international level, the Aichi Target 11 under the Convention on Biological Diversity foresees that by 2020 “[...] 10% of coastal and marine areas, especially areas of particular importance for biodiversity and ecosystem services, are conserved through effectively and equitably managed, ecologically representative and well-connected systems of protected areas and other effective area-based conservation measures and integrated into the wider landscapes and seascapes”. It is highly likely that this target will increase to 30% based on the zero draft for CBD COP15 (UNEP, 2020). The 10% target is also explicitly included in the UN Sustainable Development Goal 14 for 2020, as well as in the updated agenda for 2030. Furthermore, the IUCN resolution of 2016 called for an even stricter target at a global scale, according to which at least 30% of each marine habitat must be found within the MPA network of the regional sea to ensure representativity and should be designated as no-take zone by 2030 to achieve effective management. The majority of MPAs and OECMs (90.05% of their total surface) in the Mediterranean Sea are found in EU

[29] MedPan. Mediterranean challenges. <http://medpan.org/mediterranean-realities>

waters (MedPAN, 2019). According to a study assessing the progress made between 2012 and 2016 regarding MPA networks in Europe's seas (Agnesi S. et al., 2017), also summarized in the 2018 report by EEA (EEA, 2018), there is some room for optimism but also a long road to safeguard marine biodiversity, the ecosystems, and the services they provide (10.8% of its sea waters designated as MPAs in 2016). However, European MPAs are mainly located in coastal waters, therefore large parts of sea waters and their biodiversity features, especially deeper sea habitats, are not adequately represented in the MPA network. Moreover, with more than half of the MPAs covering a surface of less than 5 km<sup>2</sup> the provision of ecosystem services in Europe's seas is challenged. Progress on the aforementioned indicators in the Mediterranean Sea has been slower compared to the rest of EU regional seas, especially so in its eastern part. Within the EU, the Natura 2000 network has undoubtedly been contributing to the connectivity of MPAs but also in the application of management and conservation measures in MPAs. Still, the quality of management in European MPAs is rated low, given the lack of and/or the vagueness of existing management plans, the scarcity of fully protected areas, the lack of adequate funding and resources that in turn undermine efforts for environmental monitoring, and the lack of systematic and transparent reporting (WWF, 2019). Thus, effectively managed MPAs are not the rule in the EU and Mediterranean MPAs are no exception to that. Even more, the Mediterranean MPA network is not ecologically coherent, its weakest points being representativity (only a third of

all Mediterranean habitats reach the minimum 30% representativity within the MPA network), and connectivity (only a sixth of the habitats have enough connections within the MPA network) (WWF, 2019). Finally, according to a survey addressed to MPA managers, current challenges for Mediterranean MPAs also relate to complicated regulatory legal framework, non-inclusive governance and insufficient regulation and surveillance mechanisms (WWF, 2019). Therefore, to ensure a better future for Mediterranean MPAs that would enable them to fulfil international and European targets, the following lines of action should be prioritized:

- Expansion of MPA network.
- Reconsideration of MPA network design to ensure better representativity and connectivity.
- Improvement of knowledge on biodiversity components and ecosystem functions both within and outside MPAs.
- Enhancement of the drafting and implementation of MPA management plans across the network.
- Establishment of a reliable monitoring and evaluation system.
- Fostering participatory approaches within and beyond territorial waters to improve local and regional governance.
- Improvement of access to information through better reporting mechanisms, data sharing, and exchange of know-how and expertise among the network.
- Implementation of a clear and well-enforced and regulatory legal framework.
- Securing funds and resources for effective management.
- Establishment of no-take zones.

### THE STATUS OF MEDITERRANEAN MPAS IN NUMBERS

- MPA coverage in the Mediterranean Sea is 9.68% in 2019 (Gomei et al., 2019)
- Only 2.48% of the Mediterranean Sea is covered by MPAs with a management plan (Gomei et al., 2019)
- Only 1.27% of the Mediterranean Sea is effectively protected (Gomei et al., 2019)
- Only 0.03% of the Mediterranean is covered by fully protected areas (Gomei et al., 2019)
- Only 12% of the needs for effective MPA management are covered by regular financial resources (Binet et al., 2015)

*Additional resource*



On the right: Albufera de Valencia sealife. Credit: samarucdigital.com

**2.**  
**Open challenges for governance  
of Mediterranean coastal and  
Marine Protected Areas**



On the left: Becasseau sanderling. Author: Marc Thibault

## 2.1 Marine governance in action: criticalities, solutions and capacity building

*Giorgio Massaro*

Marine Protected Areas (MPA) are internationally recognized tools with the main purpose of conservation and restoration of marine biodiversity levels (Agardy et al., 2003). As widely demonstrated, this can take place more effectively when integrated approaches are adopted, making the regulations effective (MPA rule enforcement) (Guidetti et al., 2008), applying a correct management of activities capable of adequately adapting to changes (adaptive management) (Pomeroy et al., 2004) and involving local populations and different types of users (fishermen, tourists, entrepreneurs, citizens, ...) in management and governance processes (citizen science and co-management) (Guidetti and Claudet, 2010).

However, the choice and definition of management models does not appear simple, and this is partly due to the complexity of the contexts in which a MPA is established, many times through processes that have not considered an appropriate analysis of the local context and often underestimating the correct activation and maintenance of stakeholders' participatory processes (Beunen and de Vries, 2011).

Furthermore, as different categories of protected areas are identified on a global level according to the specific objectives and methods of use of the territory, in the Mediterranean area the MPAs, although characterized by environmental conditions however

similar, are operating in different socio-economic and governance contexts (Dudley, 2008). The type of management structures varies (individual local authorities, consortia, environmental associations, ...) as well as the functions, as administrative and financial management, control and surveillance, environmental monitoring and others.

It is important to set up a strategy and a management system capable of achieving the conservation objectives of marine resources through their sharing, understanding and, if necessary and possible, a participatory redefinition of the same; this in order to establish a set of actions in which the different parties can recognize their own utility and the satisfaction of their needs and rights (Di Franco et al., 2020).

The application of participatory methods turns out to be fundamental both to guarantee an adequate level of transparency in the definition of management choices, raising the involvement from simple information activities to co-management experiences, and to face and overcome/settle real territorial conflicts that undermine both the achievement of the conservation objectives, and the socio-economic development in MPAs (Saarman et al., 2013).

The identification of participatory approaches formally recognized internationally can therefore allow to overcome any limitations imposed

by some national regulatory systems that do not yet provide for processes of co-management of resources, introducing sharing and dialogue processes to replace the traditional top-down approach. This can also be done through the use of computer and web tools that help every participation level (Vasiliki et al., 2013). Accordingly, it is necessary to act by developing the skills of stakeholders in understanding

the functioning mechanisms of MPAs and participation in their governance. Through the analysis and mapping of stakeholders, it is possible to define the specific training needs and build a capacity-building plan focused on the interests and the possible roles and positions that the various subjects can / want to occupy in the management and governance system of the MPA.

## 2.2 A good practice on governance of coastal wetlands in the Mediterranean: the Handbook

*Brian Shipman*

Mediterranean coastal wetlands are amongst the most fragile and threatened ecosystems, but they are declining at an alarming rate. Today's wetland managers have a complex task, not only have to manage delicate ecosystems, but also reconcile a bewildering array of social, economic and political agendas, from the global to the local - this is governance. The need for good, effective and equitable governance to achieve their preservation is therefore urgent. In 2020 "the Governance of Coastal Wetlands in the Mediterranean – a Handbook"<sup>1</sup>, along with on-line tools by B. Shipman and Ž. Rajković<sup>2</sup> (PAP/RAC, 2019) was published as a practical guide for the governance of coastal wetlands to meet this need. Concise and based on real-world expertise, the Handbook is designed to support hard-pressed managers, officials and advisors. This is the first governance "recipe book" with linked, easy to use, on-line planning tools to help design efficient governance models that reduce conflict and save time.

The key messages of the Handbook are:

- Governance is about decisions;
- Who has power, authority, responsibility to take decisions?
- How are those decisions taken?
- How effective and efficient are the decisions?
- How accountable are the decision-makers?

Governance and management are

interrelated phenomena, governance drives the ongoing management, and, in turn management informs governance. Governance is about the long-term - building relationships, community support, and delivering actions. Most importantly, governance is not a short-term project, it is a long-term commitment extending well beyond the typical project lifespan. Four Mediterranean wetlands with radically different forms of governance provided valuable insights and reflections for the preparation of the Handbook: the Oristano Gulf, on the western Sardinian coast in Italy; the Ghar el Melh Lagoon, 30 km southeast of the town of Bizerte in Tunisia; the Lower Delta of the Bojana-Buna River, with its pilot site in Ulcinj Salina, in Montenegro and the Buna River-Velipoje Protected Landscape, in Albania. Useful insight was also provided by the Transboundary 'Prespa Park', a protected area including the Prespa Lakes and their surroundings extending over the boundaries of Greece, Albania, and the Republic of North Macedonia.

Among these, the particular case of the Oristano Gulf followed, through the Maristanis project<sup>3</sup>, a voluntary contract approach: a negotiated, shared and agreed process for implementing a coastal wetland integrated management model via an open and voluntary agreement in which interested parties joined freely. This approach aims at harmonise

[1] [medwet.org/publications/handbook-on-governance-of-mediterranean-coastal-wetlands/](https://medwet.org/publications/handbook-on-governance-of-mediterranean-coastal-wetlands/)

[2] The Handbook is part of the overarching initiative of the MAVA Foundation 'Coastal Wetland Action Plan'. Its preparation was initiated by the Priority Actions Programme Regional Activity Centre (PAP/RAC), coordinated and published under its leadership. It was supported by the International Union for Conservation of Nature (IUCN) and the MAVA Foundation for Nature.

[3] [www.maristanis.org](http://www.maristanis.org)



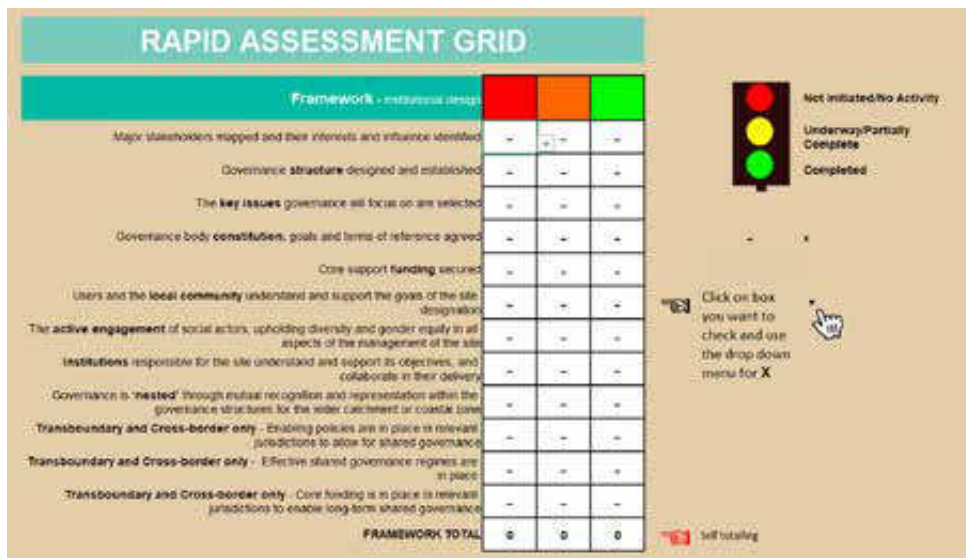


Figure 2.1 - Rapid assessment grid

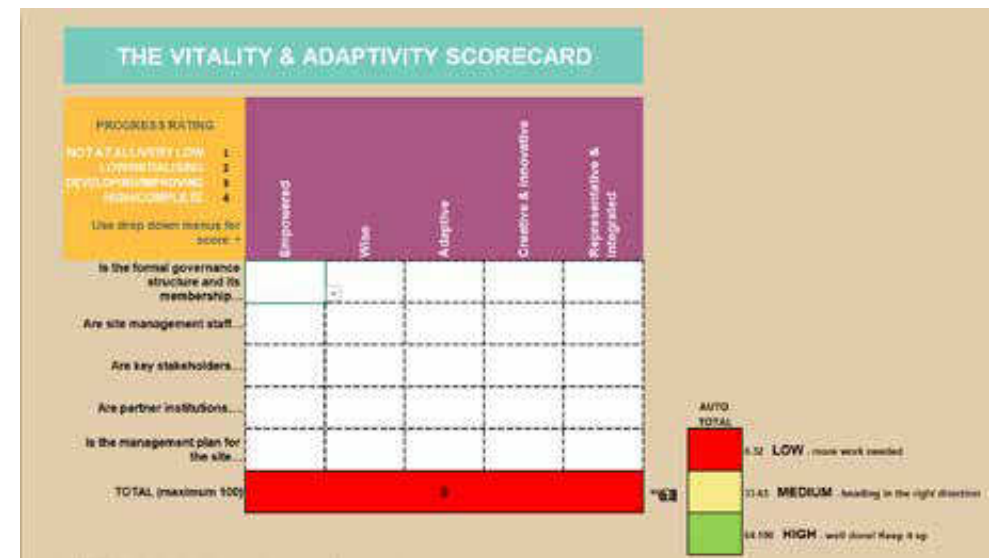


Figure 2.2 - Vitality Scorecard

already existing planning tools to solve environmental issues of specific areas, such in the case of the territory of the Oristano Gulf and its wetlands including 11 municipalities. In line with the Maristanis project for coastal wetlands, the Interreg Tune Up project presents a methodology for a very similar governance model, namely that of Environmental Contracts applied to Marine Protected Areas. Despite the MPAs may have different and particular territorial backgrounds compared to wetlands, in some cases they may share the same management and governance problems, as in the case of the transitional zones between sea and land areas (e.g. areas of marine water the depth of which at low tide does not exceed six meters – de facto considered as coastal wetlands as per the definition of Ramsar Convention on Wetlands). In those terms, the voluntary contract approach is a flexible tool adaptable to different local circumstances and territorial

backgrounds. Based on the experience from the pilot sites, project team members and interested stakeholders had the opportunity to improve their governance frameworks, and provide some ideas to be shared with other Mediterranean coastal wetlands, via the tips and best practice case studies provided. The key lesson from the four sites is that no one-size-fits-all governance structure or process can hope to fit the complexity of Mediterranean cultures, geographies and political systems. However, there is a need for a simple, universally applicable roadmap. Integrating the principles and practice of Integrated Coastal Zone Management (ICZM), Integrated Water Resources Management (IWRM), and the tools offered by the two relevant conventions: the Ramsar Convention on Wetlands and the Barcelona Convention (UNEP/MAP), the Handbook provides just such a

roadmap, one that:

- reports progress;
- builds a shared vision, and plans a way forward;
- tests and reviews existing governance arrangements;
- helps design and test new governance arrangements.

The roadmap is designed to work on long-established sites or newly designated ones, and across international boundaries.

The Handbook and on-line self-assessment tools

Using downloadable tools, the guidance of the Handbook provides:

1. A Rapid Assessment Grid - using a widely recognised traffic light system to measure the user's governance status quo (figure 2.1).
2. A Governance Planner - that allows the user to identify actions, indicators, barriers to progress and priorities.

3. A Vitality Scorecard = uniquely, the Handbook goes beyond a simple tick-box process and meets the challenge of designing excellence into management - excellence defined by the IUCN as vital and adaptive, empowering and inclusive, creative, lively and innovative, and includes that most elusive of qualities – wisdom (Figure 2.2).

### Tips & Tricks

Finally, the Handbook contains a plethora of tips and tricks garnered from experienced managers. Such practical tips to make governance effective are provided based on the real-world governance experience to help users design the way forward for the governance of their wetland, to deliver the elusive vitality of governance, and thereby the aid long-term sustainability of the process itself.

## 2.3 A socio-economic overview of the Mediterranean area

Anna Laura Palazzo

The future socio-economic scenarios relating to the 24 countries bordering the Mediterranean mainly concern two issues. The former addresses the demographic growth of more than 20% of the current 500 million people, especially in the countries of the southern shore; this will lead to increased energy demand and consumption. The latter concerns the geopolitical framework, mainly determined by the interests of the transport giants and terminal companies that compete for market shares in flows between Asia and Europe. The combination of these factors will determine heavy repercussions for the Natural and Social Capital of the Mediterranean area.

### Demographic and energy scenarios

With reference to demographic sustainability, the 24 coastal countries already involved in the signing of the Paris Agreements<sup>4</sup> have developed through the MEDENER network, which gathers their respective national energy authorities, two alternative energy scenarios, one called "business-as-usual" (CS) and the second one "transition volunteer scenario" (TS) which carries out and reinforces the programs and objectives of the official documents of the States. In the bipartition between countries of the North and the South, the former have started transition paths with a significant use of renewable energies. Here, from 2010 to 2016, energy demand fell by 4%, in relation

to the limited demographic growth (+0.5%) and the decrease of in GDP, following the 2008 crisis (-2%). In the same time period, the countries of the South experienced high economic and demographic growth (respectively +6% and +5%), with a corresponding energy demand (+6%) (Figure 2.3). From the first graph emerged that for the Northern countries, the transition scenario envisages a decrease in energy demand (-22%), compatible with forms of energy saving connected to more performing technologies and virtuous practices, while for those of the South, the increase in aggregate demand should be around 55%.

The second graphs shows that, compared to the business-as-usual scenario, in the energy transition scenario, compatible with high levels of energy security, there are estimated: i) a significant reduction in primary energy demand (-30%) and final demand (-23%); ii) an increase in the share of renewable energies, mainly solar and wind, in the region's energy mix, to become the leading source of electricity production (+ 27%); iii) a 38% reduction in greenhouse gas emissions; iv) the abandonment of additional fossil sources for a power of 200 GW. With reference to the transition scenario, energy savings for the industrial sector could reach 25% for the entire Mediterranean area, due to the commitments of the main players in the improvement of quality standards and through the

[4] At the Paris Climate Conference (COP21, 2015), 195 countries adopted the first universal and legally binding agreement on the global climate. The agreement defines a global action plan, limiting global warming to below 2 °C of average temperature increase compared to pre-industrial levels.

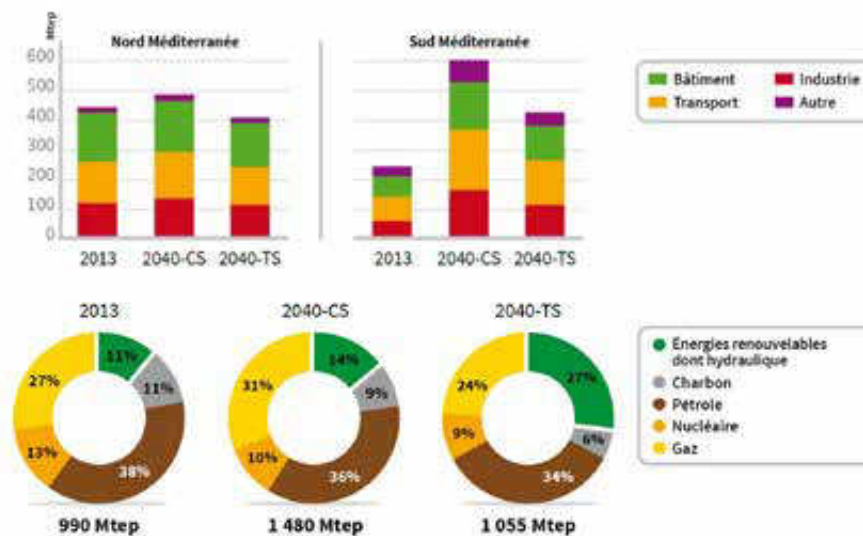


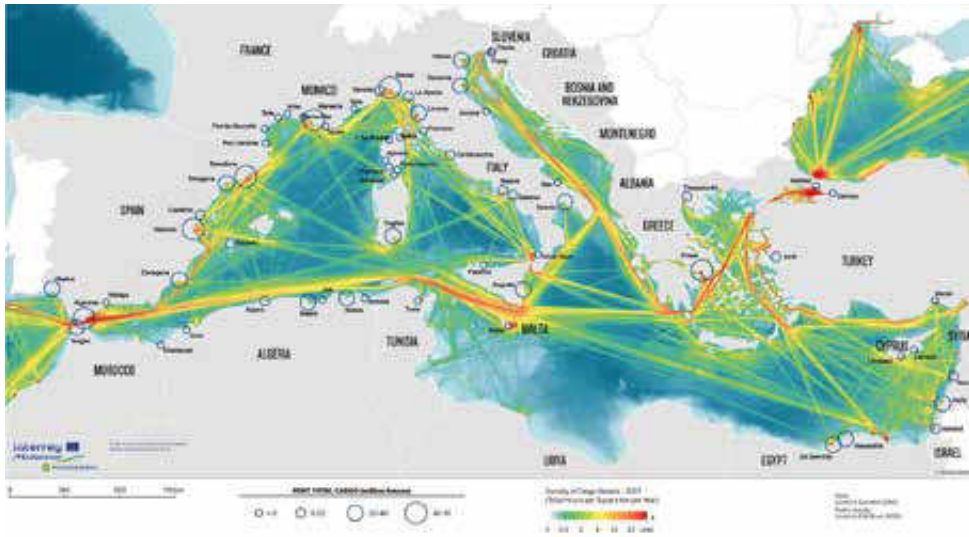
Figure 2.3 - Energetic scenarios in the Mediterranean. 1a. Final energy consumption by sector and by macro-region. 1b. Primary energy consumption in the Mediterranean energy mix. Source: MEDENER/OME, 2015 [www.ademe.fr/sites/default/files/assets/documents/vers\\_engl\\_25\\_oct\\_bat\\_web.pdf](http://www.ademe.fr/sites/default/files/assets/documents/vers_engl_25_oct_bat_web.pdf)

introduction of cleaner and more efficient technologies; in the transport sector, the estimated energy saving of 21% would refer to various factors, such as the use of more ecological vehicles, and the implementation of integrated models for organization and management of the urban areas. The electricity sector represents a priority in terms of energy saving, being able to reduce the final consumption by over 30%.

### The Mediterranean of flows

With reference to the geo-political projections, the Mediterranean space appears as a fragile hinge of maritime traffic between the Atlantic, historic trading area, and the emerging Indo-Pacific area, by non-European decision-making, especially by the so-called BRICS countries (Brazil, Russia, India, China and South Africa). In recent decades there has been an expansion of the major Mediterranean ports with an average annual increase of 21% in the number of containers handled (Figure 2.4). Such is the case of

the agreements among Russia and China for the primacy of the logistic network through integrated platforms of regional interest and the exclusive management of Special Economic Zones (SEZs). These areas benefit from bureaucratic and tax regimes in the countries where they are located, due to the reduction of customs duties, the simplification of administrative procedures, easier access and the reduction of costs of some utilities, the relaxation of monetary exchange regulations. The lead actors of such initiatives are seldom the coastal countries or the European Union: among the BRICS countries, China, Russia and South Africa hold together the ambitious organization and management of a service platform, including banking and finance, that favors access to Central Africa from the countries of the southern shore of the Mediterranean. Among the general and thematic institutional networks of the Mediterranean governance, the Union



for the Mediterranean (UfM), aiming at stability and integration throughout the region, is also set up for negotiating with global stakeholders. The UfM is a forum for discussion and analysis of regional strategic issues based on the principles of co-ownership, co-decision and shared responsibility between the two shores, with action plans focused on two main factors: (i) favoring human development and promoting sustainable development; (ii) identifying and assisting programs of regional interest in a multi-level governance, following unanimous decisions by the subscribing countries<sup>5</sup>.

**Conclusions**

The Mediterranean leadership is currently in the hands of individual coastal countries and city ports provided with important logistical connections, directly negotiating huge advantages with their counterparts. However, the eclipse of institutional networks of a regional governance able to effect adaptation, learning

and reorganization processes in Mediterranean societies, exposes the Natural and Social Capital to high erosion risk. A common agenda should include the participation of the EU and the European countries as well in programs such as restructuring of ports and enhancing logistics, arranging the SEZs, strengthening the participation of 'European macro-regions' in extra-European projects. These federative issues could also include the monitoring and assessment of the commitments underway in the Mediterranean area in implementing the 2030 Agenda. As stated by influential studies, a shared Mediterranean-based political and diplomatic action would lead the United Nations to formally recognize the Mediterranean basin as an area with a precise identity, homogeneous and interconnected albeit complex and fragmented: such acknowledgement would certainly help launch more stable cooperation forms.

Figure 2.4 - Annual density of cargo vessels crossing and/or passing MPAs and other conservation areas of the Mediterranean. Source: WWF

[5] The Union for the Mediterranean (UfM) is an intergovernmental organisation bringing together all EU countries and 15 countries of the Southern and Eastern Mediterranean. It was founded in 2008 at the Paris Summit for the Mediterranean to strengthen the Euro-Mediterranean Partnership. The parliamentary assembly is divided into five permanent commissions: politics, security and human rights; economic, financial, social affairs and education; quality of life, exchanges between civil society and culture; women's rights; energy, environment and water.

On the right: Albufera de Valencia sealife. Credit: samaruedigital.com



**3.**  
**Environmental Contract**  
**methodology for MPA governance**





On the left: Amvrakikos Gulf fauna, Credit: Amvrakikos Gulf-Lefkada Management Agency

### 3.1 The Environmental Contract tool

*Lisa Ernoul*

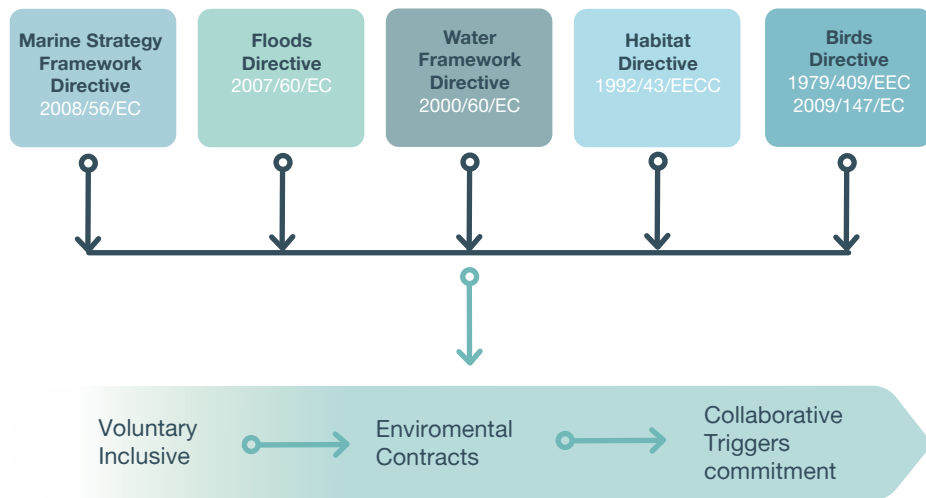
There are important pressures and threats on coastal and marine ecosystems from human activities and the competing demands for the resources in these areas are expected to rise. Inadequate management and practices include environmental and social costs that are often not factored into decision-making processes (OECD, 2017). This weakens the resilience of the ecosystems and the services that they provide. MPAs are one of the policy instruments available to help ensure the conservation and sustainable use of these ecosystems. There has been significant progress for the governance of MPA over the last decade, however, according to the Organization for Economic Cooperation and Development, significant efforts are still needed to ensure their sustainability in the future (OECD, 2017).

The Marine Strategy Framework Directive and other European directives including the Water Framework Directive and several Daughter Directives (Habitat Directive, Floods Directive, etc.) require European countries to foster an integrated approach for managing MPAs and their surrounding wetlands through collaborative governance processes, combining multi-objective, multi-level and multi-stakeholder decision-making. In particular, a participative approach to decision making is promoted as a prerequisite for defining integrated, sustainable

and viable strategies (Jager et al., 2016). Recent research has shown that there are gaps in the designation and management of MPAs, highlighting specifically the need for greater stakeholder participation and timely monitoring and evaluation (Álvarez-Fernández et al., 2020).

Voluntary Environmental Contracts are tools that can be used to meet these objectives. They are negotiated agreements between the parties that take shape through inclusive and deliberative decision-making processes. The Contracts are centred around a shared vision of the territory that takes into account an intersectoral approach. Once the stakeholders have developed a shared vision for the future of the site, they then identify the activities, responsibilities and funding necessary to move toward this vision. With the Contract, the local stakeholders can voluntarily commit to implementing different activities by directly realizing the actions or contributing through different support systems. Environmental Contracts have been developed and implemented in some European countries, setting the ground for voluntary-based commitments undertaken by various public and private entities for the sustainable management of wetland systems (Figure 3.1) (Polajnar Horvat & Smrekar, 2021). Environmental Contracts originated in France in the early eighties to control pollution and flooding, manage hydraulic structures,





Additional resource

### THE ENVIRONMENTAL CONTRACT: FROM TOOL TO PROCESS\*

The Environmental Contract has the proper characters of a governance model more than of a programmatic tool. Referencing this setting, it is possible to highlight that it functions as a process aimed at establishing a common working method among stakeholders to make decisions and not only to share decisions. In this sense it works as an organizational model to build pioneering partnerships capable of lasting over time. Therefore, it is possible to identify three key characters that endorse the Environmental Contract as a process: (i) the first is *strategic* and concerns the construction, through the shared scenarios, of an integrated vision and a common framework for territorial policies (see Paragraph 3.4.1); (ii) the second is *organizational* and takes place when a system of rules is shared for the governance of the Environmental Contract target area and is clearly established within the formal Agreement's subscription; (iii) the third is the *operational* and concerns the need to define a coherent Action Plan. The governance chain described above must be adaptive and open to any possible update according to the external conditions that eventually determine or change the taken decisions' implementation feasibility. This does not reflect in a weakening of the taken commitments, but it means giving the Environmental Contract the ability to overcome unforeseen events and changes that are not dependent on the decisions taken but can affect them.

*Adapted from: MATTM-Sogesid, 2015*

and raise stakeholder awareness. Some of the activities in the Contracts are subsidized by the state, inciting local stakeholder commitment to the activities and management of the water resources (Brun, 2014). Today Environmental Contracts are well established in France, Belgium and Italy, with some isolated experiences in other European Countries, through the Interreg Med project WETNET. In the framework of the Interreg Med project TUNE UP, the Environmental Contract tool was tested for the first time in MPAs in Albania, France, Greece, Italy, Montenegro, Slovenia and Spain. The pilot sites provided an opportunity to test the tool to identify the applicability of the process in the European Mediterranean region and make the necessary adjustments to best fit the legal framework and specific contexts for each MPA. The voluntary

nature of the Contract sets the ground for concerted efforts between policy makers, stakeholders and communities. The final format for the MPA Contracts should remain flexible to accommodate the different national and local contexts; however, the Contracts are technical and financial agreements between stakeholders for an integrated, concerted and sustainable management at a coherent hydrographic scale (Gusmaroli et al., 2020). Engaging in participative governance schemes such as MPA Contracts improves conservation, restoration, mitigation and compensation, which are significant factors considering the increasing impacts of climate change (Vélez et al., 2018); however, these tools are only effective if they are implemented, monitored and evaluated appropriately (Moore & Rutherford, 2019).

Figure 3.1 - Framework and directives influencing the Environmental Contract tool and its voluntary and negotiated character. Source: elaboration adapted from MATTM-Sogesid, 2015

## 3.2 The Environmental Contract process: inputs and outputs

Serena Muccitelli

This chapter aims at outlining a general methodology for implementing Environmental Contracts suitable for being transferred beyond TUNE UP partnership, and with a specific focus to MPAs<sup>1</sup>. Given that the objective of the Environmental Contracts is to promote a comprehensive and integrated vision that openly consider the various objectives and find solutions to make them coexist, assuming environmental sustainability simultaneously as a priority objective and an implementation strategy (MATTM-Sogesid, 2015), a few principles can be listed to support the identification of the challenges that an Environmental Contract should embed. For lasting improvements in the governance, local development, and socio-economical condition of the area subject to change, an Environmental Contract should respect the following.

- Be based on a participative, inclusive governance process engaging all stakeholders with a legitimate interest in the protection and sustainable development of the target area, aiming at ensuring a multi-actor and bottom-up inputs to the process, able to last over time and oriented to the empowerment of the actors involved.
- Be based upon a structured and integrated analysis, shared and updatable, on the state of the target area (strengths/weaknesses from the environmental and socio-economic point of view) and the

risks/opportunities connected to it, as well as the framework of the programmatic tools (existing plans, programs, projects)

- Be aimed at the simultaneous adaptation of the environmental condition of the area, including its governance, physical and social structures and economic base.
- Put in place a comprehensive and integrated strategy that deals with the resolution of problems in a balanced, ordered and positive manner.
- Ensure that the strategy and the resulting programmes of implementation are developed in accord with the aims of sustainable development.
- Set a clear set of measures and actions which should, wherever possible, be quantified.
- Make the best possible use of natural, economic, cultural, human and other resources.
- Measure the progress of the strategy towards the achievement of specific objectives and monitor the changing nature and influence of the internal and external forces which act upon the target area.
- Accept the likelihood that initial programmes of implementation will need to be revised in line with such changes as they occur.
- Recognise that the various features/conditions that are going to influence and shape the Contract's strategy are likely to progress at

[1] Developed as an adaptation and improvement of WETNET's common methodology (Gusmaroli et al., 2020), in some of the chapter draws on the methodology described by the Italian Ministry of Environment's research for Italian River Contracts implementation and definition (MATTM-Sogesid, 2015) as a common base, and in some parts to the mentioned WETNET methodology, aimed at guiding the project partners along the process of testing the tool in pilot areas.

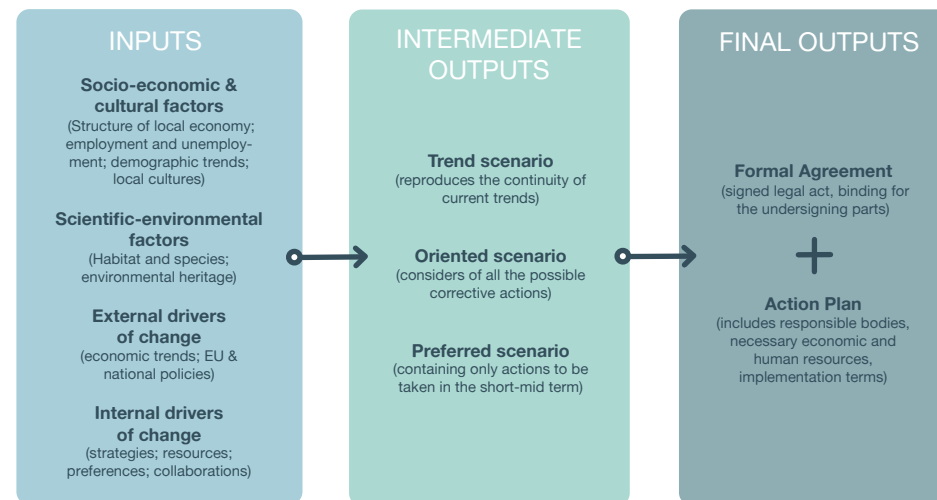


Figure 3.2 - Input-output process diagram. Source: author's elaboration adapted from Roberts, P. (2008).

different speeds (possibly requiring to redirect resources or to provide additional ones in order to maintain a broad balance between the aims encompassed in the strategy and to allow for the achievement of all of the objectives).

The following diagram (Figure 3.2) allows to visualize the interactions between these factors, illustrating the Environmental Contract as an input-output process. The diagram also indicates the variety of themes and topics involved, the interrelated outputs and the flows of information and forces simultaneously at work. The following elements constitutes the inputs informing the process, to be provided within the Preparatory stage of the process through the development of the Context analysis and of the Participatory process (See paragraph 3.3).

- *Socio-economic and cultural factors* (e.g. Structure of local economy; employment and

unemployment; demographic trends, local cultures).

- *Scientific-environmental factors* (e.g. habitat and species; environmental heritage).
  - *External drivers of change* (e.g. macro trends in economy; EU and national policies; regional and local regulations; strategies in place in similar areas).
  - *Internal drivers of change* (e.g. existing strategies; availability of resources; preferences of residents; status of collaborations among stakeholders and institutions).
- The Development stage* of the process is the phase when the intermediate outputs as well as the final outputs are developed and released. The development stage opens up the implementation phase, once the final formal Agreement is subscribed by key stakeholders and the Action Plan is released (see paragraph 3.4). Starting from the previously built knowledge base and understanding

of the target area dynamics and of the different actors' specific needs, three development scenarios are part of the decision-making process and need to be shaped as a substantial milestone towards the Environmental Contract successful subscription. Indeed, they are jointly defined and assessed by the stakeholders that finally identify, with the preferred scenario, the integrated and unitary vision for the Contract's territorial strategy.

The final output of the Environmental Contract is an administrative agreement with legal force (hereafter the formal Agreement). With its subscription the parties formally commit to carry out the actions shared in the process; it is binding for the undersigning parts and must be set according to national regulations for public-private partnership.

The Action Plan constitute the second main output of the process (to be attached to the formal Agreement) and is developed according to the objectives emerged during the process, establishing the priority actions, the roles, and the methods for implementing the strategy, as well as the procedures to monitor its actual implementation.

The above-mentioned principles, together with the input-output process just explained, put substance behind the general implementation and action framework of Environmental Contracts. As a first step and beyond these principles the need to recognise and accept the uniqueness of the target area is crucial, together with the necessity to calibrate the actions to the contextual circumstances within which the process operates (Roberts, 2008).

## 3.3 Preparatory stage

### 3.3.1 Definition of the territorial area to be considered by the Contract

*Romina D'Ascanio, Serena Muccitelli*

One of the main issues arising since the launch of Environmental Contract's processes concerns the area to be considered by the Contract, as target area (hereafter perimeter of the Contract).

Environmental Contracts are not new plans but are tools that should bring the existing plans together, in order to enhance their effectiveness. Unfortunately, this step is often complex, since the Contract must consider different territorial, sectoral and socio-economical dimensions that are intertwined and cannot, by themselves, embed and exhaust all the issues at stake. The sectoral nature of the planning levels (General Plans, Water Management Plans, Landscape Plans, ...) confirms this complexity since each tool corresponds to different perimeters and thematic areas.

One helpful direction comes from the Italian and French legislation, which regulate Environmental Contracts, more specifically River Contracts, and advise to take into consideration the perimeter of the river basin or sub-basin, as units allowing to overcome the fragmentation of administrative boundaries (Bastiani, 2011).

Furthermore, the basins and sub-basins make the overall approach to planning innovative and convergent, integrating natural and cultural capital, thus responding to one of the main pillars of Environmental Contracts.

Nevertheless, it has to be mentioned

that, in the hypothesis of considering as target area of the Contract a specific sub-basin, some problems can arise when facing effects produced upstream by dynamics that concern much wider areas and diversified actors (e.g. effects on water flows in the downstream sections or in the mouth of rivers which have several interruptions and barriers along its course).

Finally, it is important to consider that, since human, cultural and socio-economic dynamics for local development are pivotal matters within the Contracts, the target areas need to expand and shrink into stronger or weaker social or economic network systems. For this reason, it is important to adopt place-based solutions considering the different stakeholders and the cause-effect relationships at an environmental, economic, and social level.

Based on these initial considerations it is possible to conclude that the perimeter of the Contract must consider a functional area that overcomes administrative borders and can include all the related issues (natural, cultural, local development...) and not only the environmental ones. In order to do so, an additional area of influence, understood as a regional/territorial relational area, could be defined in order to help integrating issues and stakeholders which influence or are influenced by the dynamics of the target area.

Drawing on the TUNE UP experience in the definition of the of the MPA Contract perimeters, in some cases defined in conjunction with the area of influence, it is possible to highlight a set of representative records:

1. *Perimeter coinciding with the target area administrative boundary*: the perimeter of the MPA Contract coincides with the limits of the regulated MPA, in order to circumscribe the criticalities and enhance the possibilities of sea protection.
2. *Influence area selecting specific areas subject to environmental protection measures*: the perimeter of the MPA Contract is extended to the adjoining wider Natura 2000 site, in order to respect the environmental and ecological continuity.
3. *Influence area considering a wider protected area system*: when the MPA is part of a wider protected areas system, the influence area of the MPA Contract considers the whole system of the wetland or national park, in order to hold together all the positive and negative influences and side effects; moreover, when those protected areas share the same managing authority, the MPA Contract can represent the starting point of a more extensive Protected Area Contract.
4. *Influence area selecting municipal/ intermunicipal administrative boundaries*: the perimeter of the MPA Contract considers the inter-municipal scale of the Municipalities concerned by the MPA as its reference unit, in order to prioritize the socio-economic influence.
5. *Perimeter coinciding with an island and the surrounding MPA*: when the MPA falls within an island with protected mainland, the protection on land and sea is considered into the perimeter of the Contract, recognizing the two ecosystems as integrated and in connection with local economies. The case of the islands, based on their proximity or distance from the coasts, allows to undertake a Protected Areas Contract, an Islands Contracts or even a Coast Contract.

### 3.3.2 Governance structure and first commitment<sup>2</sup>

The first pivotal task to accomplish when starting an Environmental Contract process is the identification of *the coordinator/promotor*, who has the task to coordinate the overall implementation of the process and promote it to competent public administrations and local stakeholders. For this reason, it is important that it is a local empowered and committed body (can be public or private) widely recognized as a credit-worthy figure. In

this way its voice will be perceived as authoritative, and its communication effort will be effective. It is essential to not underestimate the profile of the Contract coordinator/promotor. Besides this figure, the Environmental Contract holds a governance structure mainly composed by three bodies with different roles and tasks. The *Forum/Assembly* is the organ of public participation extended to the entire community of the target area, in

[2] Main source for this paragraph is the Wetland Contract Toolkit of Interreg Italy-Croatia CREW Project (2020). Adapted by D'Ascanio, R. Muccitelli S., Pozzi, C.

which all public bodies, private subjects and local associations can participate. It has the task of contributing to the construction of knowledge, the identification of problems, the definition of possible solutions and the approval of choices. It can meet in plenary session or in the form of thematic and/or territorial tables according to the specific needs and phases of the process.

The *Management Board* is the institutional body composed of public authorities adhering to the Contract. This body undertakes to direct, instruct and validate the work of the MPA Assembly and the Technical Secretariat. It has political-decision-making functions as well as the task to promote the initiative in the target area by identifying and informing interested stakeholders, guaranteeing the official communication among the actors of the process, promoting, and organizing the Contract process' activities. It carries out its activities through plenary meetings and it is supported by the Technical Secretariat.

The *Technical Secretariat* is the operative body of the Contract governance structure, with the task to support the Management Board and the MPA Assembly. It carries out all the

technical steps for the construction of the decision-making framework, which includes the collection of data, information, assessments, the development of technical analysis, plans and projects, the adoption of diagnostic and monitoring tools. It has the task of designing the participation strategy and of conducting the process, as well as the communication activities. It should be composed of technical experts from different backgrounds, with proven experience in matters of importance for the specific context of reference. These experts, together with competent stakeholders, could set up thematic working groups investigating specific issues for pursuing Contract's goals. By establishing a proper governance structure for the Contract coordination, the involved stakeholders declare the common objectives to be focused on. If applicable or necessary (as in the Italian context), this step can be officially formalized by signing a *Memorandum of Understanding* (MoU). The document contains the general reasons and objectives of the Contract, the specific critical issues covered by the Environmental Contract and the working methodology shared between the actors taking part in the process.

Checklist

#### BASIC CONTENTS OF A MEMORANDUM OF UNDERSTANDING

- Values and criticalities of the area.
- Regulatory framework.
- Main general objectives to be pursued.
- Activities and steps to be implemented.
- Governance structure: promoters, members and roles.
- Timing and duration.
- Roles and responsibilities of the signatories.



### 3.3.3 Inputs: Context analysis<sup>3</sup>

One of the first stages of the process consists in drafting the *Context analysis*, to be addressed in a comprehensive document. The analysis explores the target area's features under the environmental, social, cultural, and economic point of views, and supports the identification of the perimeter of the Contract as well as the influence area (see 3.1.1.). Specifically, it investigates the *Regulatory framework* and the territorial and landscape planning and policies; it frames the main environmental and socio-economic features of the target area and collects the existing knowledge about the criticalities and values (*Target area description*); it includes the *Stakeholder analysis* that identifies and lists the actors to be involved among civil society and key groups in the participative process. The *Regulatory framework* aims at analysing: (i) the legal framework related to Environmental Contracts; (ii) the legal framework related to the target area and focused issues (environment and protection schemes); (iii) different level planning tools framework related to the target area.

As the Environmental Contract tool is not homogeneously spread across European Countries, the first necessary step consists in conducting an accurate analysis to understand whether the tool is regulated at national and regional level. If not, since at EU level the Environmental Contract tool can be listed among the “supplementary measures with the aim of achieving the environmental objectives” established by the Water Framework Directive,

as a “negotiated environmental agreement” (ANNEX VI PART B), it is important to understand whether the Negotiated Programme is regulated and if it is appropriate to formalize the Environmental Contract.

The second step is to describe the national regulatory framework for the target area management and governance. In the case of MPAs the analysis will refer to the national regulatory framework for the protection, management and governance of MPAs, management plans of MPAs foreseen at national level and specifying which international/European/national protection levels and rules are applied or applicable for the target area.

The third step of the analysis is to deepen the specific objectives and the scopes already foreseen by the sectoral plans, programs and strategies for the management of the target areas (e.g. Protected Area Management Plan, Natura 2000 management plan, Landscape Plan, ICZM strategy, plan or programme, ...).

The Regulatory framework aims at producing a synthetic document reporting all policies, strategies, laws, plans, programmes and projects already in action or related to the target area, considering also to extend this analysis to the influence area in order to identify where and how Environmental Contracts can be used within the local regulations and plans. The Target area description collects the available information and diagnosis related to environmental, cultural, socio-economic aspects. It aims to better identify the values and

[3] Main source for this paragraph is the Wetland Contract Methodology of Interreg MED WETNET Project “Towards a common methodology for implementing wetland contracts – principles, guidelines and best practices” (Gusmaroli et al., 2020). Adapted by D’Ascanio, R. Muccitelli S., Pozzi, C.

criticalities of the target area to focus the objectives to be developed in the Contract implementation stage according to the local challenges and priorities.

The *target area* description can include:

- socio-demographic and territorial overview;
  - description of the zoning of the protected area (if any) and its main features;
  - habitat and species abacus;
  - main threats and impacts for the biodiversity;
  - heritage values (Environmental heritage, Archaeological heritage, Historical heritage, Architectonical heritage, Ethnological heritage, Landscape heritage);
  - main threats and impacts for the heritage and landscape.
- Furthermore, a mapping of local initiatives can be added in order to identify the main drivers to possibly frame potential strategies for sustainable local development and to promote the voluntary governance process of the Environmental Contract.

The *Stakeholder analysis* identifies all the key stakeholders to be involved in the Environmental Contract participatory process (those who will participate in the Territorial Labs and those who will eventually subscribe the Contract) by framing them in different categories related to: (i) the stakeholders' territorial level or typology of action (National, Regional, Local, civil society, key groups); (ii) their engagement degree (effective or potential); (iii) their priority area of interest.

Stakeholder mapping draws from multiple perspectives to determine

a list of key stakeholders across the entire stakeholder spectrum. It can be developed in three main phases:

**Identifying.** Listing relevant groups, organizations, and people, and classifying them in 3 macro categories: (i) public institutions; (ii) structured organizations and interest groups (chamber of commerce, trade unions, environmental groups on a national or regional non-governmental organizations, professional associations, resident associations, groups of fishermen, farmers, canoeists, associations and consortiums category local and industry consortia); (iii) unstructured local actors (landowners, individual residents, people who may be interested by the implementation of some actions resulting from the process, and opinion leaders, usually belong to the local level).

**Analysing.** Understanding stakeholders' perspectives and interests by observing the following elements: (i) *contribution* - does the stakeholder have formal competencies, information, counsel, or expertise on the issue that could be helpful to the process?; (ii) *legitimacy* - how legitimate is the stakeholder's claim for engagement?; (iii) *willingness to engage* - how willing is the stakeholder to engage?; (iv) *influence* - how much influence does the stakeholder have? Whom does he influence (e.g., other companies, NGOs, consumers, investors, etc.); (v) *necessity of involvement* - is this someone who could derail or delegitimize the process if they were not included in the engagement?

**Mapping and Prioritizing.** Understanding the stakeholder commitment (informed, consulted,

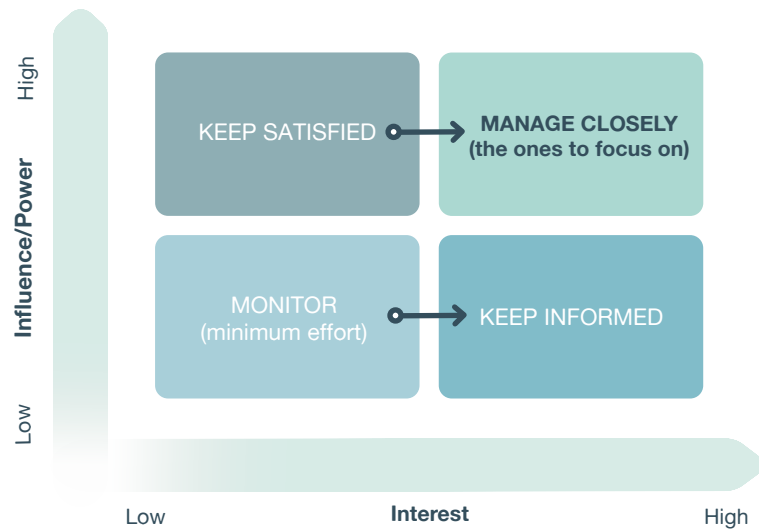


Figure 3.3 - Stakeholders' engagement process: matrix "power and interest". Source: Johnson and Scholes, 1999

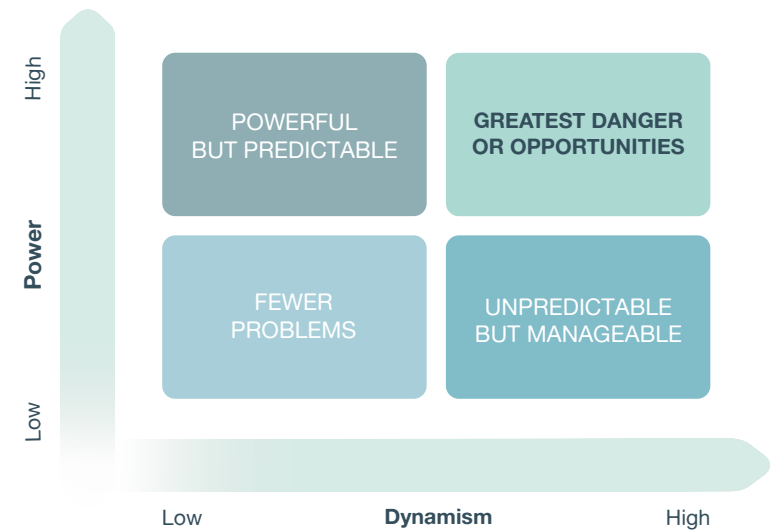


Figure 3.5 - Stakeholders' engagement process: matrix "power and dynamism". Source: Gardner et al (1986)

involved), considering his level of involvement, power and availability in the different phases of the process. Matrix or grids can help classifying stakeholders in relation to: power and influence; influence and impact; power and legitimacy; power and interest – to indicate the nature of the relationship which should be adopted with each group; power and dynamism – to indicate where political effort should be made before instigating change. More specifically in Figure 3.3 matrix “power and interest” the position on the grid reveals the actions to be taken with the stakeholders.

- High power, interested people (key player > manage closely): this group of people must be fully engaged, their co-operation is key for the process, greatest effort needs to be made to satisfy them.
- High power, less interested people: this people are powerful, but their level of interest is low. They are generally expected to be passive,

but may move into group of key players on an issue of particular interest.

- Low power, interested people: this group should be kept informed, as they could be able to influence more powerful stakeholders.
- Low power, less interested people: they need only minimum effort and monitoring.

Figure 3.4, matrix “power and dynamism” shows the power a stakeholder has in relation to how dynamic the stakeholder is in changing the position/opinion he/she holds. When dynamism is low the stakeholder’s position/attitude is predictable and their expectations can often be met in a relatively easy way. Once the mapping is completed, it is possible to define a shared strategy with the aim of increasing stakeholders’ consent and support and of minimizing their negative impacts. It is therefore important to understand the stakeholders’ needs and to

communicate frequently and regularly with them in order to ensure that they understand the progress and needs of the project, besides feeling engaged. The list needs to be constantly updated during the process in order to ensure a coherent involvement of key stakeholders. It can be drafted by using several online and offline tools exploiting social and professional networks of the Environmental Contract coordinator/promoter with the support of the Secretariat, such as:

- brainstorming process which enables the project team to collect a list of people/groups/institutions;

- studying documents, initiatives, and expertise related to wetlands, protected areas, vulnerable environments;
- conversations with individuals and representatives of various organizations;
- browsing websites;
- filed works and interviews.
- A careful selection of the stakeholders to be involved is the fundamental basis for further steps of the process, whose results, quality and success depend very much on the knowledge and participation of them.

## CONTEXT ANALYSIS HIGHLIGHTS

- *The Context analysis* should be a synthetic and clear document to be shared with local stakeholders.
- *The Regulatory framework* collects all the existing plans, strategies, laws, rules regarding the target area management at national and local level.
- *The Target Area description* collect all the existing knowledge (environmental, economic, cultural aspects) about the target area.
- *The Stakeholders analysis* helps to create a list with all the stakeholders engaged in the target area and to select those to be involved (most relevant) and those to be informed.
- Make sure to map both public and private key stakeholders. Carefully identify the conflicts among the selected stakeholders and be inclusive.

## Checklist

### 3.3.4 Participation strategy

Katarina Polajnar Horvat, Aleš Smrekar

The participatory management of marine areas in the Mediterranean region, the involvement of actors from different sectors, and the implementation of participatory processes are severely underestimated, which has led to inharmonious and uncoordinated MPAs development and protection to poor involvement of relevant stakeholders with the on-going processes. Being aware of insufficient inclusion of different stakeholders within the wetland management processes the participatory strategy is needed for the successful management of MPAs.

In recent years the stakeholder participatory processes have become the new ways of managing wetlands and their hinterlands, and to forestall conflicts among different groups of stakeholders, to ensure more integrated and sustainable outcomes.

A stakeholder participation strategy has become a way to form “decision-making body” (voluntary or statutory) comprising different stakeholders who perceive the same resource management problems, realise their independence for solving it, and come together to agree on action strategies for solving the problem. It is like a roundtable, where different actors are gathered with very different perspectives. They have so called stakeholder dialogue, which is not just conversation, but interactive approach to getting things done (Warner, 2005). However, this does not mean just talking about management problems, but an active involvement and participation of different stakeholders in the design, implementation, evaluation, and some other aspects of a process (Environmental Contract process in this case) (Brown and

Wyckoff-Baird, 1992).

The most beneficial reasons for undertaking stakeholder engagement are to assure (Yee, 2010):

- participatory democracy (community empowerment and providing the opportunity to develop knowledge for making informed choices);
- transparency in decision-making process;
- community empowerment and support;
- reduction of conflicts over decisions between decision-makers and public stakeholders, and between the private and public stakeholders;
- gaining access to additional information or resources.

With the stakeholder participation strategy, the traditional and unidirectional top-down approach is surpassed, and the multi-actor and bottom-up model of management is assured. Like that, local stakeholders or disadvantaged group enter the points of departure of all development issues and negotiations and, consequently, they are equal in relation to other stakeholders (Arnkil and Spanga, 2003). Once people see the sense of involving multiple voices, it is felt, they will be broadly accepted as the way forward in dealing with complexity management of marine areas. Furthermore, shaping stakeholder participation strategy blurs the border between the public and private sectors, which is expressed in a new form of decision-making, which is characterized by the cooperation and the division of tasks and responsibilities among them. The relations between stakeholders become no longer hierarchical, but equivalent and based on trust, reputation, customs and habits, reciprocity, reliability, and

openness to learning (Schobben, 2000).

Active public participation is understood as involving different stakeholders, giving them the possibility not just to listen and watch, but giving them the power to interact with the processes, accepting the possibility that they could be changed by them. Nowadays the use of a participatory approach in the managing of spaces and in this connection in decision making processes is increasing more and more, meaning the involvement of the stakeholders who are interested by the decisions or have useful knowledge to share (Bole and Bigaran, 2013). Communication, cooperation, and consensus are the essential components of the participation process (Gei endörfer et al., 2003). With successful management of participatory process many goals can be achieved: smoothing out differences between perspectives, shaping solutions acceptable to all social groups, preventing unproductive competition, ensuring participation of local actors, and strengthening their creativity and awareness. It enables the expression of various interests and makes it possible to take them into account during decision-making and action (Zumaglini et al., 2008). Besides, it includes variety of knowledge that is necessary to effectively carry out all sorts of activities in a specific local environment, and by means of a reciprocal learning process, it builds upon it and enriches it. The participatory approach means putting together different points of view as a means to produce innovation. It has proved to be effective, because it tends to create links between actors that usually do not communicate,

[4] [www.accountability.org/images/content/3/6/362/AA1000SESES%202010%20PRINT.PDF](http://www.accountability.org/images/content/3/6/362/AA1000SESES%202010%20PRINT.PDF)

giving them possibility for familiarizing themselves with different perspectives and, in this way, opening a space for discovering new ways of seeing and solving problems (Bole and Bigaran, 2013).

The participatory approach can be used for obtaining:

- community development;
- research, teaching and training;
- knowledge creation;
- conflict resolution;
- knowledge sharing between different stakeholders;
- communication improvement;
- social development;
- rule sharing;
- quality improvement.

It is all mainly about sharing information, perceptions, needs,

visions and in a broader sense, implicit and explicit knowledge, thus converting them all into process assets. The actors that take part in the implementation phase must get to feel they are part of the process: in order to achieve this, nothing proves more effective than making it clear that the bottom-up approach is being fully followed (Alfarè and Nared, 2014). In order to get necessary information and answer to the different needs and achieve interactive approaches in stakeholder meetings, various participatory techniques can be used and implemented. The most used are brainstorming, focus groups and world cafe, which focuses on the process and the relationships and aiming at building a creative group of stakeholders.

## GUIDELINES FOR STAKEHOLDER MEETINGS

Planning and holding stakeholder participation strategy is an important part of management and implementation of the marine area's goals. One of the main tasks when setting up the participation strategy are stakeholder meetings. They can be held on-site or at a neutral location depending on partners' pilot action implementation and each partner's needs. When planning a meeting, we should consider the amount of time in which the meeting should be held, as well as an appropriate timeline for planning the event from start to end. You should invite stakeholders to participate in meetings well in advance and provide all necessary contextual information, including scope and objectives.<sup>4</sup> The following steps to better planning of meetings (FRP Guide to Stakeholder Engagement 2007).

### *Meeting preparation and invitations:*

- determine objective of meeting and desired outcome;
- utilize assets within the community;
- identify potential participants and organize invitations;
- send a personal e-mail to the potential stakeholders and other key players with the purpose and the date of the meeting; if needed call them personally;
- set meeting date and draft Agenda with stakeholders' input (if

### *Additional resource*

necessary);

- follow up with invitees and track responses, assure Attendance by Key Stakeholders;
- prepare materials for use prior to and during the meeting;
- determine expectations of participants and facility representatives.

### *Determine roles for conducting the meeting:*

- designate a person to facilitate the meeting;
- determine which facility employee(s) should participate in the meeting;
- designate a person to take notes and/or record stakeholders' input, which may be useful for determining which stakeholder feedback to include in your report.

### *Hold a Stakeholder meeting*

Once the meeting is held ensure appropriate roles and expectations are agreed upon, and that stakeholders value the process.

### *Welcome stakeholder participants:*

- set up a sign-in sheet;
- review expectations of participants and facility representatives, including engagement process and roles during the meeting;
- consider an icebreaker to orient new and old stakeholders to the group process.

### *Review the objectives for the meeting:*

- Review the impacts and planned activities or other content-related information;
- consider giving an overview of key information (including future goals) in a brief presentation;
- let stakeholders know the importance of this meeting;
- allot time for question and answers.

### *Meeting wrap-up:*

- determine if your meeting has achieved its desired outcome;
- discuss how the project manager plans to review and respond to feedback received;
- review next steps, including reporting process and timeline;
- invite additional feedback and engagement going forward;
- thank participants for their time.

### *Evaluation of the meeting*

After the meeting the evaluation of the task should be done, and report prepared. The organiser of the meeting should answer the following questions, which should be incorporate in the report as well:

- Who participated in the stakeholder meeting?
- What was the main aim of the meeting?
- How did you set up the meeting? What did you present and what were the main topics of the meeting?
- Which participatory technics did you use, how did you encourage the participant to take an active part in discussions and did you have any



problems with the used technics? Did you use other form of group discussion and to encourage inter-personal learning and discussion?

- Which topics/problems/ solutions were most discussed/most popular? Shortly present them.
- Which aspects were least discussed/least popular? Shortly discuss why.
- Did you have any problems when planning and performing the meeting?
- What challenges and resistances did you come across when planning and performing the meeting? How did you overcome them (or not)?
- What are the learning points you gained from planning and performing the meeting?
- What feedback did you get from participants? (prepare an evaluation paper for the participants).
- What was specific for your context, which future meeting need to take into account?
- What were the main conclusions you manage to get from the participants?

## 3.4 Development stage

### 3.4.1 Intermediate outputs: Scenarios

*Andalusian Federation of Municipalities and Provinces*

The Environmental Contract process foresees, as a main step of the development stage, the creation of three different scenarios, to be conceived as intermediate outputs towards the elaboration of the Action Plan, where actions and projects are defined.

Scenario planning is a technique based on the integration of the studies and scientific diagnosis realized during the first stage of the process with the results of the participatory process. It aims at identifying a shared mid-term strategy (last result of three scenarios) that combines the general planning objectives with the local development policies, needs, opportunities and actual implementation possibilities (Gusmaroli et al., 2020). It is normally developed through desk activities carried out by the technical secretariat and by participative sessions. The definition of different scenarios is necessary so that problems and criticalities related to ongoing trends are identified. Following this methodology, corrective and balancing guidelines and measures can be suggested, structured and further developed to create the initial picture of the Action Plan. More specifically, through the creation of scenarios it is possible to depict the future of the target area by implementing or not implementing certain guidelines and measures. These scenarios help to identify the most suitable project options and the main necessities

which the territory is demanding for its conservation, protection and development, which is considered crucial for the correct human use of Maritime Areas (Juda & Hennessey, 2001; Hogg et al., 2021) Concepts and knowledge are elicited and structured around three strategic areas, in coherence with the Environmental Contract thematic objectives. These areas are: *governance; environment; economic and social development*. It is also considered that the definition of these strategic operational fields helps to involve in the process a broader typology of stakeholders. The first scenario is the *Trend scenario*, which seeks to reproduce the continuity of current trends (positive and negative) and to evaluate how this would affect the target area given the case no corrective measures or sustainable projects were to be implemented. This scenario contemplates a limited and uninterested involvement of the citizens, companies, and administrations towards the target area, as well as management and conservation policies which do not encourage the involvement of all territorial stakeholders. Therefore, it represents the continuation of the present development pattern where current protection and conservation policies and good practices implemented by stakeholders are not capable of improving the foreseen

target area's future. For this reason, it is not considered as the optimal framework.

The next step in the elaboration of the scenarios corresponds to the consideration of all the possible corrective actions which would balance out the unsustainable tendencies of the actual processes taking place in the target area, addressing the same strategic areas as the trend scenario. This sets up the *Oriented scenario*: its construction relies upon the maximization of the environment protection actions, the collaborative governance promotion and the economic and social development plans. However, this previous scenario needs to be subjected to stakeholders' consideration, incorporating their interests, desires and linked-to-the-territory knowledge, as disconnection between citizenship, public entities and the private sector is one of the main obstacles to avoid configuring a strong and lasting governance model which would ensure the target area's biodiversity. This is where the participatory activities of the territorial laboratories become fundamental for the process of generating the third scenario, the *Preferred scenario*. It combines

aspects of the Trend scenario and the Oriented scenario that are considered as the most relevant to the members of the community and engaged stakeholders. It will balance the potential reality of the future while providing, on one side, opportunities to adjust to changing development patterns (ecological, social, and governance-related), and, on the other side, addressing the desired objectives of environmental protection and economic development, which are to areas commonly identified as incompatible (Rees, 2003). One example of this type of opportunities could be the creation of touristic products based on the ecological value of the territory (Hose, 2007) and all the economic possibilities this would generate for the inhabitants. This whole process allows continuous and reflective identification of the needs and possibilities of territories such as marine areas, while also tackles the problem of unrealistic policies or projects which, firstly, are not manageable or correctly implemented, and secondly, do not take into consideration the needs, desires and knowledge of the people who live, build and are part of the target area.

### 3.4.2 Final outputs: Action Plan and commitment to act

*Giancarlo Gusmaroli*

The whole Environmental Contract process focuses on collecting requests and sharing proposals among stakeholders that are engaged on a voluntary basis, grounded on a common knowledge and vision on the

target area, with the ultimate scope of building an operational strategy for its integrated management. Its final outputs are the formal Agreement to be subscribed by key stakeholders, and the Action Plan consisting in a

group of integrated actions to be implemented in a short-medium term. The Agreement contains a set of rules (main recommended contents are listed in Table 3.1) structured according to the chosen legal tool. It is a formal, administrative agreement with legal force, that is binding for the undersigning parts, to be set according

to national/regional/local regulations for public-private partnership. It consists of two parts, the first contains the forewords that resume all relevant regulatory references for the Contract, the second lists the articles that set the scope, the objectives, and the rules of the commitment.

Table 3.1 – Recommended minimum contents of the formal Agreement

RECOMMENDED FIELDS		RECOMMENDED (MINIMUM) CONTENTS
WHAT	CODE, TITLE AND DESCRIPTION	Each action should be identified with a code and a concise title, in order to enable browsing through the action plan in an easy and speedy way. A comprehensive description should be added too, in order to supply enough references to unequivocally feature what is expected to be implemented.
	MOTIVATION	Highlighting motivations that led the actions to be conceived (i.e. to overcome a problem, to deepen knowledge, to set premises for cooperation amongst stakeholders, etc.).
WHY	OUTPUTS AND OUTCOMES	A clear (and possibly quantitative) target should be set for each action, both in term of effectiveness (output) and effectivity (outcome). Outcomes should be linked to the specific contribution that any single action is expected to provide to the overall objectives of the Environmental Contract.
	CONSISTENCY (REGULATORY FRAMEWORK AND SPECIFIC OBJECTIVES)	Each action should be clearly linked to the target objectives of the Environmental Contract, both general (i.e. SGDs) and local (i.e. Regional Plans).
WHO	ROLES OF PARTNERS	Each action should have a single Agreement subscriber in charge of coordination (responsible party), a variable number of Agreement subscribers engaged for implementation (involved parties) and an extra number of other subjects (not Agreement subscribers) identified as "to be engaged" during the implementing phase. Roles and responsibilities should be clearly described in the articles of the Environmental Contract.
WHEN	TIMELINE FOR IMPLEMENTATION	Each action should have a starting and ending date (month/year) within the lifespan of the Environmental Contract.
WHERE	AREA OF INTERVENTION	A geographic (extensive or site-specific) area of intervention (the whole Environmental Contract reference area or part of) should be assigned to each action.

HOW	FINANCIAL REQUIREMENT	When available, a - even rough - cost estimation for action implementing should be provided. Otherwise cost estimation should be included in action description as an output to achieve in the initial stage of action implementation. If possible, the financial need should be referred both to human resources (i.e. subscribers' personnel and/or external assistance) and works/supplies.
	FINANCIAL COVERAGE	When available, the financial coverage should be made explicit. The coverage might be granted by any of the Agreement subscribers and/or by any outsource (i.e. public and/or private funding). If the information is not available, one or more general funding channels should be identified (i.e. European, national, regional, local funding).
	OPERATIONAL GOVERNANCE	If the implementation of the action requires any governance setting (i.e. establishment of a negotiation table or coordination board, or the signature of a specific MoU), any relevant detail and consequent commitment should be reported.
	MONITORING INDICATORS	Each action should be monitored along the whole Environmental Contract lifespan, both in term of outputs and outcomes achieved. If possible, indicators, deadlines and responsibilities should be made explicit.

The Action Plan, the priority annex of the formal Agreement, is constituted by a list of identified actions. Each action must specify the type of intervention (concrete, research, data collection, ...), the area of implementation, the objectives and expected results, the responsible bodies and other stakeholders involved, the necessary financial and human resources (both available and to be allocated), the

implementation lifespan and the related monitoring activities (main recommended contents are listed in Table 3.2). Besides the Action Plan, it is important to consider that all relevant documents prepared during the decision-making process (i.e. *Context analysis, Scenarios, ...*) should be added as annexes to the Agreement. The Action Plan should be articulated into: (i) a synoptic table, reporting

Table 3.2 – Table Recommended minimum contents of the Action Plan

	RECOMMENDED FIELDS	RECOMMENDED (MINIMUM) CONTENTS
FORWARDS	REGULATORY FRAMEWORK REFERENCES	A comprehensive mention to the relevant regulations (laws, plans, agreements, guidelines, etc.) should be provided, including references both to target area regulation and Environmental Contract regulation (including Public-Private Partnership and/or any other similar participated/negotiated agreement tool) at international, national, regional, local level.
	RATIONALE	An outlook to motivation, scope and general objectives of the Environmental Contract should be reported, including any background information useful to feature the environmental and socio-economic context in which the governance process take place.
	RESUME OF THE PROCESS MILESTONES	An accounting of the governance path that led to the Agreement subscription should be detailed, including methodological references, event/meeting citation and key outputs/outcomes reached along the process.

ARTICLES	REFERENCE AREA	The area to be considered by the Environmental Contract, as target area must be defined and the reasons for considering a functional area that overcomes administrative borders described must be described (See paragraph 3.3.1).
	SCOPE AND SPECIFIC OBJECTIVES	A detailed description of the Environmental Contract scope and a list of its specific objectives, as much quantitative as possible, should be provided, possibly ranking governance target in terms of relevance for the target area management and the stakeholder satisfaction.
	DURATION	The lifespan of the Environmental Contract should be declared (typically between 3 and 5 years starting from the signature), drawing any relevant procedure for establishing an advanced termination or a time extension.
	IMPLEMENTING BODIES & OPERATIONAL GOVERNANCE	Governance requires explicit roles and clear responsibilities in order to be effectively managed, thus requiring the activation of dedicated bodies for the coordination and monitoring of the implementation phase, the continuation of the participatory process and the establishment of a transparent/collaborative decision-making arena (with clear rules). A comprehensive map and description of Agreement signers' tasks and organizational arrangements should be provided.
	ACTION PLAN	The structure of the Action Plan should be described, including the meaning of each content.
	COMMITMENT FOR SUBSCRIBERS	Signing the Agreement entails subscribers with responsibilities. A clear description of which commitment is implied with the signature should be reported, with specific reference to general burdens (i.e. commitment to be actively engaged and to support the governance of the implementation phase) and specific burdens (i.e. commitment to action within any action/activity included in the plan of measures).
	MONITORING	A clear description of Environmental Contract performance monitoring should be provided, including an appropriate methodological and operational framework for responsibilities, deadlines, reporting and consequent correction actions.
	MODIFICATION OF THE AGREEMENT	In case of Agreement amendment (i.e. admission of any new stakeholder, withdrawal of any current subscriber, modification of the articles and/or of any annexed document, etc.), a clear rule has to be set (in connection with what has been set in terms of implementing bodies, operational governance and commitment for subscribers).
	ANNEXES	A list of annexes should be provided, possibly including a short description of the main contents of each of them.

in a synthetic way all the foreseen actions and their main features (i.e. responsible party, total budget, implementation lifespan, consistency with regulatory framework and/or Contract objectives); (ii) a detailed abacus of actions, containing the following set of records for each action (all necessary information for the

actions to be implemented effectively). It is recommendable that each is detailed into operational activities, as generic commitment typically doesn't lead to action. The Action Plan can be detailed with a fiche for each action and even for each activity (where one action is implemented through one or more specific activities that requires



more details to be explained). As far as possible, budget estimation and financial coverage must be detailed in order to enable the Contract to be consistent and attractive for funding. Even a rough estimation could be fine, given that during the implementation of the Contract an appropriate accounting should be put in place. Monitoring should be action specific (output and outcomes indicators for each action, with deadlines and responsibilities) and contract specific (outcomes indicators for each objective, with deadlines and responsibilities). Reporting should be clearly included in the articles of the Environmental Contract, in order to provide the subscribers (and the larger public) with evidence of the implementation progress and to enable them to take any corrective action that might be useful for effectively achieve Contract's objectives. The process of the Environmental Contract does not conclude with the subscription of the Agreement, which determines only the opening of the implementation

phase. Therefore, it is pivotal not only to target consistently the signature, but also to ensure that the process proceeds effectively and efficiently. For these reasons, it is recommended to establish clear responsibilities and to allocate sufficient human and financial resources to continue the process after the signature and to monitor the effectiveness of the process and, if necessary, to modify and adjust its goals basing on a specific outcome indicators. For all these reasons it has to be highlighted that most of the efforts of the Environmental Contract process must be focused on setting the ground (and the rules) for a governance model which has to become a truly shared working method among stakeholders. This attitude, focused on 'how to work' or 'how to make decisions' as a prerequisite to 'what to work on' or 'what decisions to take' allows to frame proper governance orientations which must be considered as the corner stone for managing any change/update that might come during the implementation phase.

#### ENVIRONMENTAL CONTRACT HIGHLIGHTS

- The Environmental Contract is a process for creating synergies and integrating actors, not a new planning tool.
- The Environmental Contract allows to bring together horizontal and vertical subsidiarity.
- The Environmental Contract as a governance process and the formal Agreement have to be flexible and adaptable.
- The formal Agreement has many definitions and many terms. The term is not as important as the key aspects of the governance
- The formal Agreement and the Action Plan have to be developed based on an inclusive participative and negotiated decision-making process.
- The formal Agreement is voluntary but binding in terms of liability, financing, and timing.
- The formal Agreement takes place among both private and public actors (public-private partnership).

#### Checklist

On the right: Seabed.  
Credit: Ventotene and  
Santo Stefano Islands  
SNR/MPA



**4.**  
**Lesson learned from**  
**TUNE UP pilots**





[1] Regulated by Ministerial Circulars in 1981, 1993, 1994, 2004.  
[2] According to the article 68-bis of the Legislative Decree n. 152 of April 3, 2006.  
[3] In Spain a Contract can only be signed if it concerns activities to be implemented through financial resources already available and forecasted in the involved public institutions account.

On the left: Amvrakikos fauna. Credit: Amvrakikos Gulf-Lefkada Management Agency

## 4.1 An overlook on TUNE UP pilots

### 4.1.1 The Environmental Contract as a legal act: constraints and steps forward

*Serena Muccitelli, Carolina Pozzi*

The issue of formalizing the Environmental Contract at a regulative level is crucial and complex. Even though according to the Water Framework Directive it can be listed as a “negotiated environmental agreement” for “the active participation of all interested parties in the implementation of River Basin Management Plans” (EU Directive 2000/60/CE), negotiated environmental agreements are not always embedded into the national regulations or are translated it into different administrative and legal acts. The issue of how to finalize the Environmental Contract process with a final legal act of commitment emerged already in WETNET project. Partners encountered legal limitations concerning the final Agreement, which becomes binding in terms of liability, financing, and timing, and thus for incorporating the Environmental Contract into their legal frameworks. This was mainly due to two factors. Firstly, the tool that is new for almost all European Countries except for Italy and France, where its regulatory framework is already established and formalized at national level. Environmental Contracts have indeed existed in France for over 20 years as voluntary and concerted action programs that cover a 5-year period with a contractual financial commitment.<sup>1</sup> In the Italian context, River Contracts have spread since the early 2000s as “negotiated and participatory planning processes

aimed at containing eco-landscape degradation and redevelopment of river basins/sub-basins” (National Charter of River Contracts) and were recognized at national level in 2015.<sup>2</sup> Secondly WETNET missed to develop a comprehensive study aimed at understanding how to include the tool into the local administrative and legislative framework, which turned out to be an obstacle for the finalization of the final Agreement. For these reasons, aside from transferring the Environmental Contract form wetlands to MPAs, TUNE UP activities included an investigation about the national and regional regulatory framework and strategies for potential integration of MPA Contracts to produce the foundation for an effective implementation of the tool in Countries other than Italy and France. The analysis performed by TUNE UP partners shows that Italian and French partners’, having already a regulatory framework for River Contracts at both national and regional level, will successfully integrate the MPA Contract tool in their existing legal structure, whereas the remaining partners are still experiencing difficulties in defining an effective integration of the tool. Partners who tested the tool for the first time (in Albania, Montenegro and Greece) successfully implemented the process following TUNE UP methodology but faced legal constraints in formalizing the public-private partnerships agreement,

mainly generated by the use of the term “Contract”. They proposed to overcome these limitations by either using voluntary “Memorandum of Understanding” (in Montenegro) or by integrating the process into already existing legal acts such as the “Law on protected areas” (in Albania), the “River Basin Management Plans” or “Natura 2000 measures” (in Greece). Those solutions aren’t entirely consistent with the objectives of the Environmental Contract, which should be a self-standing tool capable of keeping together the existing planning tools, but are to be considered an intermediate step to first introduce it in the national or regional regulations. With regards to the partners who tested the Wetland Contract tool for the first time in WETNET (in Slovenia and Spain), the analysis and TUNE UP testing activities confirmed the difficulties already encountered in formalizing the act, and specifically the lack of a structured tool in their regulatory framework, as well as the impossibility to use the term “contract” to implement binding private-public agreements<sup>3</sup>, which were finally addressed by introducing the tool as: (i) a “Memorandum of Cooperation” (MoC) subscribed between the parties to outline a framework for inter-institutional and inter-sectoral collaboration, between administrations and public institutions, social and economic actors. The MoC includes a list of intentions for the target area, the responsibilities of each of the signers, and their degree of involvement, and is based on the principles of the process to be inclusive and voluntary. In order to build a bridge with the actual Environmental Contract, the

MoC refers to the attached Action Plan, which is structured including the definition of detailed measures, concrete actions, budget lines and resources to be found (in Spain); (ii) a “Memorandum of Understanding” (MoU) defining commitment of the signers to make available appropriate resources for active participation, to cooperate with the possible available resources, implying the responsibilities for the activities to be agreed through the process (in Slovenia). Neither these strategies are entirely consistent with the objectives of the Environmental Contract tool, since the MoC is not a binding tool, it foresees no financial commitment for the signers, nor budget provisions, which means that no legal responsibilities can derive from it. However, once explored all the possibilities of formal adoption of the tool, it can be considered a first step for its integration into the local regulatory framework.

Under this perspective, current integration of the MPA Contract tool in Countries other than Italy and France needs mainstreaming activities and extensive analysis specifically devoted to negotiated and participative programming addressing environmental topics to be implemented. Moreover, since TUNE UP has been designed to incept MPA Contract processes through the engagement of reliable/technical bodies (TUNE UP partners) and management authority of the target area (TUNE UP associated partners) as their promoters, major changes in policy frames encompassing more adequate legal tools than those already available is beyond the scope of the partnership. Therefore, the bottom-up approach is bringing the

MPA Contract to the attention of the competent regional and national authorities, who have to be involved in order to be aware of the new tool

and to find the appropriate setting for the Environmental Contract into their regulative system.

#### 4.1.2 Key features of the target MPAs

*Pablo Vera*

TUNE UP launched the MPA Contract process in 10 pilot MPAs of 7 countries (Spain, France, Italy, Slovenia, Greece, Albania and Montenegro), corresponding to 6 ecoregions (Alboran Sea, Levantine Sea, Gulf of Lion, Adriatic Sea, Tyrrhenian Sea and Ionian Sea). This geographical breadth makes it possible to collect a wide variety of territorial realities, both in relation to the environmental values for which these MPAs have been protected but also because of the importance of these areas for the local economy and other relevant socio-cultural aspects for the subscription of MPA Contracts.

In total, the pilot MPAs represent almost 200,000 ha of protected areas, of which about 80,000 ha correspond to strictly marine habitats. The pilots’ target areas are Nationally designated MPA, Natura 2000 sites, Marine part of a Ramsar site, Marine part of a UNESCO Biosphere reserve, and/or Internationally designated Specially Protected Areas of Mediterranean Importance (SPAMI).

These pilot MPAs are distributed along the north-west and north-central shores of the Mediterranean and shelter diverse habitats. Societies in the surroundings of these areas established over centuries relationships based on the provision and exploitation of their resources, depending on them

for their economies. A total of 33 habitats present in the pilot MPAs are protected by the Habitats Directive, 9 of which are considered a priority for their conservation in the European Union. Due to the marine character of these protected areas, there is a greater representation of the coastal and halophytic habitats (11 habitats), as well as the coastal habitats of coastal sand dunes and inland dunes (11 habitats). The typology of the coastline leads to some prevailing environments, which differ according to the belonging ecoregion. Thus, in the western MPAs the most extensive natural habitats include permanent sandbanks, with the presence of seagrass and other meadows species, tidal shores, as well as coastal lagoons, Mediterranean halophilous scrubs, pioneer annual vegetation, sandy and muddy flats, a wide variety of dune habitats, and Mediterranean salt steppes. In the oriental pilot MPAs, the shoreline is mainly rocky with relevant pocket beaches of pebbles and sand, as well as caves and canyons locally occurring. In this region the underwater landscape is of exceptional quality with cliffs, submarine caves and associated fauna and flora. Generally, the benthos of the MPAs are very rich, both for the photophilic and for the sciophilous sector. The presence

of cavities and small caves along the rocky cliffs allows the settlement of coralligenous biocoenoses already a few meters deep, some of them of paramount conservation concern in the Mediterranean context. Not all pilot MPAs are strictly marine, and some include freshwater and terrestrial conservation values closely linked to their marine values. Accordingly, management of these MPAs must necessarily be integrated and consider the complementarity and interactions between management aspects and conservation of all environments. In this sense, a series of freshwater habitats, sclerophyllous scrubs, natural and semi-natural grassland formations, raised bogs and mires and fens, rocky habitats and caves (including some marine caves), and forests, occurs in the terrestrial part of MPAs. On the other hand, TUNE UP MPAs reflect other non-environmental interests. Most of them share an interest in hosting important archaeological, historical and ethnological heritage, as well as high landscape, economy, education and scientific value. Due to the historical coexistence between human societies and these landscapes and natural resources, a series of impacts on biodiversity currently occur. Despite the fact that all MPAs are protected areas under the national or international legal framework, the occurrence and intensity of some pressures and threats are identified as high. This is the case of impacts related to agriculture and aquaculture, together with pollution, whose intensity is considered high in most of the pilot MPAs. Intensive agricultural activities, particularly

rice cultivation, generate pollution (pesticide, nutrients) that threatens marine environments through drainage networks. Marine environments receive also atmospheric pollution from industrial activities and transport. Other predominant impacts in the pilot MPAs are considered moderate. These are residential and commercial development, over-exploitation (overfishing and lack of control procedures), transport (linked with sea traffic and ports), human disturbances (mainly related with recreational areas) and invasive and other problematic species (which occurs in almost all the pilot MPAs). Also, as it happens in the whole Mediterranean basin, the pilot MPAs are highly exposed to the effects of climate change, in particular the rise in sea level and the decrease in rainfall, the latter affecting the hydroperiods of the wetlands and the freshwater/salt water balance. Most of these threats and pressures act synergistically on sink habitats<sup>4</sup> and ecosystem productivity, potentially negatively affecting also the economic sectors. Only a few of these MPAs have developed a management plan aiming at balancing between the conservation of its important biodiversity and a rational use of natural resources through direct actions reducing impacts, pressures and the described threats. In fact, the diagnoses made on these spaces generally include two key aspects that show the need to improve environmental governance: (i) improvement of knowledge and monitoring of the natural heritage of the MPAs; (ii) site-specific governance in order to improve coordination and integration between public institutions, scientists, technicians and citizens.

[4] Sink habitats are habitats in which populations cannot survive when they are isolated from other populations.

### 4.1.3 Key themes addressed from scenarios

*Romina D'Ascanio*

For each of the TUNE UP pilots, three scenarios - trend, oriented and preferred – have been drafted on the three strategic topics of (i) governance; (ii) environment, and; (iii) economic and social development in order to frame the criticalities and potentialities (see Paragraph 3.4.1). From the trend scenario it is possible to infer the problems and the negative tendencies affecting the target areas in the current moment; from the oriented scenario it is possible to define a set of positive interventions (material and immaterial likely to improve the pilot. Finally, the preferred scenario highlights the proposals selected to achieve short-mid term improvement goals. Subsequently, in order to frame a common insight of MPAs' criticalities and opportunities, a comparison between pilots' scenarios was operated. The issues raised can provide a Mediterranean-wide reference framework for MPAs that attempt to start an Environmental Contract process or acquire a collaborative governance approach in their management in order to balance the needs of nature conservation and economic development. A specific comparison matrix, reporting the priority information provided by partners concerning the main features emerged in the three scenarios and on the three topics of all pilots has been implemented (Figure 4.1). Each partner filled its own specific row and then, the analysis of the matrix was done for the three strategic topics.

**Governance**

Most of the pilots share several

criticalities such as: (i) the complexity of the institutional framework; (ii) the fragmentation of the responsibility; (iii) lack of coordination between local authorities, and; (iv) lack of a common strategy for the MPA. In most of the pilots, the lack of participation of local communities in the governance process has been highlighted. Especially in the Slovenian, Italian, Montenegrin and Albanian pilots, small staff and poor financial resources are affecting the good management of the MPA and in turn the nature conservation. Other important issues refer to the lack of awareness (Albania, Italy); the ineffectiveness or the obsolescence of planning tools (Italy, Greece, Albania); the lack of a centralized system for data collection regarding the status of the environment, human activities and regulations (Greece); the presence of uncoordinated operation of individual sectors (Slovenia). Some of the partners, especially SEO/Birdlife (Spain), underlined how this conflicting situation negatively affected the whole conservation status of the MPA. The proposals for improving the governance of the MPAs emerging from the oriented and preferred scenarios are numerous and concern mainly the improvement of communication between institutions and stakeholders' participation, and specifically the establishment of cooperation networks between key stakeholders, as proposed by ZRC-SAZU (Slovenia), or of specific measures to foster collaboration for transparency and



PP	ACRONYM	SCENARIOS									COMMENTS
		GOVERNANCE			ENVIRONMENT			ECONOMIC AND SOCIAL DEVELOPMENT			
		TREND	ORIENTED	PREFERRED	TREND	ORIENTED	PREFERRED	TREND	ORIENTED	PREFERRED	
LP	ANATOLOIKI										
PP1	FAMP										
PP3	MEDSEA										
PP4	MIN ALBANIA										
PP5	ZRC SAZU										
PP6	SEO BIRDLIFE										
PP7	TDV										
PP8	UOM										
PP9	AMVRAKIKOS										
PP10	UNIROMA3										

Figure 4.1 – Scenario Comparison matrix. Authors: D’Ascanio, Muccitelli, Pozzi

open government, as proposed by FAMP (Spain). Another operative action proposed by AMW (Greece) is to create a platform for data collection and dissemination regarding the environmental status, socio-economic development and regulations that will allow better communication among all stakeholders. In many of the pilots (Greece, Italy, Spain and Albania), the need to adopt or update planning tools at different levels, recurring also to participative practices, was identified as fundamental for improving the management. Finally, specifically for the Italian case, the need for enhancing the MPA management office autonomy in respect of the municipality (when the latter constitutes the actual management authority) emerged.

#### Environment

As for environmental issues, there are more commonalities than differences among the pilots. All of them have highlighted the

effects caused by climate change and the presence of invasive alien species. Many of them have also identified habitat fragmentation and loss of biodiversity as a central problem. These are the pivotal issues recognised at Mediterranean level. In other pilots (France, Greece and Italy), also the coastal erosion was listed as a relevant problem. In these three cases and in Albania also the pollution was listed among the criticalities.

Another highlighted group of problems refers to the human impact, such as: (i) inadequate or unsustainable farming systems (ZRC-SAZU), as well as illegal or overfishing (ZRC-SAZU, Albania, MEDSEA, AMW); (ii) the effect of seasonal tourism affecting the good status of the MPAs’ environment conservation (ROMA3).

Lastly, the lack of awareness of local communities regarding marine ecosystem environmental and landscape values is one of the main criticalities affecting the small scale

actions that can be put in place for the proper protection of the nature. The corrective actions proposed within the oriented and preferred scenarios were finalized at monitoring alien species and implementing measures against climate change. Furthermore, it could be possible to implement tools to monitor the coastal erosion through the use of new technologies, as proposed by Anatoliki’s pilot. The necessity to increase scientific knowledge based on the value of nature was stressed both in order to implement the planning tools (AMV, ZRC-SAZU, SEO/Birdlife) and to increase community awareness. Activities of citizen science and dissemination campaign have been proposed in order to diffuse the culture of marine conservation.

#### Local development

Many results emerged, mostly addressing the effects of unsustainable activities.

Firstly, the lack of support for the local SMEs, budget for implementing sustainable project and cooperation emerged under the business point of view. Then, some of the pilots have a mainly seasonal tourist economy, which does not allow diversification of the offer.

In some cases, fisheries management problems were encountered. If professional fishing is regulated in most cases, recreational and sport fishing is not, negatively impacting on the ecosystem (SEO/Birdlife). Others have pointed out that traditional fishing is being increasingly abandoned.

Also concerning the agriculture, different positions have emerged: on the one hand the pollutants of

intensive agriculture worsen the quality of the waters of the MPA, on the other hand traditional agriculture (more sustainable) is not practiced very much resulting less attractive for new farmers (ZRC-SAZU + AMW). In other cases, where some innovative and sustainable agriculture practices do exist, it is difficult to cooperate (RM3). Furthermore, waste management stands as major problems in some pilots (Anatoliki + RM3 + UOM). The lack of mobility infrastructure and digital infrastructure proves pivotal especially in remote areas.

From the oriented and preferred scenarios, many positive measures and activities have been proposed such as the possibility to implement: (i) touristic offer integrating also the inner areas (ZRC-SAZU) in order not to overload the fragile marine habitats; (ii) experiential tourism or sustainable tourism liable to further diversify the destinations in the MPAs.

The possibilities offered by green jobs were highlighted such as (i) sustainable fishing that uses traditional techniques in order to combat the disappearance of these economic practices; (ii) agriculture with the use of more sustainable agricultural techniques in order not to pollute and to experiment some innovations with new farmers. About the waste, awareness-raising campaigns on marine litter and the reuse of solid waste were proposed. Finally, dissemination activities of the economic support possibilities offered by European resources for SMEs have been recommended.

From this comparison, the more urgent criticalities present in MPAs can be synthesized as follows:

- lack of a multilevel governance considering bottom-up initiatives;

- lack of communication among stakeholders from different sectors;
- Managing Authority's inability to organize funds and cooperate with stakeholders;
- absence of a sustainable management of the protected area;
- lack of public awareness on the value of the resources of the MPA and of economic opportunities that a sustainable management could provide to the local community;
- urgency to find solutions against climate change and invasive alien species;
- need for tourism diversification and alternatives to beach tourism;
- need for sustainable fishery and agriculture.

#### 4.1.4 Key stakeholders engaged

*Pablo Vera, Romina D'Ascanio, Carolina Pozzi*

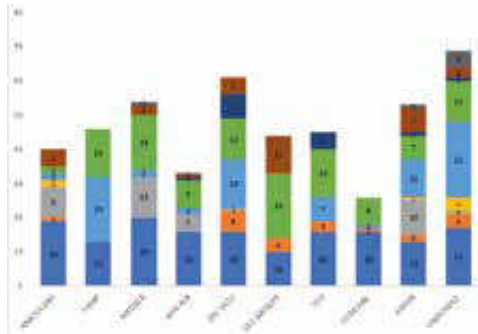
In all the territorial realities covered by the TUNE UP project, the recurrent objectives of the implementation of MPA Contracts are to create synergies through cooperative formulas and to increase knowledge for MPA management. All the processes had involved the public bodies responsible for the management of the MPAs, which were strategically integrated as associated partners into the project. Their active and proactive participation is essential since they legitimize the governance process and are necessary to implement strategic or structural actions that may be defined in the MPA Contract Action Plan. Indeed, both TUNE UP and WETNET experience have shown that in those cases in which the involvement of this entities was lower, the governance process and the involvement of the other stakeholders weakened. In some of the pilot areas, it has been key to have stakeholders who generate stability in the process. These entities, not necessarily public but acting as a reference point in the scope of the MPA, assume the course of the process

by means of their own strategic work. Therefore, they must have extensive experience in governance models and specific knowledge on voluntary, inclusive agreements. There are specific cases in France (Conservatoire du Littoral), Spain (Coast Demarcation in Valencia) and Montenegro. Due to the need to develop online most of the participative processes derived from COVID-19 outbreak and subsequent sanitary restrictions, the participation of small stakeholders was reduced (lack of logistical capabilities, or difficulties related to the expression of their interests in a comfortable and confident way). Among these, the cases found most frequently in the TUNE UP project are those entities most dependent on the favourable conservation status of the MPA, such as local fishing communities, small businesses, and local associations. Another key set of stakeholders, such as NGOs, research centres, or local public bodies, could be considered "hinge stakeholders". Thanks to previous joint work with other stakeholders that helped to grow

confidence between each other, these stakeholders allow the involvement of other stakeholder who might initially feel reluctant to participate in the governance process and are equally important for the subsequent development of the Contract's Action Plan. The role of these hinge stakeholders is key, since they manage to involve small entities that generally are great allies for the development of the Action Plan. At the same time, small entities are aware that they cannot by themselves trigger significant changes in the state of conservation or in the local socio-economic environment. For this reason, it is very important that regional and national public bodies that have the compass role in the process put on the table the need for the participation of these small entities to ensure the improvement of management tools, defining by this way governance models based on shared management or co-management. The analysis of stakeholders conducted by project partners were processed in order to identify some main features in terms of typology (Figure 4.2), fields (Figure 4.3) and territorial level of activity (Figure 4.4). Furthermore, at the end of the testing phase an additional revision in term of typology has been done analysing those stakeholders which have been actively involved in the pilot processes (Figure 4.5). At project level, the mapped stakeholders belong mainly to public bodies, associations and private businesses. Specifically, at pilot area level, all partners identified a high

number of public bodies; the highest number of private businesses was mapped by FAMP, ZRC-SAZU, Tour du Valat, Amvrakikos and Roma Tre University; the highest number of associations and organizations was recorded by FAMP, MEDSEA, ZRC-SAZU, SEO/Birdlife, Tour du Valat and Roma Tre University; SEO/Birdlife identified the highest number of high education and research centres; and Amvrakikos and MEDSEA mapped the highest number of business support organizations. Both at pilot area level and project level, the mapped stakeholders categorized by fields mainly belong to "environment and biodiversity", follow by "tourism", "local development" and "fishery". Regarding the territorial level of activity, at pilot area level the highest percentage of local stakeholders was reported by FAMP, MEDSEA, Ministry of Albania, ZRC-SAZU, Tour du Valat, Amvrakikos and Roma Tre University; while Anatoliki and University of Montenegro identified more national stakeholders and SEO/Birdlife more regional ones. In general, at project level, it can be highlighted that 50% of the mapped stakeholders act at local level. Finally, according to the analysis of the stakeholders actually involved in the processes, the typology categorization seemed quite similar to the one related to mapped stakeholders but the number of actors consistently decreased except for Tour du Valat, SEO/Birdlife and Ministry of Albania.

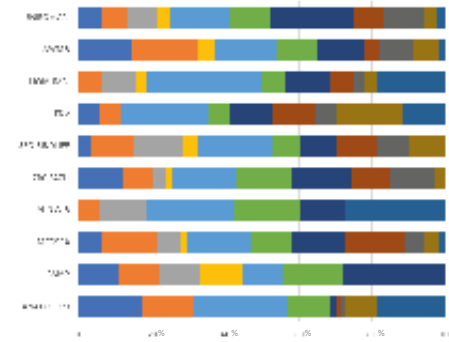




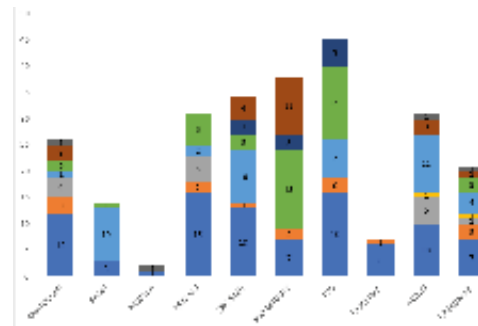
Public bodies  
Sectoral agencies  
Business support organisations  
Infrastr. and service providers  
Private businesses  
Associations/organizations  
Schools and training centers  
Higher education/research  
Other

Figure 4.2 -  
a) Number of mapped stakeholders categorized by typology for each pilot  
b) Percentage of mapped stakeholders in TUNE UP project categorized by typology

Figure 4.3 -  
a) Percentage of mapped stakeholders categorized by field for each pilot  
b) Percentage of the mapped stakeholders in TUNE UP project categorized by field



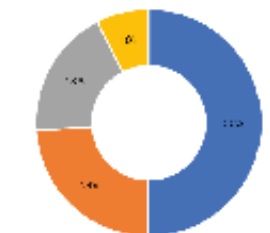
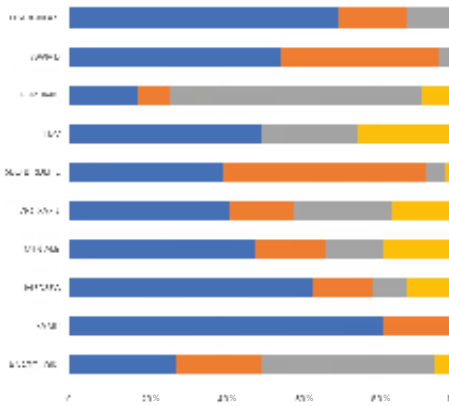
Agriculture  
Fishery  
Navigation  
Energy  
Local development  
Environment/biodiversity  
Tourism  
Recreations  
Culture  
Research/Monitoring  
Other



Public bodies  
Sectoral agencies  
Business support organisations  
Infrastr. and service providers  
Private businesses  
Associations/organizations  
Schools and training centers  
Higher education/research  
Other

Figure 4.4 -  
a) Number of involved stakeholder categorized by typology for each pilot  
b) Percentage of involved stakeholders in TUNE UP project categorized by typology

Figure 4.5 -  
a) Percentage of mapped stakeholders categorized by territorial level of activity for each pilot  
b) Percentage of the mapped stakeholders in TUNE UP project categorized by territorial level of activity



Local  
Regional  
National  
International



## 4.2 TUNE UP target areas and pilot processes

### 4.2.1 Thermaikos Gulf, Greece

*Kostas Kostantinou, Anastasia Lespouridou*

*Target area ID*

**PARTNER:** ANATOLIKI SA

**LOCATION:** Thessaloniki Regional Unit – Region of Central Macedonia, Greece

**MANAGEMENT AUTHORITY:** Thermaikos Gulf Protected Areas Management Authority (TGPAMA)

**MARINE PROTECTED AREA SURFACE:** 4,350.78 ha

**INFLUENCE AREA SURFACE:** 17,135.10 ha (Thermaikos Gulf Protected Areas)

**ENVIRONMENTAL SCHEMES:** The pilot area is part of the River Basin District of Central Macedonia (EL10). The territory falls within the National Park of Axios - Loudias – Aliakmonas which is designated as an Absolute Nature Conservation Area and Nature Conservation Area, and a Ramsar site (3GR007) since 1974. The area belongs to the Natura 2000 sites. It is a Site of Community Importance (SCI) / Special Area Conservation (SAC) GR1220002. It is also a Special Protection Area (SPA) GR 12 200 10. Most of the Area belongs to the National Park of the Delta Axios Loudias Aliakmon that has been appointed through the Joint Ministerial Decision (JMD) 12966/2009.

**MAIN FEATURES:** The pilot MPA of Axios Delta comprises a large part of the greater area under the jurisdiction of the TGPAMA. The pilot area is expanded around the Delta of Axios River and between the estuary of Gallikos River on the East, the estuary of Loudias River on the west and up to the National Road on the North. The sea front on the south includes 89.43 Km of coastline. The MPA is at the same time a valuable water resource and a place for the development of multiple economic activities in both the marine and land parts such as fisheries, mussel farming, livestock breeding and rice cultivation. Part of the pilot area also falls within the Regional Zone (Agricultural Farming Area) of the National Park. Being in the proximity of a metropolitan area such as Thessaloniki creates pressures and opportunities to this sensitive ecosystem.

On the left: view of the Thermaikos Gulf. Credit: ANATOLIKI SA

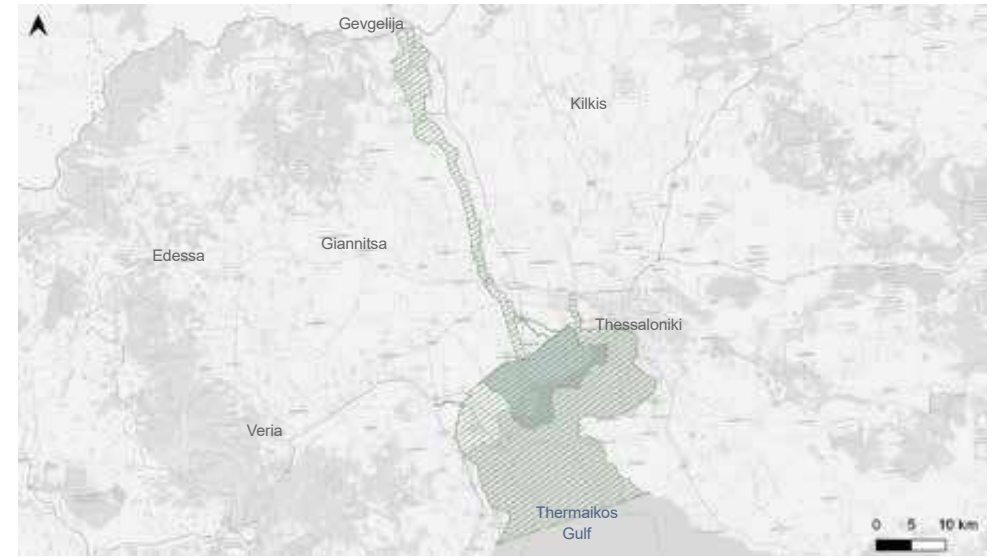




View of the target area.  
Credit: ANATOLIKI SA

Situated on the west coast of the Thermaikos Gulf the Axios Delta MPA is one of the most important ecosystems in Greece. The area is an attraction pole for the tourists due to the excellent landscape created by rivers and wetlands. The rice paddies, the bird fauna, the vegetation, the islets and the coastline in form of stripes across the Delta, contribute to positive impressions from the landscape. The area is an impressive mosaic of land, wetland and marine ecosystems. Rivers, lagoons, salt marshes, fertile fields and the sea give shelter to hundreds of species of plants and animals. It is a valuable biotope for many animal species, some of which are endangered. Macedonia's history, both ancient and modern, is inextricably linked to the plain of Thessaloniki and the river Axios. There is a museum of Balkan Wars in the wider area. The Management Authority was established in 2002 as the Management Authority of Axios-Loudias-Aliakmon Delta with

the aim of protecting and managing the wetland system consisting of the Deltas of the rivers Axios and Aliakmon, the mouths of Loudias and Gallikos rivers, the Kalochori Lagoon and the salt pans of Kitrus. In 2018, with the law 4519/20.02.2018 that defined new Protected Areas Management Bodies as legal authorities responsible for management of Natura 2000 protected areas in Greece, the Management Authority was renamed to TGPAMA and took under his responsibility new areas of the Natura 2000 network. It is now one of 36 Management Bodies operating in Greece. Currently there is a transitional period for Management Bodies of Protected Areas in Greece. With the late law 4685/07.05.2020 a new National Policy Governance System for Protected Areas has been established. By this Act a new National body responsible for the Protected Areas was introduced: The Natural Environment and Climate Change Agency (NECCA). The new law also



Map of the MPA (in blue) and influence area (green pattern)

foresees the implementation of the Protected Areas Management Units, new entities under which existing personnel of the current Management Bodies will be unified at Regional Level. The pilot area belongs to the Water Department of Central Macedonia, for which the River Basin Management Plan has been completed and approved in 29/12/2017. The purpose of the Management Plan is to fulfil the objectives of Directive 2000/60/EC. The main goal of the Plan is the integrated and sustainable management of water resources through the determination of principles and proposals for measures for the conservation and protection of water. According to the TUNE UP methodology for the formation of an MPA Contract, the identification of possible stakeholders involved in the area was done through a stakeholder's analysis/mapping. Forty different types of entities were mapped: 12 national bodies/authorities, 6 regional bodies authorities, 1 Local

Public authority, 9 Business support organisations, 2 private SMEs, 2 Interest groups, 5 Higher education and research institutes, 1 Sectoral agency, 2 Infrastructure and public service providers. ANATOLIKI invited them to participate in the 1st Local Conference, that was held on July 2020 in the nearby Municipality of Chalastra. In this event the TUNE project, its scope and expected results were presented and a first Local Focus Group (LFG) was formulated. A series of 3 Territorial Labs followed. During the territorial labs 25 different stakeholders participated in the procedures. Some of them were present in all sessions, others partially participated. Through round table discussions during local workshops and the distribution of information material and questionnaires, the LFG members contributed to the formulation of the alternative scenarios, shared their views on issues concerning the area and their activities and prioritized the

most urgent problems to be solved. The participants acknowledged the positive impact that the elaboration of the “Local Contract of Axios Delta MPA” could have in the pilot MPA, therefore agreed to sign a First Memorandum of Understanding (MoU). The importance of water for the region, which is the recipient of the residues of all activities, and its proper management, aiming at its qualitative and quantitative improvement, was identified as a common goal of all the stakeholders and the main objective of the Memorandum of Understanding. All participants agreed on the need to carry out their activities by adapting sustainable and environment-friendly practices. This specific objective is to be pursued through the following categories of actions that meet the 14 specific objectives of the preferred scenario for the pilot MPA:

- organized system of governance and coordination between the Authorities;
- improvement of knowledge and monitoring of the area;
- dealing with the effects of climate change;
- rational exercise of productive activities;
- rational management of water resources;
- reduction of pollution.
- Initially the first signatories of the MoU, 13 stakeholders in total, soon to be 14, have decided to formulate a management Board named: "Local Committee for the management of Axios - Delta MPA". All possible stakeholders initially identified will be asked to participate in the MPA forum. The signatories of the MoU will also act as peers to attract new entries.

## 4.2.2 Cabo De Gata-Níjar, Spain

*Andalusian Federation of Towns and Provinces*

*Target area ID*

**PARTNER:** Andalusian Federation of Towns and Provinces (FAMP)

**LOCATION:** Province of Almería, Andalusian Region, Spain

**MANAGEMENT AUTHORITY:** Agriculture, livestock, fishing and sustainable development Department of the Andalusian Region

**MARINE PROTECTED AREA SURFACE:** 12,012 ha

**INFLUENCE AREA SURFACE:** In addition to the MPA, the Cabo de Gata-Níjar Natural Park constitutes a territory with a surface area of 37,500 ha. It also includes part of the municipalities of Almería, Carboneras and Níjar. The total surface area of the municipalities is 49,630 ha.

**ENVIRONMENTAL SCHEMES:** The pilot area is a Biosphere Reserve, Special Protection Area for Birds (SPA) and Place of Community Interest (SCI). Likewise, since June 2001 it has formed part of the European Geoparks Network. The salt flats are included in the List of Wetlands of International Importance of the Ramsar Convention, and the coastal strip is protected under the figure of Marine Reserve, forming part of the list of Specially Protected Areas of Mediterranean Importance (SPAMI) of the Barcelona Convention.

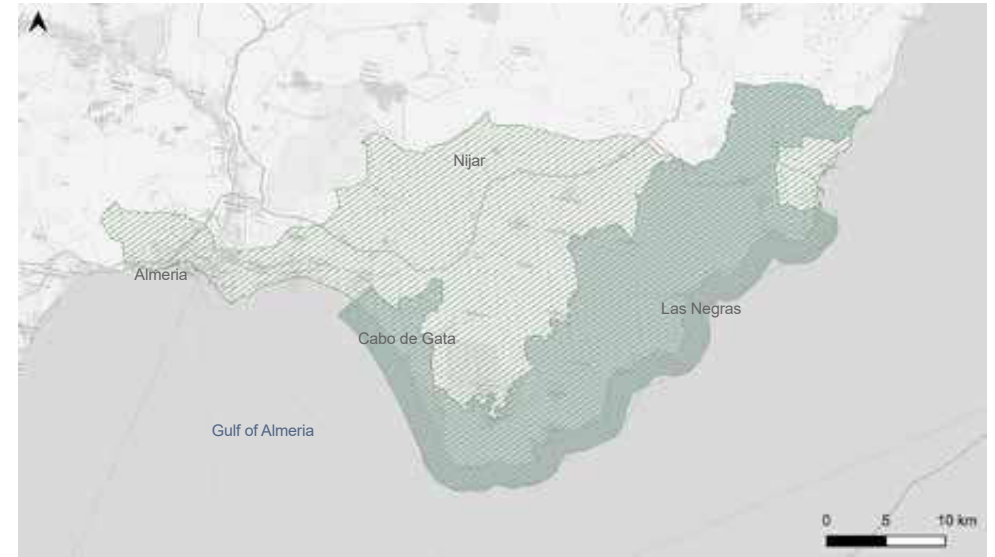
**MAIN FEATURES:** The Cabo de Gata-Níjar Natural Park constitutes a territory with a surface area of 37,500 and 12,012 marine hectares, with a maximum altitude of 562 metres at the level of La Serrata in the municipality of Carboneras and a minimum of - 60 metres at the bottom of the sea. The identity of this area is based on its semi-arid nature, being one of the few protected areas in Europe of volcanic origin, with a sub-desert and steppe vocation, and because it has the 63 km of best-preserved cliff coast of the Spanish Mediterranean coast and some of its best seabed.



View of the target area.  
Credit: FAMP

The Cabo de Gata-Níjar Natural Park has been established as a pilot area and the municipalities of Almería, Carboneras and Níjar are included as an area of socio-economic influence. It is the first maritime-terrestrial Natural Park declared in Andalusia. The limits of the protected area were established in Regional Decree 314/1987 of 23 December 1987, declaring the Cabo de Gata-Níjar Natural Park. The main characteristics of this Natural Park are derived from its semi-arid climate and its volcanic origin, which gives rise to a territory of high landscape and ecological value, which is why, in 1997, it was recognised by UNESCO as a Biosphere Reserve. In addition to the aforementioned Natural Park and Biosphere Reserve, the Cabo de Gata-Níjar area is also SPA and since 2012 it has been a SCI. It has also been part of the European Geoparks Network since June 2001. The coastal strip, due to its fishing interest, is protected as a Marine Reserve at national level. It has

also formed part of the list of Specially Protected Areas of Mediterranean Importance (SPAMI) of the Barcelona Convention since 2001. Another element that contributes to configure the Natural Park is the presence of a strong anthropic component. The extensive historical footprint of the different cultures and their uses continues to be appreciated in the presence of numerous features and elements of the territory, which have become differentiated from its landscape. This, together with its natural values, gives it an unquestionable anthropological value, as it allows us to follow, step by step, the way in which man has exploited its resources, modelling a landscape "made by man". The Cabo de Gata-Níjar Natural Park is thus a living example of the interaction between man and nature. The Natural Park is managed through the Governing Board, made up of representatives of the Regional



Map of the MPA (in blue) and influence area (green pattern)

Ministries and public administrations involved and representatives of other interested bodies, who ensure compliance with the rules of protection and defend the values and singularities of the site.

FAMP held a series of participatory events in October 2020, November 2020 and March 2021, involving various stakeholders, including: technicians and politicians from Almería, Carboneras and Níjar City Councils, Natural Park Cabo de Gata-Níjar, Agriculture, livestock, fishing and sustainable development department from the Andalusian Government, Levante Almeriense Rural Development Group, Local Action Group of the Fishing Sector Costa de Almería, Tragsa Group, Isub San José, Buceo las Negras, Tibulox, Ágata Verde "Environmental Education and Ecotourism", Serbal Association, Buceo en Cabo de Gata, Mal Caminos "active tourism", Aquatours Almería and La Isla Activa with the aim of

establishing a participated governance for the MPA Contract of Natural Park Cabo de Gata-Níjar. The main result of the territorial laboratories has been the definition of 8 projects for the Cabo de Gata-Níjar Natural Park Action Plan: 3 within the Governance and Management work group; 4 within the Conservation and Environment work group; and 1 within the Economic and Social work group. The objective of the MoU will be outlining a framework for inter-institutional and inter-sectoral collaboration, between administrations and public institutions, social and economic actors, committed to the preservation of an area and the promotion of a sustainable socio-economic development model.





#### 4.2.3 Sinis Peninsula – Mal Di Ventre Island, Italy

Giorgio Massaro

Target area ID

**PARTNER:** Mediterranean Sea and Coast Foundation (MEDSEA)

**LOCATION:** Municipality of Cabras, Oristano, Sardinia, Italy

**MANAGEMENT AUTHORITY:** Municipality of Cabras

**MARINE PROTECTED AREA SURFACE:** 26,703 ha

**ENVIRONMENTAL SCHEMES:** Penisola del Sinis – Isola di Mal di Ventre” MPA has been established in the 1997 by a decree of the Ministry for Environment, Land and Sea Protection. It has been recognized as international importance wetlands by the Ramsar Convention. MPA is also recognized as Special Area of Conservation, according to the “Habitat Directive”, and Special Protection Area, according to the “Birds Directive” for the presence of important nesting sites for marine bird species.

**MAIN FEATURES:** Penisola del Sinis Isola di Mal di Ventre is established on 1997 by a Ministry decree and recognized as a Special protected area (SPAMI) according to the Habitat directive, and Special Protection Area according to the Birds directive. Located in the western centre coast of Sardinia, including the southern part of the Sinis peninsula, Mal di Ventre island and Catalano rock. It is related with a wide wetland system (Cabras and Mistras Lagoons). It is characterized by *Posidonia oceanica* meadows, precoralligenous and coralligenous habitats. Rocky bottoms are colonized by bryozoans (e.g. *Myriapora truncata*) and incrustant sponges, facies of *Cladocora caespitosa* and Cnidaria as *Eunicella singularis*, and *Astroides calycularis*. In deep sites and caves is possible to observe populations of *Corallium rubrum* and colonies of the black coral *Savalia savaglia*. Sinis MPA hosts a fish assemblage, includes species like *Epinephelus marginatus* and *Sciaena umbra*.

On the left: view of the Peninsula Mal Di Ventre.  
Author: Giorgio Massaro



View of the target area.  
Author: Egidio Trainito

The MPA “Penisola del Sinis – Isola di Mal di Ventre” has been established in the 1997 by a decree of the Ministry for Environment, Land and Sea Protection; it is regulated by a Discipline Regulation governing the activities allowed within MPA (adopted on the 11th July 2011 by the Ministry of the Environment, n. 188) and an Implementation and Organization Regulation (adopted on the 28th April 2017 by the Ministry of the Environment, n. 113). There is no specific Management Plan for MPA, but an “Activities and Financial Programme” exists, Ministerial “ISEA” Initiative, act to identify its own management strategy and Conceptual Map (“Penisola del Sinis – Isola di Mal di Ventre” MPA ISEA plan). MEDSEA mapped 57 stakeholders that have authority, influence or interests in the pilot area within the categories of national, regional and local Public Authorities, environmental associations, local educational

centres, research centres and business organizations. The fulfilment of the stakeholder analysis showed that the main stakeholders of the pilot area are represented by fishermen and boaters. However, from a consultation with the management body of the MPA, it turned out that the upon mentioned stakeholders are facing a complex conflict, on which the MPA has already responded organising thematic meetings, aiming at negotiating win-win solutions. For this reason, it has been investigated the opportunity to apply the project testing activities to the local youths of the Municipality of Cabras (aged between 18 and 30 years and representing the 10% of the local community population), grouped in “Youth Municipal Council of Cabras, as main subjects for the definition and implementation of specific commitments on the future of the MPA. The Youth Council of the Municipality of Cabras is one of the participation bodies recognized by the Municipality



Map of the MPA (in blue)

of Cabras (D.C.C. of 29 January 2011, n. 33), in order to allow the effective participation of persons and economic and social actors operating in the municipal territory in the definition of guidelines and implementation programs in the individual areas of intervention in the municipal administration (Art. 72, c. 1 of the municipal statute). The participatory process, started in February 2021, involved the “Youth Municipal Council of Cabras”, together with the representatives of the Municipality of Cabras and of the the “Penisola del Sinis – Isola di Mal di Ventre” MPA. Local public/private research entities operating in the same MPA have been involved too. The participatory process has been greatly impacted by the social distancing imposed by Covid-19 health emergency and territorial labs have been held online via Skype and Zoom platform and in presence at the headquarters of the

MPA in Cabras, applying the Metaplan moderation method”. Territorial labs have been conducted in order to, at first, identify strengths and weaknesses of the MPA area, secondly, identify priorities and expected results, and finally select the main objectives and activities to be included in the MoU. The objectives framed within the MoU are: improving environmental quality; increasing scientific knowledge of the natural heritage; increasing public awareness about the environmental value; improving protection of the most vulnerable beaches; enhance tourist experience in terms of environmental, social and economic sustainability; increasing control on overfishing practices and promoting sustainable fishing techniques; supporting employment opportunities linked to the sustainable use of the area; encouraging higher integration between public institutions, technicians and citizens.





#### 4.2.4 Karaburun Sazan, Albania

*Elvana Ramaj*

*Target area ID*

**PARTNER:** Albanian Ministry of Tourism and Environment

**LOCATION:** Karaburun- Sazan, Vlora city, Albania

**MANAGEMENT AUTHORITY:** Regional Agency for Protected Areas, RAPA Vlore

**MARINE PROTECTED AREA SURFACE:** 12,570.82 ha

**ENVIRONMENTAL SCHEMES:** Marine National Park Karaburun-Sazan was proclaimed on April 28<sup>th</sup> 2010. The total area of MPA Karaburun - Sazan is 12,570.82 ha. Marine area is around Karaburuni Peninsula 9,848.95 ha. Marine area around Sazani island is 2,721.87 ha. According to Birdlife International (2014), the area of Vlora bay, Karaburuni peninsula and Cika mountain is listed as an Important Bird and Biodiversity Area (IBA) for Albania (IBA assessment was done in 2000). About 70 species of water birds have been recorded among which the Dalmatian pelican (*Pelecanus crispus*) and the pygmy cormorant (*Phalacrocorax pygmaeus*).

**MAIN FEATURES:** The Marine Protected Area of Sazan – Karaburuni is located in the Vlora County of south-western Albania. It is home to a vast array of landforms, including mountains, caves, islands, depressions, bays, cliffs, canyons and rocky coasts, all contributing to an exceptionally considerable biological diversity and richness in flora and fauna. The park is home to at least 70 species of mammals, 144 species of birds, 36 species of reptiles and 11 species of amphibians. It also contains a vast array of invertebrates represented with 167 species. The diverse landscapes of the park, with an exceptionally considerable marine and terrestrial life free of any marks of human disturbance, maintain a particular appeal.

On the left: view of the pilot site Sazan Karaburun. Credit: Regional Agency for Protected Areas District of Vlora





View of the target area.  
Credit: Regional Agency  
for Protected Areas  
District of Vlora

The MPA is designated on the sites of Karaburuni Peninsula and Sazani Island being the central element for nature conservation and the city of Vlora and the central element for its development. This marine environment is characterized by many diversified ecosystems and a diverse range of marine species with ecological and economic importance. The Peninsula is situated in the middle of Albania, in front of the city of Vlora, sharing sea waters of Adriatic and Ionian Seas. The rocky coast with, in some places, important calcareous limestone cliffs covered by typical Mediterranean vegetation and locally along the coast, pocket beaches of pebbles and sand represents exceptional scenic quality especially by boat when visiting caves, canyons and small bays, e.g., Haxhi Ali and Duk Gjoni caves. The underwater landscape is also of exceptional quality with cliffs, submarine caves and associated fauna and flora, and in some places archaeological remains.

This area is certainly the best and most impressive part of Albanian coast for the development of nautical activities such as scuba diving which is not well developed in Albania. The island of Sazani (16km long and 3-5km wide), at the north of Karaburuni Peninsula, has an ellipsoid form-oriented NNW-SSE and culminates at 345 m with Gryka e Djallit. Sazani Island separated from the northern tip of the Karaburuni Peninsula by the Mezokanali Strait. This island is a Natural Recreational/Touristic Zone with remarkable cliffs, landscapes and diving areas. Since summer 2015 Sazani Island is opened for public visits as a relict of Cold War and a natural site. Orikumi Lagoon covers around 130 ha with a maximal depth of 3 m and is permanently in communication with the sea by a channel 50 m long. It has a limited input of freshwater southwards. It is located in a restricted military area. Orikumi is an archaeological site of prime importance. The whole area displays the highest biodiversity values



Map of the MPA (in blue)

in the country for its diversity of habitats and its richness in flora and fauna species. Except for wetlands, coastal area is mainly rocky with important calcareous limestone cliffs covered by typical Mediterranean vegetation in some places & locally along the coast, pocket beaches of pebbles and sand. The underwater landscape is of exceptional quality with cliffs, submarine caves and associated fauna and flora, and in some places archaeological remains. The close collaboration including their influence in planning strategies of all involved stakeholders constitutes a major priority for the management of the pilot site, including groups of central government, local government, and regional associations. It is carried out the identification of possible stakeholders involved in the area done through a stakeholder's analysis/mapping. The management of the site is shared between: Ministry of Tourism and Environment, National Agency of Protected Areas, Ministry of

Defence, Ministry of Infrastructure and Energy, National Agency of Tourism, National Spatial Planning Agency, National Coastal Agency, National Urban Planning Inspectorate, National Environment Agency, Inter Institutional Marine Operations Centre. Regarding Regional Administration stakeholders are: Vlora prefecture, Vlora municipality, Orikumi Administrative Unit, Chamber of Commerce and Industry Vlora, Fisheries Management Organization – OMP, Organization of Touristic Operators, Marina of Orikum. Regarding Civil Society Organizations: Organisation for Environmental Education – SEEP, Association for Vlora Bay Protection, Centre for Research, Cooperation and Development – CRCD, Auleda Centre, Human Rights and Environment, Aulona Centre, Aarhus Organisation, Agribusiness, Dukati, Orikum. The MoU will be signed between MoTE, NAPA and RAPA Vlora and will foresee the political and practical will and main focuses for the integrated management of the MPA.





#### 4.2.5 Sečovlje Salina, Slovenia

Aleš Smrekar, Katarina Polajnar Horvat

##### Target area ID

**PARTNER:** Research Centre of the Slovenian Academy of Sciences and Arts (ZRC SAZU)

**LOCATION:** Slovene Istria, Slovenia

**MANAGEMENT AUTHORITY:** SOLINE, Pridelava soli, d. o. o.

**MARINE PROTECTED AREA SURFACE:** 673 ha (673 ha Natura 2000 sites / 100 %)

**INFLUENCE AREA SURFACE:** 758 ha (15 ha Natura 2000 Sites / 2 %) - *Emys orbicularis habitat area*

**ENVIRONMENTAL SCHEMES:** The area of Sečovlje Salina Nature Park has been designated as Ramsar site (no. 586) in 1993. Additionally, it has been protected under Natura 2000, where Habitats Directive (SCI and SAC) protects two sites, Kanal Sv. Jerneja (SI3000239), covering 31.8 ha and Sečovljske soline in estuarij Dragonje (SI3000240) comprising 366.3 ha. Moreover, the area has been protected under Birds Directive (SPA), Sečovljske soline (SI5000018) covering 892 ha.

**MAIN FEATURES:** The Sečovlje Salina Nature Park is located in the south-western part of Slovenia and connects the Adriatic Sea Coast with a flood-plain of Dragonja River. The protected area extends approximately 4 km in NW-SE and 3 km in SW-NE direction, covering around 673 ha. Saltmaking has been the main activity in the area probably from antiquity, yet first written sources about salt-making date back to the 13th. As such, the area has been transformed into a network of canals, dykes, salt fields, barriers, wind and hand pumps and other ethnological, technical and historically important elements. Nowadays, there are two types of salt pans: the Lera area, with modernized salt production and the Fontanigge area, which represents the medieval part of the salt pans. Especially the Lera area has been considered as an important habitat and “stepping stone” between other coastal wetland areas in the southern parts of the Eastern Adriatic coast towards the Gulf of Trieste, Venice Lagoon and towards the northwest.

On the left: view of Sečovlje Salina Nature Park, old salty pans.  
Author: Jure Tigar

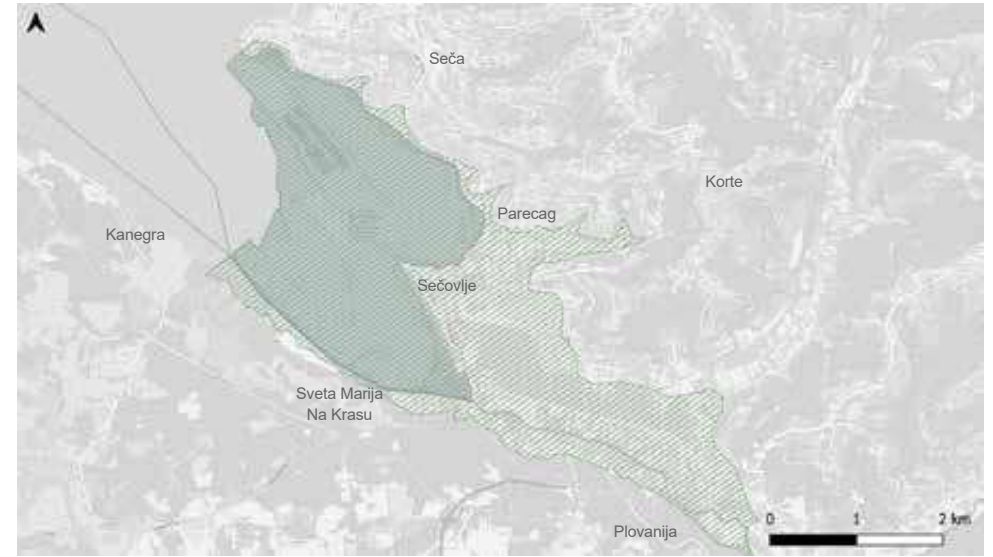




View of the target area  
Author: Iztok Škornik

Sečovlje Salina is one of the most northern active salt pans in the Mediterranean. There are no inhabitants in the protected area. Besides salt production, small private agricultural areas consist of meadows, pastures, fields, orchards and vineyards. Educational and tourist offer is strengthened by the Museum of Salt-making, which, in addition to nature conservation content, is the centre of activities within the park. Due to long-lasting human activity, a typical salt ecosystem has formed. In the nature park, as many as 45 species from the red list of endangered plants thrive along with identified 6 species of amphibians, 9 species of reptiles, more than 300 species of birds and 11 species of mammals. Their greatest abundance is on the areas where human influence is limited; in particular, where the water regime is maintained. The base of salt pans is the estuary of the Dragonja River. With the system of dykes and canals, the man

was able to regulate the water level and transform the natural environment. The Sečovlje salt pans are evaluated as ethnological, technical, historical, settlement and landscape heritage of utmost importance in the national and wider sense. Salt work date back to the 13th century. In the past, the Sečovlje salt pans were of the great strategic and economic importance of the city of Piran. Nowadays, natural processes are reshaping the landscape again, especially in the inactive Fontanigge area. Sečovlje Salina Nature Park was established in 2001 by the Decree on the Sečovlje Nature Park. The Park is located in the southern part of the Municipality of Piran, right next to the border with the Republic of Croatia. Since 2003, the area has been managed by the company SOLINE Pridelava soli d. o. o. with a concession granted. In 2011, a 10-year management plan was prepared by the Decree on the Management Plan of the Sečovlje Salina Nature Park for the period



Map of the MPA (in blue) and influence area (green pattern)

2011–2021. Since 1993, the area has been included in the List of Wetlands of International Importance under the Ramsar Convention. The salt pans together with the Seča peninsula are recognized within Slovenian legislation as an ecologically important area and as a natural value of national importance. Following Directive 2009/147/EC on the conservation of wild birds, the entire Sečovlje Salina with part of the open sea in the Piran Bay was defined as a special protection area (SPA) for 16 bird species by the Decree on Special Protection Areas - Natura 2000 sites. Individual parts within the salt pans following Council Directive 92/43/EEC on the conservation of natural habitats and of wild fauna and flora as special areas of conservation (SCI) for 3 animal species and 6 habitat types. In 2017, with the final ruling of the Arbitration Agreement between the Government of the Republic of Slovenia and the Government of the Republic of Croatia, the boundary of the park was changed.

The newly delineated border runs along the Dragonja riverbed and no longer along its left bank. The area of the park thus decreased by 48.8 ha (6.8%). Approximately 200 potential stakeholders were addressed in the local community and wider (with particular knowledge and interest) through the questionnaire. Further, 64 potential stakeholders participated in the questionnaire and provided answers. According to the response, they were invited to participate in the further River Contract process of preparation of the MPA Contract through three Territorial Labs and two local conferences. This approach was implemented due to the diverse activities and stakeholders' interests in the small coastal cross-border area. Within the three pillars - nature conservation, tourism and agriculture - the groups addressed challenges and sought solutions in the area of the Sečovlje Salina Nature Park and the wider hinterland. Under each pillar,

stakeholders in groups discussed problems, suggested solutions, and highlighted the challenges they identified in the park's area. Altogether 34 stakeholders participated in the Territorial Labs. ZRC-SAZU has boosted a participatory process in October 2020 – March 2021, leading to the subscription of the Memorandum of Understanding (MoU) towards the MPA Contract of Sečovlje Salina Nature Park by 14 key stakeholders on 10. 3. 2021. The main objectives of the MoU are (1) establishment of a network of cooperation between key stakeholders, (2) stable management of agricultural land, (3) regulation of water regime, (4) sustainable management and development, (5) cross-border

coordination and development, (6), good condition of natural habitats, (7) conservation of European Pond turtle, (8), strengthening the value of nature in the protected area, (9) establishment and effective management of brands, (10) valorisation and promotion of natural and cultural heritage, (11) improving transport infrastructure and sustainable mobility and (12) design and promotion of sustainable tourism products. The Memorandum is not regulated by the law, but is rather a voluntary commitment by the signatory bodies. The integration and following of MoU specific goals are foreseen in later successful project proposals, such as Life etc.

## 4.2.6 Albufera de Valencia, Spain

Pablo Vera

Target area ID

**PARTNER:** SEO/BirdLife

**LOCATION:** Province of Valencia, Valencia Region, Spain

**MANAGEMENT AUTHORITY:** Generalitat Valenciana. Department of Agriculture, Rural Development, Climate Emergency and Ecological Transition. General Directorate of Natural environment and environmental assessment

**MARINE PROTECTED AREA SURFACE:** 8,475.24 ha

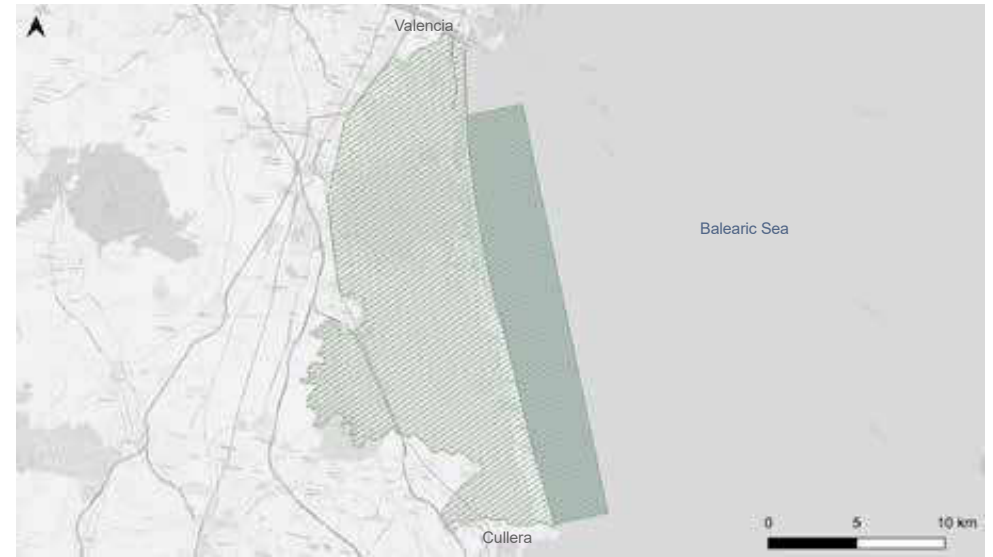
**INFLUENCE AREA SURFACE:** The MPA's area of influence is the Albufera wetland, protected within the same Natura2000 site. The marine area represents 28.94% of the protected area, which has a total area of 29,285.57 ha.

**ENVIRONMENTAL SCHEMES:** The pilot area includes the Albufera wetland and the marine front, as a single space that protects all ecosystems in an integral way. With small variations in the limits, both the SAC (ES0000023) and SPA (ES0000471) figures coincide. In addition to the MPA, the coastline of the Gulf of Valencia is protected as Protected Areas of Fishing Interest (Zone 3), according to Decree 219/1997, of August 12, of the Valencian Government, which declares protected areas of fishing interest.

**MAIN FEATURES:** The marine area extends along 28 km of coastline, and is 3 km wide. The main habitats present are: communities of sands and muddy dendritic bottoms, meadows of *Caulerpa prolifera*, *Caulerpa racemosa*, *Cymodocea nodosa*, and non-vegetated hard substrates. Most of the ancient posidonia meadows are dead and only few isolated bundles survive. This is especially negative since it supposes the habitat of *Pinna nobilis*, as well as places of high production of small fish, mollusks and cephalopods, which are the food of dolphins and of threatened seabirds such as *Puffinus mauretanicus* and *Calonectris diomedea*. The MPA provides food resources to colonies of seagulls and terns breeding on the wetland. Professional fishing is not allowed in the MPA, recreational fishing is allowed but not regulated. The productivity of the area is key to fishing in the buffer area. Leisure activities (i.e. sliding water sports), have a growing relevance in recent years.



View of the target area.  
Credit: SEO/Birdlife



Map of the MPA (in blue) and influence area (green pattern)

The Albufera MPA protects the entire coastline located between the mouth of the Turia and Cabo de Cullera. Due to the influence of the Júcar river and its historical contribution of sediments, this entire coastline has sandy bottoms with very soft slopes that allow the establishment of communities of seaweed and algae. Rocky outcrops are very rare, although they represent small hotspots of biodiversity. The designation as SAC (since 2001) and SPA (since 2009) coincides on this area, due to its values in the conservation of habitats, flora and fauna, especially seabirds. The MPA is recognized as an especially important enclave in action plans for the conservation of seabirds in the region. Due to the importance of the habitats present, it is protected against certain fishing activities that have an impact on the environment, such as trawling, although recreational activities are allowed, including sport fishing. At present, the conservation of its habitats

and fauna are closely related to the existing connectivity with the Albufera wetland through three channels that connect with the Albufera lagoon and through several channels connected to irrigation systems. For this reason, the protected area is defined as a single Natura2000 site, highlighting the need to address a comprehensive management of the protected area. This is one of the few cases in which this situation occurs in Spain, where the designation, planning and management of MPAs is the responsibility of the central government through the ministry responsible for environmental aspects. However, the Generalitat Valenciana proposed to include the marine area within a single protected area with the wetland, by virtue of Law 42/2007, of December 13, on Natural Heritage and Biodiversity, the competence in the declaration and management of the Natura2000 spaces falls to the regional governments.

The governance process began in April 2020 with 51 stakeholders, with a diverse representation of national, regional and local Public Authorities, Sectorial Agencies, as well as environmental, neighbourhood and leisure associations, higher education and research centres and some touristic SME. Due to the health situation generated by Covid-19, the contacts were mainly online. The first phase of the territorial labs consisted in the definition of the trend scenario, allowing at the same time to construct in a participatory way a context analysis that would compile for the first time the existing knowledge about the marine area and define its main threats and impacts. Once this trend scenario was defined and presented to the stakeholder community, the definition of the targeted and preferred scenarios continued. From the beginning, the project has had a high degree of interest and commitment from stakeholders.

After the first round of contacts with stakeholders, there was a general engagement in their involvement in the process. Research institutes and NGO, more implicated in the MPA conservation and used to participate in governance processes, focused on conservation strategies and the need to boost the managing capacities based on conservation evidence. Leisure and sports associations followed up the process with the interest of improving regulation both to reduce their impact on biodiversity and to clarify some regulations about the development of their activities. Public bodies involvement focused on the establishment of regulation of activities through a collaborative and inclusive process. The weakest interest was found in professional fishermen, who do not work in the MPA but in the buffer area, or the artesian fishermen who abandoned their activities. The engagement of all these entities and “community feeling”

built in the starting up process gave a strong relevance to the governance process and helped to include new stakeholders as small neighbourhood associations and local sports clubs. One of the main drivers in the process were the consensus in that collaboration between agents can be improved, since current collaborations occur in an uncoordinated manner. Also, the lack of information and real involvement of the management bodies of the marine area have led to a poor state of conservation, so there is a common will to promote biodiversity and sustainable practices. Also, it was considered by most of the stakeholders that the project is an opportunity to strengthen and improve collaboration networks, and test a governance model that allows stakeholders to work at the same level and in a collaborative way with the regional government as

responsible of the management of the MPA. The main issues identified to work on are the improvement of the knowledge on the conservation status of the MPA are related with overcoming lack of knowledge, management and governance through the improvement of the knowledge on the conservation status of the MPA, improvement of the connectivity between the sea and the wetland, improvement of the water quality monitoring network and alert systems, improvement of the competitiveness of the artisanal fishing sector, definition of a public use plan based on the compatibility of activities and uses and conservation of the marine area, transfer of the results of the Tune Up governance process to the management plan of the Natura2000 network and improvement of coordination and collaboration between stakeholders.

## 4.2.7 Former Saltworks of Camargue, France

Lisa Ernoul

Target area ID

**PARTNER:** Tour du Valat

**LOCATION:** Camargue, France

**MANAGEMENT AUTHORITY:** Conservatoire du Littoral

**MARINE PROTECTED AREA SURFACE:** 6,527 ha

**INFLUENCE AREA SURFACE:** 150,000 ha

**ENVIRONMENTAL SCHEMES:** The site is part of the Camargue Regional Natural Park; it includes the Ramsar site n.346, the UNESCO Biosphere Reserve 1432 and two Natura 2000 sites (SCI FR9301592 and SPA FR9310019)

**MAIN FEATURES:** The site includes 23 habitats of community interest, including 6 priority habitats. It hosts the largest and most diversified sand dune system at the regional scale. 540 plants species are inventoried, including 27 protected species. 312 bird species are inventoried, for 6 of them the site is of international importance. 51 fish species are inventoried in the coastal lagoons including the Critically Endangered European Eel. The site also hosts an important population of Pond Terrapin (*Emys orbicularis*), while other threatened fauna includes the rare dragonfly *Lestes macrostigma*.

The most extensive natural habitats include: Coastal lagoons (3544 ha), Mediterranean halophilous scrubs (660 ha), pioneering annual vegetation with Salicornia and Suaeda (350 ha), sandy and muddy flats (270 ha), dune marshes (61 ha), white dunes and embryonic mobile dunes (63 ha), grey dunes (172 ha), saltmarshes (270 ha), Mediterranean salt steppes with Limonium sp (19 ha). Territorial sea covers 180 ha and mainly includes Sandbanks with low permanent seawater cover Shallow marine bay.





View of the target area.  
Author: Marc Thibault

The Former saltworks of Camargue has a very important landscape value, with natural coastal landscapes (dune massifs, very extensive beaches) and lagoons developed for salt production. Part of the site is characterised by fluvio-lacustrine marshland landscapes. The site includes 23 habitats of community interest, including 6 priority habitats. It hosts the largest and most diversified sand dune system at the regional scale. 540 plants species are inventoried, including 27 protected species. 312 bird species are inventoried, for 6 of them the site is of international importance. 51 fish species are inventoried in the coastal lagoons including the Critically Endangered European Eel. The site also hosts an important population of Pond Terrapins (*Emys orbicularis*), while other threatened fauna includes the rare dragonfly *Lestes macrostigma*. In addition to the biodiversity value, there is also historic castle built during the 17th century

that served as a surveillance and defence tower until 1700. The ruin was recently consolidated and protected to prevent further deterioration. The site also includes Mas de la Bélugue, a traditional farm that is thought to be constructed during the 18th century and hosts traditional bull farming activities. In the immediate vicinity of the site, there is a village of built huts which developed gradually from the late 1950s onwards. A few people, including fishermen, live there all year round. Intensive agricultural activities, particularly rice cultivation, generate pollution (pesticide, nutrients) through drainage networks that threaten aquatic environments. Aquatic environments are also the receptacle of atmospheric pollution from industrial activities and transport on the periphery. The site was heavily developed from the 1950s onwards for salt production and part of the coastline was equipped with dykes and protective groins, resulting in changes



Map of the MPA (in blue) and influence area (green pattern)

to the hydrological regime of the lagoons and the sediment dynamics (hydrological restoration actions have been implemented since 2012). The site is highly exposed to the effects of climate change, in particular the rise in sea level and the decrease in rainfall, the latter affecting the hydroperiods of the wetlands and the freshwater/salt water balance. The site has a tourist value with nature discovery, hiking and cycling, seaside activities. A management notice was developed for the site in 2013 and the objectives for site management were elaborated. The main focus includes: management of coastal sand dunes, restoration of the hydrological and biological functioning of the coastal lagoons, foster breeding colonial waterbirds, restore halophilous scrubs habitats and integrate human uses. A series of participatory events (territorial labs) were held from November 2019 to April 2021 involving various stakeholders, including: the site managers, local authorities,

fishermen, and hunters with the aim of establishing a participative governance for the MPA Contract of the former saltworks of Camargue. The different activities carried out during the territorial labs allowed the various stakeholders to raise their awareness about the site and increase the dialogue between the different actors. During this phase it became evident that new communication actions were necessary in order to find a common vision and management strategy. The preliminary site visits and joint meetings were a first step in this direction, with a consensus on the preferred scenario involving nature-based solutions, the continued re-naturalisation of the site and management of risks related to marine submersion and climate change. Four key stakeholders have signed the MoU which establishes the guidelines and the action plan to develop a formal management plan for the site using the preferred scenario as a guiding line.



#### 4.2.8 Boka Kotorska Bay-Sopot and Dražin vrt, Montenegro

*Dragana Drakulović*

*Target area ID*

**PARTNER:** University of Montenegro-Institute of Marine Biology

**LOCATION:** Boka Kotorska Bay, Montenegro

**MANAGEMENT AUTHORITY:** PE “Morsko Dobro”

**MARINE PROTECTED AREA SURFACE:** 26,543 ha

**ENVIRONMENTAL SCHEMES:** The Bay is about 28 kilometres (17 mi) long with a shoreline extending 107.3 kilometres (66.7 mi). It is surrounded by two massifs of the Dinaric Alps: the Orjen mountains to the west, and the Lovćen mountains to the east. The narrowest section of the bay, the 2,300-metre (7,500 ft) long Verige Strait, is only 340 metres (1,120 ft) wide at its narrowest point. The bay is composed of four smaller broad bays: Herceg Novi and Tivat, which form the outer part, Kotor and Risan bay, which are connected with two straits -Kumborski and Verige. The narrowest section, Verige strait, is only 300 m long, and can be crossed by a ferryboat. The outermost part of the bay is the Bay of Tivat. When it comes to marine biodiversity especially valuable are areas of unique coralligenous assemblies are at Sopot and Dražin vrt. The largest populations of *Savalia savaglia Bertoloni*, species were recorded at these two sites, and a much smaller number was found at Cape Sv. Nedelja and even less near the island of Sv. Đorđe, and in the wider zone of Strp towards Lipci.

**MAIN FEATURES:** The Natural and Culturo-Historical Region of Kotor, comprising the inner, best-preserved part of the Boka Kotorska on the Adriatic coast of Montenegro, was inscribed on the UNESCO World Heritage List in 1979 under cultural criteria (i), (ii), (iii) and (iv). Area of Sopot and Dražin vrt with coralligenous assemblages is at the moment in the process of proclamation for preventive protection. The colonies of *S. savaglia* inside the Boka Kotorska Bay may even be unique in the world in terms of the depth at which they are located and the biocenoses they build. This should be the reason for the organisms that have been present there for centuries to continue their lives unhindered. PE “Morsko Dobro” will be manager of the area. Area Sopot and Dražin vrt will be protected as Special Nature Reserve. There is still no Management Plan.

On the left: view of the pilot site Kotor Risan Bay. Author: Branka Pestorić





View of the target area.  
Author: Slavica Petrović

Boka Kotorska is one of the most renowned stretches of the Montenegrin coast, part of which has been designated as UNESCO's World Heritage Site. The area hosts a rich biodiversity, expressed in a huge variety of landscapes, from the bay itself to the mountains that surround it. When it comes to marine biodiversity especially valuable are areas of unique coralligenous assemblages at Sopot and Dražin vrt. The largest populations of *Savalia savaglia* Bertoloni, species were recorded at these two sites. According to that research, it is assumed that these organisms are among the oldest living organisms on the planet because the age of some colonies is estimated at 2700 years. The colonies inside the Boka Kotorska Bay are certainly very old because the thickness of some of the branches of this coral that is a few centimetres. It should be borne in mind that the colonies of *S. savaglia* inside the Boka Kotorska Bay may even be unique

in the world in terms of the depth at which they are located and the biocenoses they build. Area of Sopot and Dražin vrt with coralligenous assemblages is at the moment in the process of proclamation for preventive protection. Law on Nature Protection (Official Gazette 54/16) prescribe manager of the marine protected areas and that is PE "Morsko Dobro". During process of mapping of 24 stakeholders were mapped and that are: Public body / authority: 13, Regional Body: 1, Local public Body: 1, Organisation/ Association: 3, Private company: 1 and NGO: 5. Institute for Marine Biology Kotor has boosted a participatory process in February and March 2021 involving six stakeholders (Ministry for ecology, spatial planning and urbanism, Nature and Environmental Protection Agency, PE "Morsko Dobro", Administration for Inspection controls, Municipality of Kotor, Maritime Safety Administration, and Port of Kotor). During three territorial



Map of the MPA (in blue)

labs problems in protection of the Kotorsko-Risanski Bay with focus on coralligenous assemblages at area Sopot and Dražin vrt were discussed. All stakeholders welcome the initiative for better cooperation and exchange of information in between stakeholders. Discussions were focused on each element of Trend, Orientated and Preferred scenario. Detailed list of measures and activities are developed and provided within Scenario's template. Institutions agreed that Memorandum of understanding can be good framework for straightening coordination and cooperation of the institutions what is necessary to perform all recognized protection activities. The specific objectives to be

pursued by the MPA MoU are:

- to identify joint activities that are optimal for the potential marine protected area of Sopot and Dražin vrt with the aim of achieving the goals of improving the biodiversity of this area, taking into account the Law on Nature Protection;
- to start and continue a dedicated joint and consultative process, involving all stakeholders through wider involvement and animation for the realization of activities;
- to promote and encourage the definition and implementation of decision-making processes through the involvement of stakeholders in order to develop strategic goals.



#### 4.2.9 Amvrakikos Gulf, Greece

*Christina Kassara, Kallia Spala*

##### *Target area ID*

**PARTNER:** Amvrakikos Gulf – Lefkada Management Agency

**LOCATION:** Regions of Epirus and Etoloakarnania, Greece

**MANAGEMENT AUTHORITY:** Amvrakikos Gulf – Lefkada Management Agency

**MARINE PROTECTED AREA SURFACE:** 60,104 ha; the MPA surface corresponds to the delineated area by the Natura 2000 site GR2110001

**INFLUENCE AREA SURFACE:** 18,033 ha; the influence surface corresponds to the delineated area by the National Park of Amvrakikos Wetlands

**ENVIRONMENTAL SCHEMES:** The pilot site features a marine (gulf) and a coastal (wetlands) area in the northern side, which as of 2017 (Joint Ministerial Decision 50743/2017) are designated as a Special Area of Conservation (SAC: GR2110001). The coastal area is also designated as a Special Protection Area (SPA: GR2110004), a Ramsar wetland (3GR009) and an Important Bird Area (GR081).

**MAIN FEATURES:** The Amvrakikos Gulf protected area is an enclosed gulf, reaching 63m depth, surrounded by nearly 390km of coastline and is part of the National Park of Amvrakikos Wetlands. Its coastal part has been designated as a Nature reserve zone in National Park and as a Special Regulations Zone (other in CDDA database) (Ministerial Decision 11989/2008). Although no zoning system exists to date for the marine part licensing of projects and activities require the opinion of Amvrakikos Gulf-Lefkada management agency. A Management Plan is currently in elaboration according to which a new zoning system with specific regulations will be established for the entire area. The pilot site belongs to several administrative units, namely two regions and six municipalities totalling nearly 136,000 inhabitants (census data of 2011). Various economic sectors depend on the Amvrakikos Gulf protected area (i.e. fisheries, aquaculture, tourism) and its adjoining region to the north (i.e. agriculture, stock breeding, processing units).

On the left: view of Amvrakikos Gulf. Credit: Amvrakikos Gulf, Lefkada Management Agency

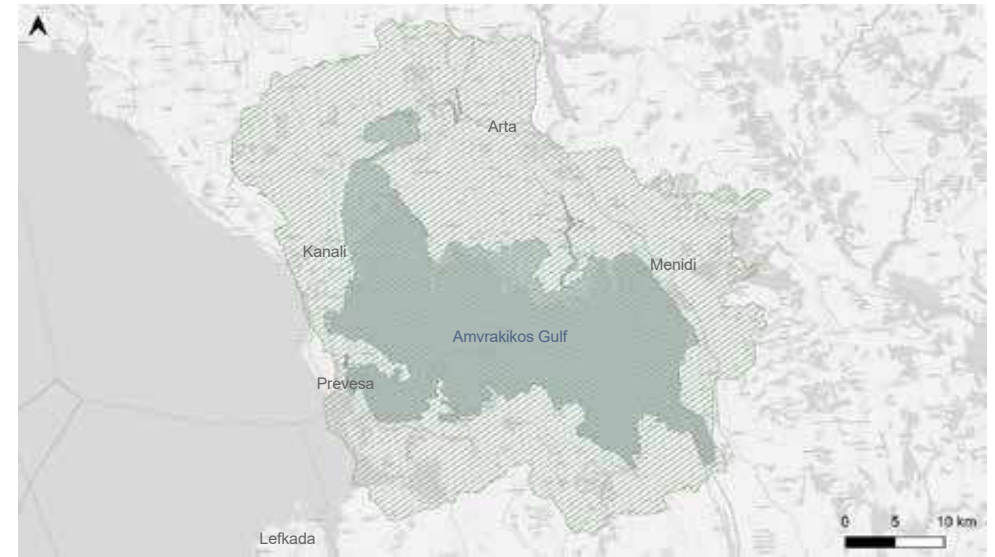




View of the target area.  
Credit: Amvrakikos Gulf,  
Lefkada Management  
Agency

The Amvrakikos Gulf protected area features a mosaic of ecosystems of high ecological value, consisting of an extensive hydrographic network with numerous lagoons, including one of the largest in Greece and in the entire Mediterranean region, and a double delta system, one of the largest complexes in the country, as well as a marine part that includes a few small islands. The northern (coastal) part of the pilot site supports a high biodiversity of conservation concern at European and national level and is a renowned birdwatching place in the country. Moreover, the Amvrakikos Gulf along with its coastal lagoons constitutes also a highly rich ecosystem for fish fauna of both conservational and commercial value. The marine part is an important foraging area for the Loggerhead Turtle and home for an isolated and dense population of Common Bottlenose dolphins. However, further research is required to fully catalogue the

marine biodiversity of the pilot site. Human presence in the area dates to the 7th century BC. The Amvrakikos Gulf harboured two ports for trading goods (fish, agricultural and livestock products) since ancient times as well as shipbuilding facilities in the 18th century. In Roman times methods and techniques for lagoon fisheries, suited to the migratory habits of the fish populations, were developed and are still practiced today. Funded in 31 BC and situated to the west of the pilot site lies the ancient city of Nicopolis, an archaeological site of unique natural beauty that constitutes the largest in area ancient city in the country. Pursuant to the Law 3044/2002, the management of the pilot site falls in the jurisdiction of the Amvrakikos Gulf-Lefkada Management Agency (originally named as Amvrakikos Wetlands Management Agency). Six years later, in 2008, the National Park of Amvrakikos Wetlands is funded (Ministerial Decision 11989/2008). The



Map of the MPA (in  
blue) and influence area  
(green pattern)

Management Agency is supervised by the Greek Ministry of Environment and Energy and aims at the protection, conservation and management of a wider region that was expanded in 2018 (Law 4519/2018). The Amvrakikos Gulf-Lefkada Management Agency originally mapped 53 stakeholders, mainly business support organisations, private business, local and regional public bodies and NGOs, active in the field of fisheries, agriculture and environmental protection. Following an informational event addressed to all stakeholders, the participatory process that took place for the formulation of the local Memorandum of Understanding (MoU) involved three territorial, sector-oriented, labs, in which 24 stakeholders participated. The latter were mainly business support organisations and private business. The territorial labs aimed at arriving at a common agreement about the current state of the Amvrakikos Gulf protected area regarding

its environment, socioeconomic development and governance, as well as about possible lines of action for further improvement. To date, the MoU has been signed by stakeholders pertaining to academic institutions, private business and local public bodies, and its objectives are related to: (a) establishment of an information collection and distribution network on ecosystem protection, socioeconomic development, and governance, (b) creation and promotion of synergies, (c) improvement of knowledge and monitoring of the pilot site, (d) sustainable management and use of resources, including promotion of green entrepreneurship, (e) prevention of environmental degradation, and (f) promotion of citizen science. The main challenges related to the formulation of the local MoU and the future drafting of a MPA Contract involve: (a) lack of a common vision for the area, which is related among others to the scattered knowledge

of the key mechanisms and driving forces leading to the deterioration of the natural environment, (b) the diversity in the profile of stakeholders, including the degree of dependence on a specific economic sector and on the organization of economic activities (e.g. individual, SMEs, cooperatives, large enterprises), and (c) the complexity of the institutional framework, including

the lack of a specialized regulatory tool for contracts. Thus, even though all participants recognized that the current model of management and development is not sustainable and expressed their will to participate in new initiatives, their trust and degree of engagement in bottom-up approaches cannot be ascertained.

#### 4.2.10 Ventotene and Santo Stefano Islands, Italy

*Romina D'Ascanio, Serena Muccitelli, Anna Laura Palazzo*

*Target area ID*

**PARTNER:** Department of Architecture, Roma Tre University

**LOCATION:** Province of Latina, Lazio Region, Italy

**MANAGEMENT AUTHORITY:** Municipality of Ventotene

**MARINE PROTECTED AREA SURFACE:** 2,799 ha

**INFLUENCE AREA SURFACE:** in addition to the MPA, the "Ventotene and Santo Stefano Islands" State Natural Reserve of 174 ha has been considered in the boundaries of the Contract

**ENVIRONMENTAL SCHEMES:** The pilot includes the two islands of Ventotene and Santo Stefano. There are a Marine Protected Area, a State Natural Reserve and 3 Natura2000 sites: SAC IT6000018 "Seabed surrounding the island of Ventotene" and IT6000019 "Seabed surrounding the Island of Santo Stefano", and SPA IT6040019 "Ponza Island, Palmarola, Zannone, Ventotene and Santo Stefano".

**MAIN FEATURES:** The Municipality of Ventotene has about 800 permanent residents and about 5000 visitors in summer. The Marine Protected Area "Islands of Ventotene and Santo Stefano" extends off the coast of about 10 km up to the 100m bathymetry. The MPA is divided into three zones with different degrees of protection: (i) zone A: integral reserve which extends along the southern side of the island of Santo Stefano for about 410 ha and 828 m of coastline; (ii) zone B: general reserve which extends for 1600 ha and 5828 m of coastline and includes most of the western side of the island of Ventotene and (iii) zone C: partial reserve which extends for 789 ha and 3180 m of coast and almost entirely includes the northern side of the island of Ventotene. MPA zoning is currently under review. Concerning the State Natural Reserve, there is still no Management Plan and zoning.



View of the target area.  
Credit: Ventotene and Santo Stefano Islands SNR/MPA

The islands of Ventotene and Santo Stefano are part of the Pontine Archipelago in the province of Latina. The archipelago of volcanic origin is located in the Tyrrhenian Sea and includes two distinct groups of islands that are about 39 km away from each other: the North-West group (Municipality of Ponza): Island of Zannone, Island of Palmarola, Island of Gavi and the South-East group (Municipality of Ventotene): Island of Ventotene and Island of Santo Stefano. The entire archipelago boasts a very complex landscape consisting of high cliffs, submerged caves and rough basalt cliffs interspersed with green promontories that descend towards the sea. Ponza and Ventotene are the only ones inhabited. Santo Stefano was a land of confinement since Roman times. In 1795 the Bourbon prison was inaugurated. It was a place of imprisonment for important exponents of modern Italian history during the Fascism:

Altiero Spinelli, wrote here together with other companions the so-called "Ventotene Manifesto" about the future of Europe. The prison, closed in 1965, was declared a "Property of particularly important interest" by the Ministry of Cultural Heritage in 1987. It was then declared a "National Monument" in 2008 by the President of the Republic's Decree (DPR n.1746 of 18.03.2008). A large regeneration project is underway coordinated by a Government Commissioner Structure. Ventotene is a well-known birdwatching location as the island serves as an essential stopover point for large numbers of migratory birds. The bird observatory is part of PPI (Progetto Piccole Isole), a project which has studied the bird migration across the Mediterranean since 1988 at 46 sites in seven countries. The results of these studies led to the creation of the Ventotene Bird Migration Museum in 2006. The Ministry Decree of 12.12.1997 for the designation of the



Map of the MPA (in blue) and influence area (green pattern)

MPA "Ventotene and S. Stefano Islands" established the General Protected Area Framework and the division of the MPA in the 3 zones. It also established the Municipality of Ventotene as the Management Authority of the MPA "Ventotene and S. Stefano Islands". The Ministry Decree of 11.06.1999 designated the State Natural Reserve "Ventotene and S. Stefano Islands" and defined the main protection levels and proposes. Furthermore, the Ministry Decree n.123 of 18.04.2014 Regolamento di esecuzione e di organizzazione dell'area marina protetta Isole di Ventotene e Santo Stefano (DM 18.04.2014 - GU n.112 16.5.2014) identified the Managing Authority (Municipality of Ventotene), the Head of the MPA and the Reserve Commission. The provisions of these Regulations constitute the conservation measures for the two SAC and the SPA. The partner mapped 69 stakeholders that have authority, influence or interests in the pilot area. They appear

to be equally distributed within the categories of national, regional and local Public Authorities, environmental and cultural associations, local cultural centres and higher education and research centres and a relevant number of touristic SME. This distribution unveils the mainly touristic vocation of the area. Moreover, the participatory process, started in November 2020, involved about 30 participants including delegates and individual, representing organizations of the public and private sectors, stakeholders and citizens, and was divided into information meetings and thematic laboratories. The participatory process and the methodology used have been greatly impacted by (i) social distancing imposed by Covid-19 health emergency and (ii) season during which the process was developed: winter. The objectives framed within the MoU are: (i) collaboration with the MPA Secche di Tor Paterno in order to implement joint research and monitoring activities;

(ii) enhancement of the two protected areas of Ventotene and Santo Stefano; (iii) strengthening the network of local associations and cooperativism among SME; (iv) development of sustainable tourism practices; (v) promotion of research and monitoring

activities in collaboration with local actors (associations, diving, ...); (vi) promotion of environmental education and awareness raising activities and (vii) strengthening of surveillance and control systems.



On the right: Albufera sealife. Credit: samaruedigital.com



**Conclusive remarks**



On the left: fauna in Amvrakikos Gulf. Credit: Amvrakikos Gulf, Lefkada Management Agency

## Recommendations for an effective process

*Stefano Magaudda*

### **Governance model**

In order to have a successful process in terms of governance, some recommendations are needed.

A first group of recommendations concerns the elements that can support the effective and efficient implementation of the Environmental Contract in the long term, starting from its acknowledgement as a flexible, open and continuously updated tool, adaptable to transformations and changes in social and economic conditions and policies. Indeed, the flexibility of the tool and the simplification of administrative procedures it enables should favor the creation of synergies between public and private actors for the implementation of shared priority interventions for the local context.

In a 'magmatic context', such as the one of Marine Protected Areas, where multiple actors act, plans and programs overlap at different levels, it is advisable to use an adaptive governance approach. This approach is based on a continuous supervision and reorientation work performed by the managing board, that also enables the process to better perform and react to the changing conditions of the context. This implies encouraging the debate among different visions, as well as their mutual adaptation and embedding by monitoring the process, and holding the decision-making power necessary to eventually define new objectives and new actions (Gabaglio and Silvestri, 2014).

Moreover, in this kind of contexts, adaptive governance applied to the contractual tool, together with the flexibility of the administrative procedures, allows to adapt strategies and interventions to local needs and to better exploit the opportunities offered by European funding.

Some key principles required to the governance structure in order to apply an adaptive approach are the following:

- To build a flexible condition and make continuous efforts towards adaptation in order to obtain incremental results based on the principle that a good relationship is not a "one-off" effort, but it is a continuous achievement that requires time and considerable interaction (Racinska et al., 2015). In this sense, collaborative governance processes require that the promoter and the governance structure devote resources and people to maintaining good relations with stakeholders throughout the Contract lifetime, thus allowing the two groups – governance structure and stakeholders – evolve together.
- To acknowledge that "one size" does not fit all: therefore Environmental Contract should be characterized by flexibility and should be able to adapt to the structural characteristics of the context, but also to the change produced by the Contract itself

(changing, learning, and adapting to circumstances as they change over time) (Racinska et al. 2015).

- To create, within the governance structure, working groups or dedicated structures capable of managing the flow of information (communication, awareness rising, scientific knowledge) in order to govern and favour the mutual adaptation of participants, the possibility of new stakeholders to join, and finally to knowingly support the negotiation. In this context also local partnerships have the chance to get stronger and thus enhance the role of some “strong” actors, increase the stakeholders responsibilities and develop virtuous and replicable modes of action (Gabaglio and Silvestri, 2014).

It appears therefore that it is essential to manage the process according to adaptive methods, first of all empowering the staff of the promoter and the managing board of the Contract.

### **Promoter and key stakeholders**

The analysis of the processes developed within the framework of the Interreg Med TUNE UP project and the experiences in the literature shows that the identification of a promoter in charge of coordinating the Contract on the territorial scale is fundamental; in fact, this organization has a key role in defining, managing, and monitoring the Contract. Some aspects emerge as key features for ensuring the success and effectiveness of the processes. Firstly, the promoter is an institution with a consolidated experience in governance processes, it will be able to combine in the process a strategic

vision at regional scale and local needs. Secondly, the ability of the promoter to address the measures and funds of European, National and regional programming (eg. EAFRD, ERDF, ESF) in favor of the implementation of the Contract has a direct influence on the effectiveness of the process.

In an effective process, the promoter plays not only the role of coordinator, but also that of negotiator/ mediator and must be legitimized to represent the local needs at institutional discussions at regional or national level. The promoter has the task of elaborating the mapping of the stakeholders, and to verify the availability of the key actors to actively participate in all phases of the process. Among these, it is necessary to involve public bodies from the early stages of the process (preparation phase) and especially those who can be considered, following Dente definition (2011), the gatekeeper, the body that manages the allocation and distribution of funds, that can therefore interrupt the decision-making process with his power to veto, thanks to the resources it controls (Dente, 2011).

The identification and involvement of stakeholders is closely connected to the identification of the area of influence of the Contract (see paragraph 3.1.1). Indeed, environmental and socio-economic problems need to be addressed through a regional approach, which implies going beyond local and administrative limits but also involving all stakeholders that have authority, competence in the specific field or whose interests are somehow related to the target area. In the case of the Environmental Contract in MPAs, such as the ones promoted by the TUNE UP project, the influence area

can be functionally extended at an archipelago, coast and sea scale, or as an island, consequently including in the process the relevant stakeholders (eg non-local fishing groups). The absence or lack of involvement of these actors would make the implementation of the Contract's Action Plan ineffective and not sustainable.

### **Engagement and communication**

Another group of recommendations concerns the participation, communication and relationships among stakeholders to solve some problems that tend to emerge in any participatory process such as: (i) the difficulty of the promoter in transmitting the potential of the process and the expected results (consequently making the tool of the Contract perceive as not very concrete); (ii) the risk that local stakeholders are already heavily solicited by recent participatory initiatives or in progress - an excessive overlapping of processes of this type could in fact compromise the continuing interest of the actors involved; (iii) the costs of participation, in particular for private actors, for whom the time and resources for participatory processes represent a real cost. These issues affect the quality of stakeholders (in terms of number, capacity, influence, and interest) because some of the most relevant actors may self-exclude or participate with a low level of involvement. It is possible to effectively overcome these critical issues through an accurate preliminary analysis regarding participatory experiences and local initiatives already developed in the target area in order to identify any pre-existing conflicts between stakeholders.

On this basis it will therefore be possible to build new relationships based on mutual trust between administrations and stakeholders. Participants in the process need to feel that principles of fairness and justice are applied, and they need to have positive opinions towards the promoting institution: if they perceive the Contract's efforts to be justly and effectively implemented, they will grant legitimacy to the promoter and thus, they may voluntarily collaborate. Legitimacy and accountability are required for effective and inclusive governance (Racinska et al., 2015). Moreover, to ensure the effective involvement of stakeholders and local communities communication must be efficient, continuous, timely, effective, stimulating, and clear (Racinska et al., 2015). It is therefore important to activate a communication strategy from the very beginning of the process. The participation in the process must be considered by stakeholders attractive and useful. Continuous updating of the participants on the results of the laboratories and in general of the activities of the Contract is recommended so that they can perceive and understand the participative sessions' practical results (eg documents / strategies). It is also useful to clarify that the actions to be included in the Action Plan must be implemented in the medium-short term; this can help avoiding that the stakeholders consider the Contract with little seriousness and only as a "wish list", risking a decrease in their involvement during the process. Therefore, it is crucial to keep monitoring the level and quality of the engagement by collecting feedbacks on

the level of efficiency, effectiveness and performance of the process in order to identify critical issues and unexpected factors, and finally indicate any need for reorientation in case of challenging circumstances.

### **Timeframe and financial resources**

The timeframe of the process should be planned according to the local context specificities and criticalities. If the process is too long it may not be effective in relation to the political implications and of the possible lack of continuity in the management and political bodies. It is important to ensure the simplification in the evaluation and approval procedures of the formal Agreement and implementation timing consistent with those of the local administrative/political mandate.

The Italian experience in River Contracts, unlike the French one which is more structured at institutional and administrative level, shows that for about 200 processes launched throughout the country in the last twenty years, only a few dozen have reached the subscription of the Formal Agreement (Dodaro and Battisti, 2019). Some of these Contracts were subscribed only after a very long time from the launch of the process and the long duration of the process finally resulted in the depreciation of the function of the Contract itself, as an arena devoted to the easement of decision-making (Dodaro and Battisti, 2019).

Furthermore, in many cases it was proved that the governance process

was activated in the context of specific funding opportunities offered by EU Programmes or private resources. Therefore, it is important to highlight that, although European Programmes can act as a starter for such governance processes, an administrative system capable of guaranteeing to those processes an ongoing and funded basis should be built.

A final recommendation is to consider in the preparation phase of an Environmental Contract the opportunity to evaluate carefully and in advance the capabilities of the promoter and the other subjects involved, in terms of human resources, of relations with local and institutional stakeholders, and of financial resources that can be mobilized to both manage the governance process and implement the Action Plan. A clear and complete picture of the available economic resources, the financing possibilities and the conditions within which these can be activated under the Contract is in fact essential also to involve stakeholders.

With reference to the work to be done by TUNE UP in developing a Regional Policy Toolkit for each region targeted by Project Partners' work, it is important to anticipate some issues on which National and local public bodies can focus. Ministries and Regions, being the competent administrations, should commit to allocating the proper resources for the activation and implementation of the Environmental Contracts, also to fully exploit the opportunities offered by European policies.

On the right: Sansouires En-fores de la Vignolle. Author: Marc Thibault





## Afterword

*Anna Laura Palazzo*

At the crossroads of three continents, the Mediterranean basin is home to nearly 7% of the population and accounts for 8% of primary energy consumption in the world. By 2040, this condition is expected to further increase, under the double effect of a strong population growth (+ 105 million inhabitants compared to 2013) and economic expansion (+ 2.3% per year).

All coastal countries are committed to compelling climate change and energy transition issues, as well as to environmental issues specific to the Mediterranean basin, acknowledged as a major biodiversity hotspot hosting 15,000 to 25,000 plant species, 60% of which are unique to the region, 1,912 species of amphibians, birds, cartilaginous fishes, endemic freshwater fishes, crabs and crayfish, mammals, dragonflies and reptiles, 19% of which are threatened with extinction (IUCN, 2008).

Despite such shared commitments, several processes are at work that hinder a common vision, such as legal frameworks and jurisdictions of the Mediterranean countries as well as the protagonism of city ports provided with important logistical connections directly negotiating huge advantages with their counterparts. However, the eclipse of institutional networks of a regional governance able to effect the ecological transition within Mediterranean societies, exposes the Natural and Social Capital to high risk.

As wished by influential studies, a shared political and diplomatic Mediterranean-based action could lead the United Nations to formally recognize the Mediterranean basin as an area with a precise identity, homogeneous and interconnected albeit complex and fragmented, whose problems, ambitions and goals are specific to 'macro-regions'. Such acknowledgement would certainly incept more stable cooperation arrangements addressing the main criticalities and shaping a coherent governance road-map, linking flexible institutional planning tools and decision-making, for the years to come.

The main challenges from now to year 2030 concern the extension to 30% of the sea surface protection deemed crucial to perform best connections among the MPAs in view of their effective management.

In coupling economy and environment, the urge to share knowledge, experiences, tools, results and even failures is crucial to promote a Mediterranean Blue Economy transition, as stressed by Plan Bleu (UN Environment/MAP Regional Activity Centre, 2020).

In turn, the Interreg Med TUNE UP project contends that environmental protection should rely upon a twofold approach. On the one hand, protection policies urge for an upscaling including all the MPAs in order to overcome fragmentation in their management and remoteness from decision-making; as a

matter of fact, ecological connectivity is brought about by fish and bird migration routes irrespective of boundaries and human activities. On the other hand, the reasons for environmental protection are to be rooted in human communities, raising awareness both in insiders and outsiders of the values to be preserved and enhanced on the spot.

The MPA Contract stem from previous experience of river contracts, voluntary commitments undertaken by various public and private entities in various capacities interested in environmental restoration and socio-economic regeneration of water systems.

In the TUNE UP pilot areas, the participation process was incepted and performed until the signature of the Memorandum of Understanding. Hopefully, in most cases awareness raising and motivation from stakeholders will be supportive to the forthcoming phase and the Action Plan.

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## **Environmental Contracts in Marine Protected Areas**

This issue of *leNote di U3* is an intermediate output of the project Interreg MED TUNE UP - *Promoting multilevel governance for tuning up biodiversity protection in marine areas*, which faces the need for a strategic and collaborative approach to Mediterranean Marine Protected Areas (MPAs) management and biodiversity protection. The core idea of the project is to exploit the feasibility and flexibility of the Environmental Contract methodology in Med MPAs. This document has been developed in the framework of 'WP4 - Transferring' under the coordination of the Department of Architecture of Roma Tre University and with the contribution of all partners in order to transfer the tested methodology beyond this project partnership. It resumes the main steps and phases faced by the TUNE UP partnership, coordinated by ANATOLIKI SA, in the implementation of 10 MPA Contracts in Mediterranean countries.

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