

## THE MARINE PROTECTED AREA CONTRACT AS A COLLABORATIVE GOVERNANCE TOOL: THE LAZIO REGION CASE STUDY

Romina D’Ascanio<sup>1</sup>, Serena Muccitelli<sup>2</sup>, Carolina Pozzi<sup>3</sup>, Anna Laura Palazzo<sup>4</sup>

<sup>1</sup> Department of Architecture, Roma Tre University, Rome, Italy, [rominadascanio@uniroma3.it](mailto:rominadascanio@uniroma3.it)

<sup>2</sup> Department of Architecture, Roma Tre University, Rome, Italy, [serena.muccitelli@uniroma3.it](mailto:serena.muccitelli@uniroma3.it)

<sup>3</sup> Department of Architecture, Roma Tre University, Rome, Italy, [carolina.pozzi@uniroma3.it](mailto:carolina.pozzi@uniroma3.it)

<sup>4</sup> Department of Architecture, Roma Tre University, Rome, Italy, [annalaura.palazzo@uniroma3.it](mailto:annalaura.palazzo@uniroma3.it)

### Introduction

The Mediterranean basin is considered one of the most important hotspots of biodiversity in the world in terms of the richness of species (many endemic and rare species in need of conservation) and ecosystems. It hosts 1,215 Marine Protected Areas (MPAs) and Other Effective area-based Conservation Measures (OECMs), covering 171,362 sq. km which places a surface of 6.81% under a legal designation. Over 72.77% of the surface covered is located in the Western Mediterranean, 90.05% of the total surface covered by MPAs and OECMs are found in EU waters (MedPan, 2016). To safeguard and secure the well-being of the species and habitats of the Mediterranean basin, 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 proper 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). The Mediterranean is threatened by anthropogenic pressures and climate change and even if it hosts many protected areas, they are not always effective due to the fragmentation of administrative competencies and difficulties in creating networks. Over time networks have been created among MPAs such as MedPan<sup>2</sup> which aims to promote the establishment, the operation, and the sustainability of a Mediterranean network of Marine Protected Areas.

In order to limit conflicts between nature conservation and local development within a framework of sustainability, the project Interreg Med TUNE UP – *Promoting multilevel governance for tuning up biodiversity protection in marine areas*<sup>3</sup> was developed, with the specific objectives (i) to strengthen the synergies and the network of MPAs in the Med area; (ii) strengthen the capacity to adapt and improve the protection measures of coastal and marine ecosystems by involving key stakeholders; (iii) include integrated management of MPAs in national, regional and local territorial development strategies. The project started in November 2019 and finished in June 2022, involving 12 partners under the coordination of Anatoliki, a Greek agency for local development, from 7 Med Countries with the objective to strengthen the effectiveness of Mediterranean MPAs management by promoting the multilevel and multistakeholder governance model of the Environmental Contract applied to marine areas. The project was divided into 3 implementation phases: (i) testing the Environmental Contract tool in 10 MPAs (Fig. 1); (ii) transferring the produced knowledge, methodology, and know-how to

---

<sup>2</sup> <https://medpan.org>

<sup>3</sup> <https://tune-up.interreg-med.eu>

different contexts and to potential stakeholders beyond TUNE UP target areas (in particular to MPAs managers), through exchanging, transferring and training activities and; (iii) capitalizing the MPA Contract experience, mainstreaming and promoting the tested tool at regional and Med level through exchanging, training and lobbying activities.



Figure 1 - TUNE UP Pilot areas: Thermaikos Gulf, Greece (33.779,00 ha); Cabo De Gata Níjar, Spain (49.512,00 ha); Sinis Peninsula – Mal di Ventre Island, Italy (26.703,00 ha); Karaburun Sazan, Albania (12.428,00 ha); Sečovlje Salina, Slovenia (892,00 ha); Albufera de Valencia, Spain (8.475,00 ha); Former Saltworks of Camargue, France (6.800,00 ha); Boka Kotorska Bay- Sopot and Drazin vrt, Montenegro (15.000,00 ha); Amvrakikos Gulf, Greece (60.104,00 ha); Ventotene and Santo Stefano Islands, Italy 2.799,00 ha). Total surface engaged 216.492,00 ha.

The Environmental Contract originated in France in the early eighties to control pollution and flooding, manage hydraulic structures, and raise stakeholder awareness (Bastiani, 2011), and was later replicated in neighbouring countries, including Belgium (Wallonia in 1988) and Italy (Lombardy Region and then the Piedmont Region in early 2000s) (Scaduto, 2016). The Environmental Contract is based on vertical and horizontal subsidiarity and the direct engagement in this process of the management authorities, institutions, and communities is pivotal for its effectiveness (D’Ascanio et al., 2018).

TUNE UP applied the Environmental Contract to MPAs governance for the first time, introducing the MPA Contract as a voluntary tool for the strategic and negotiated planning for the marine protection, and local development based on the participation of local stakeholders (public, private, associations, and community).

This contribution refers to the application of the MPA Contract in the Lazio region promoted by TUNE UP, analysing, on one hand, the testing phase related to the activation of two Marine Protected Area Contract processes in the “Ventotene and Santo Stefano” MPA in Latina Province and “Secche di Tor Paterno” MPA in the Metropolitan City of Rome, and on the other hand the mainstreaming phase related to the integration of the tool in the Regional legal framework.

## Environmental Contracts in Marine Protected Areas

The Joint Methodology developed by TUNE UP for the application of the Environmental Contract in MPAs considers this tool as a flow process composed of three subsequent stages: the Preparatory stage, the Development stage, and the Implementation stage (Palazzo et al., 2021) (Fig. 2).

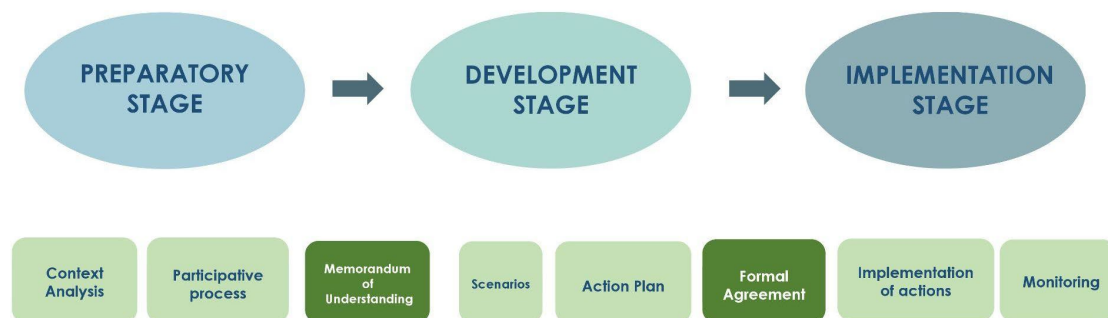


Figure 2 - The Environmental Contract process

The Preparatory stage deals with the Context analysis and the Participatory process. The Context Analysis has to consider: (i) Socio-economic and cultural factors; (ii) Scientific-environmental factors (e.g. habitat and species; environmental heritage); (iii) External drivers of change (e.g. macro trends in the economy; EU and national policies; regional and local regulations; strategies in place in similar areas); (iv) Internal drivers of change (e.g. existing strategies; availability of resources; preferences of residents; status of collaborations among stakeholders and institutions). The Participatory process needs to define criticalities and opportunities for the target area, empower institutions and the community, and build a common view. Then, a first commitment of the process is the Memorandum of Understanding (MoU) which contains the general reasons and the objectives of the Contract, the specific critical issues, the working methodology, and the definition of the governance structure shared between the actors taking part in the process. It is not a mandatory document but it is useful to formalize the commitment to further develop the process. With the MoU the governance structure of the Contract is defined, establishing: (i) the Coordinator, who has the task to rule the overall implementation of the process and promote it to competent public administrations and local stakeholders; (ii) the Management Board, which is composed of public authorities and has political decision-making functions; (iii) the Technical Secretariat, which is the operative body with the task to support the Management Board and the MPA Assembly; (iv) the MPA Assembly, engaging all public and private actors, it can meet in plenary sessions or in the form of thematic and/or territorial laboratories according to the specific needs and phases of the process.

The Development stage is the phase when the intermediate outputs, as well as the final ones, are developed and released. The intermediate output of this stage is the Scenario analysis (Trend, Oriented and Preferred scenarios), useful to define the mid-term implementation strategy of the Contract. The final outputs of the process are the legal-binding Agreement signed by the key stakeholders and the Action Plan, developed according to the objectives that emerged during the process, establishing the priority actions, the roles, and commitment of the signatories, the methods for implementing the actions, as well as the procedures to monitor the implementation.

The last phase consists of the Implementation of the actions and their monitoring.

### Testing the MPA Contract in the Lazio region

The Italian National Table of River Contracts was established in 2007 as a working group for the coordination of Italian Local Agenda 21, with the aim of creating a community able to exchange information and experiences and promote the River Contracts in Italy. In 2010, the objectives and purposes of the River Contracts were summarized for the first time in a policy document called the "National Charter of River Contracts", currently adopted by 18 Regions. After a long work carried out in the territories and through the institutions, in 2015, the legitimation of the River Contracts on a

national scale takes place with the inclusion of article 68 bis in the Consolidated Environmental Act, Legislative Decree 152 of 2006. In 2017, a special National Observatory of River Contracts was established within the Ministry of the Environment, in order to give concrete support to the Regions and River Basin Districts in the dissemination of River Contracts. The establishment of the Observatory serves to promote the harmonization of the River Contracts, placing the Ministry in the role of national reference and guide, with a database to follow its evolution and to know its strengths and weaknesses, favouring exchanges and cooperation between the various Italian experiences.

Lazio Region subscribed the National Charter of River Contracts and in 2016 legally recognized the River Contracts in 2014 (Regional Law n. 17/2016). Furthermore, the new "Special Office for Small Municipalities and River Contracts" was established in 2018, which refers directly to the Presidency of the Lazio Region, and the "Regional Technical Forum on River, Lake, Mouth and Coast Contracts" was established in 2019.

In this context, the Department of Architecture of the Roma Tre University promoted, in coordination with the Municipality of Ventotene, the testing of the MPA Contract in "Ventotene and Santo Stefano Islands" SNR/MPA, and then transferred the tool to the "Secche di Tor Paterno" MPA in the coordination with RomaNatura, leading to the signature of the two Memorandum of Understanding.

### SNR/MPA "Ventotene and Santo Stefano Islands"

The "Islands of Ventotene and Santo Stefano" MPA has an area of 2,799 ha at sea and both islands are part of the State Natural Reserve (SNR) with a surface of 174 ha. The area includes also three Natura 2000 sites (Fig. 3). The management authority of the protected areas is the Municipality of Ventotene. Specifically, 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 a large part of the western side of the island of Ventotene and (iii) zone C: partial reserve which extends for 789 ha and 3180 m of the coast and almost entirely includes the northern side of the island of Ventotene. The zoning of the MPA is currently under review and the SNR is still without a management plan and zoning.

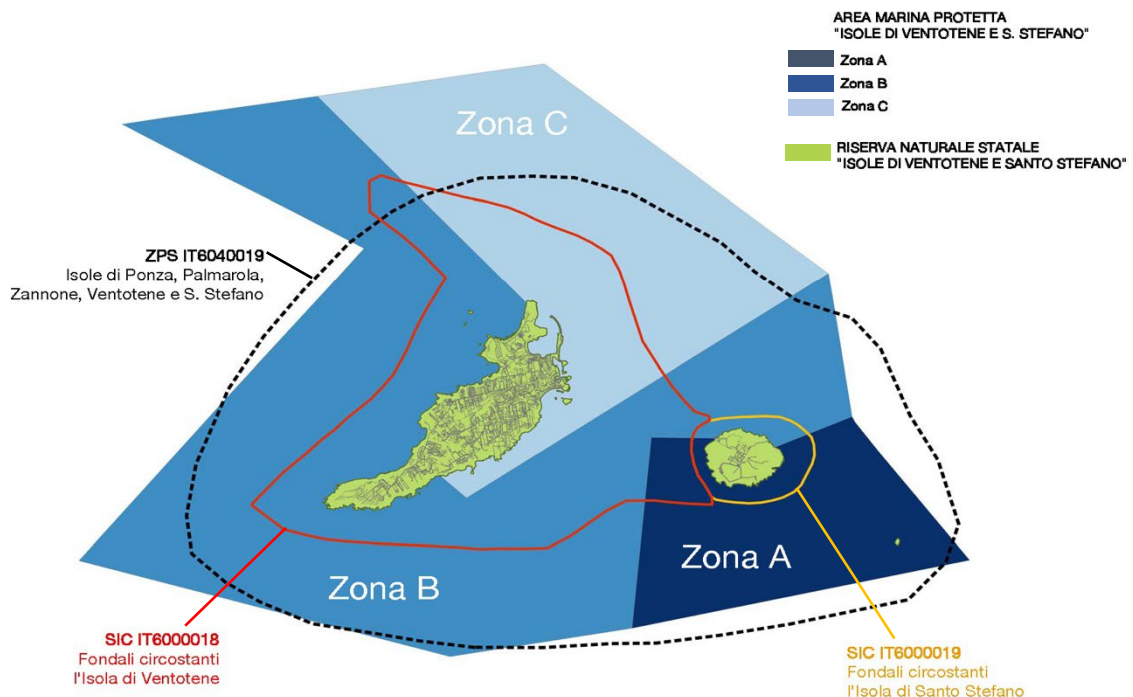


Figure 3 – Natura 2000 protected areas (Special Protection Area and Special Conservation Areas) overlaid on the Zoning of the MPA “Ventotene and S. Stefano Islands” (Source: MPA “Ventotene and S. Stefano Islands”).

The islands of Ventotene and Santo Stefano are part of the Pontine Archipelago in the province of Latina. Ventotene has about 800 residents whose presence decreases to a few hundred during the winter and increases to 5,000 in the summer, while the island of Santo Stefano is completely uninhabited. The latter was a land of confinement since Roman times. In 1795 the Bourbon prison was inaugurated. It became a place of imprisonment for important exponents of modern Italian history during Fascism such as Altiero Spinelli who, together with other comrades, wrote the so-called “Ventotene Manifesto” on the future of Europe. The prison closed in 1965 and was declared a “Property of particular interest” by the Ministry of Cultural Heritage in 1987. It was then declared a “National Monument” in 2008 by a Decree of the President of the Republic and a large coordinated redevelopment project is underway by a Government Commissioner Structure. Ventotene is a well-known bird-watching spot as the island represents an essential stepping zone for a large number of migratory birds. The bird observatory is part of the ISPRA Small Islands Project which has been studying 46 sites of birds’ migration in seven Mediterranean countries since 1988. The results of these studies led to the creation in 2006 of the Ventotene Bird Migration Museum.

TUNE UP launched the Environmental Contract process in November 2020, mapping 69 stakeholders who have competencies, influence, or interests in the pilot area, distributed among national, regional, and local public bodies, environmental and cultural associations, local cultural centres, and higher education and research centres, and a significant number of tourism SMEs. This distribution reveals the predominantly tourist vocation of the area. The participatory process involved around 30 participants including delegates and individuals, representing public and private sector organizations, stakeholders, and citizens, and was divided into information meetings and thematic workshops. Although the actual engagement of the stakeholders in the workshops was strongly influenced by the social distancing imposed by the Covid-19 health emergency and the winter season, the process led to the signature of the MoU in June 2021, that framed objectives shared among the participants: (i) collaboration with the MPA “Secche di Tor Paterno” in order to carry out joint research and monitoring activities; (ii) enhancement of the MPA and SNR; (iii) strengthen the network of local associations and cooperatives among SMEs; (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.

#### MPA “Secche di Tor Paterno”

The “Secche di Tor Paterno” MPA is located in the Municipality of Rome and is managed by RomaNatura - Management Body of Protected Natural Areas of the Municipality of Rome. It has an extension of 1387 ha completely submerged. The MPA coincides with the homonymous Special Area of Conservation (SAC). The importance of the site derives from being the most interesting and conspicuous pool of biodiversity located off the coast of the Tiber River: the area appears as a real island on the seabed that rises in a large “desert” of sand and mud. These are rock formations that extend from a few meters deep up to the bathymetry of 50 meters (about 7 miles from the coast), for a length of just under 2 miles, in the area in front of the coast between Tor Paterno and Villa Campello. “Secche di Tor Paterno” is the only submerged Italian MPA and it doesn’t have different degree of protection (general reserve area - B). From the studies carried out in the protected area up to 2004, about 700 species have been identified, including lobster, sea cicada, seahorse, croaker, and Posidonia (Fig. 4), and others less known, such as some cowries (gastropod molluscs). In addition, there are species that only occasionally visit the MPA, such as bottlenose dolphins.



Figure 4 - The *Posidonia oceanica* meadows can cover the seabed from the surface up to 30 - 40 m depth. (Photo of Stefano Acunto)

TUNE UP launched the participatory process of the Environmental Contract in December 2020, involving national, regional, and local public bodies, environmental and cultural associations, local cultural centres, and higher education and research centres. Both information meetings and thematic workshops took place. The objectives framed within the MoU (signed in July 2021) are: (i) monitoring and strengthening biodiversity protection and conservation practices; (ii) study of mitigation measures to counter the effects of climate change; (iii) strengthening the network of local associations and cooperation among companies; (iv) development of sustainable economic practices (fishing and tourism); (v) promotion of research and monitoring activities in collaboration with local actors (associations, diving ...); (vi) promotion of environmental education and awareness activities; and (vii) strengthening of surveillance and control systems; (viii) monitoring of water pollution by marine litter and microplastics).

### **Mainstreaming the MPA Contract in Lazio region**

Many challenges are awaiting marine ecosystems, EU Biodiversity Strategy 2030 set the goal to reach 30% of the protected sea by 2030 (EC, 2020). This issue requests to strength environmental governance and management through the empowerment of civil society by fostering participatory approaches (Taylor et al., 2021). TUNE UP experiences have highlighted that the Environmental Contract can be a tool for supporting: (i) the drafting, updating, and implementation of Management Plans in protected areas, capable of promoting communities' and stakeholders' engagement and commitment to the implementation of long-term strategies and (ii) the cooperation among MPAs, for effective and efficient governance and conservation (Ernoul et al., 2021).

In this context, the Lazio Region case study can be considered as a good practice for the legal recognition of the value of the Environmental Contracts as a tool for strengthening the collaboration among stakeholders to protect the natural environment while enhancing local development. In fact, one of the achievements of TUNE UP was the commitment of the "Special Office for Small Municipalities and River Contracts" of the Lazio Region, to: (i) recognize the Marine Protected Area Contracts in order to improve the conservation of biodiversity, the supply of ecosystem services and sustainable development; (ii) financially support the processes; (iii) include the Marine Protected Area Contracts in the Regional Law n.17/2016.

## References

- Bastiani, M. (2011). *Contratti di Fiume. Pianificazione strategica e partecipata di bacini idrografici*. Dario Flaccovio Edizioni, Palermo.
- D'Ascanio, R., Andreucci, M.B., Palazzo, A.L., (2018) River management: an opportunity to implement landscape policies. *Healthy landscapes: green, regeneration, safety*. Book of Extended Abstracts
- European Commission, Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions (2020) EU Biodiversity Strategy for 2030. Bringing nature back into our lives, Bruxelles, Belgium.
- Ernoul, L., Vera, P., Gusmaroli, G., Muccitelli, S., Pozzi, C., Magaudda, S., Polajnar Horvat, K., Smrekar, A., Satta, A., Monti, F. (2021). Use of Voluntary environmental contracts for wetland governance in the European Mediterranean region. *Marine and Freshwater Research*. CSIRO Publishing. <https://doi.org/10.1071/MF21109>
- Mazaris, A. D., Kallimanis, A., Gissi, E., Pipitone, C., Danovaro, R., Claudet, J., Rilov, G., Badalamenti, F., Stelzenmüller, V., Thiault, L., Benedetti-Cecchi, L., Goriup, P., Katsanevakis, S., Fraschetti, S. (2019). Threats to marine biodiversity in European protected areas. *Science of the Total Environment*, 677, pp.418-426. <https://doi.org/10.1016/j.scitotenv.2019.04.333>
- MedPAN, UNEP/MAP-RAC/SPA (2016). The 2016 status of Marine Protected Areas in the Mediterranean. Main findings. Brochure MedPAN & UN Environment/MAP - SPA/RAC. [http://d2ouvy59p0dg6k.cloudfront.net/downloads/medpan\\_forum\\_mpa\\_2016\\_brochure\\_a4\\_en\\_web\\_1.pdf](http://d2ouvy59p0dg6k.cloudfront.net/downloads/medpan_forum_mpa_2016_brochure_a4_en_web_1.pdf)
- Palazzo, A. L., Muccitelli, S., D'Ascanio, R., Pozzi, C., and Magaudda, S. (eds) (2021). *Environmental Contracts in Marine Protected Areas: methodology and pilot cases from TUNE UP, leNote di U3*, n. 3, ISSN 1973-9702. [http://www.urbanisticatre.uniroma3.it/dipsu/?page\\_id=7423](http://www.urbanisticatre.uniroma3.it/dipsu/?page_id=7423)
- Scaduto, M. L. (2016). *River contracts and integrated water management in Europe*. UNIPA Springer Series. (Springer International Publishing: Cham, Switzerland.) doi:10.1007/978-3-319-42628-0
- Taylor, N. G., Grillas, P., Al Hreisha, H., Balkız, O. ., Borie, M., Boutron, O., Catita, A., Champagnon, J., Cherif, S., Cıkcık, K., Costa, L. T., Dakki, M., Fois, M., Galewski, T., Galli, A., Georgiadis, N. M., Green, A. J., Hermoso, V., Kapedani, R., Lange, M. A., Mateljak, Z., Osta, M., Papastergiadou, E., Papazoglou, C., Sabater, S., Samraoui, B., Samraoui, F., Bachir, A. S., Tankovic, E., The´venet, M., Troya, A., and Sutherland, W. J. (2021). The future for Mediterranean wetlands: 50 key issues and 50 important conservation research questions. *Regional Environmental Change* 21(2), 33. doi:10.1007/S10113-020-01743-1