

2. Public incentives

MPAs can advocate for greater support for small-scale fisheries, asking public authorities for:

- fiscal incentives
- training and capacity building activities
- renovation of equipment
- preferential access for local small-scale fishermen to (some) fish resources

3. Promotion of multi-purpose fishery-related economy

Fisheries can generate additional income if they provide additional functions/services:

- *Pescaturismo*: hosting tourists during a usual working day at sea
- Ititourism: hosting tourists in traditional fishermen's houses, sharing the daily life of traditional fishermen
- Handicrafts related to fishing and navigation
- Fish cookery classes

4. Quality and sustainability certification schemes

Certification is important both for the quality of halieutic resources (commercial species) and for the sustainability of fishing activity, addressing fishing techniques and the protection of sensitive lifecycle-related areas of identified species.

6 What fishermen can do for MPAs?

A stakeholder analysis demonstrated that fishermen are key actors in the management of SSF, being motivated to work with MPA staff and able to positively influence SSF management practices. As previously highlighted, SSF are successfully managed when fishermen are actively engaged in MPA management practices. Fishermen should constructively interact with MPA management bodies and participate in activities that are crucial to successful SSF management such as enforcement of fisheries rules within MPAs, scientific monitoring (through SSF catch data collection) and promotion of sustainable fisheries initiatives (participating in awareness campaigns and promotion of fish consumption).

7. Ideas for the future

Following an analysis of existing approaches to governance in Europe, as well as looking at examples from other Mediterranean countries and elsewhere in the world, there are various alternatives for improving the governance associating conservation tools (such as MPAs) and sustainable fishing activities developed by artisanal or small-scale fisheries.

Approaches should be adapted to each local situation and more than one tool should be used to address conflict and propose solutions. This facilitates and improves MPA governance and management and brings users, in this case artisanal fishermen, closer to management bodies. The following table provides elements of various approaches or incentives needed to improve the governance of Mediterranean MPAs associated with small-scale fisheries.

Approach	To address conflicts and propose solutions	To improve MPA governance
Economic	Allocation or clarification of fisheries rights in and around MPAs	Complementary funding for MPA management and artisanal fisheries sustainable development
	Sustainable financial resources for enforcement	
	Certification or labeling of marine products from MPAs and market campaigns	
	Promotion of profitable & sustainable fisheries	
Interpretative	Public communication, education and awareness raising	Increase understanding of policy makers on small scale fisheries issues
	Strengthening fishermen organizations	
Knowledge	Promoting recognition of the benefits of MPAs for fisheries to build community support	Acknowledge local community governance initiatives
	Promoting recognition of the benefits of fisheries reserves to biodiversity conservation in order to develop management plans with this dual objective	Develop mechanisms to ensure sharing knowledge with all stakeholders from setting up to managing MPAs
	Promoting the integration of scientific and traditional knowledge and make it available	
	Improving recognition of MPA zoning, objectives and regulations	
Legal	License limits and quotas for fishing (all types)	Clarity of governance structures and mandate of authorities/organizations
	Definition of territorial rights of local fishers (fishing efforts, areas, species, techniques)	Coordination structure between central/regional government systems
	Allow regulations to promote other income activities for artisanal fishing vessels	Improve coherence in legislation for conservation and fisheries
	Strict enforcement of the management plan (technical measures, market traceability, etc.)	Adapt legal framework to enable fishermen engagement in management processes
Participative	Institutionalization of stakeholders, particularly SSF fishermen. Transparent participation	Partnership agreements between fishers and MPA management bodies
	Clear rules on the different groups participation, in particular professional fishermen with a balanced representation of fishing sectors	
	Involve SSF in monitoring and management to improve enforcement and compliance	

8. Would you like to be engaged?

The FishMPABlue project has finished, but the partnership is searching for new funds to develop phase 2 of this process.

In this second step the governance toolkit will be tested in pilot MPAs, with the involvement of local fishermen in fishery management being the first component of such implementation.

The results of pilot testing would be replicated in existing national and international networks, and targeted training and exchange workshops organized to create a store of good practices related to the governance toolkit.

A specific strategy, devoted to policy makers at national and international level, would integrate the concept of involving local fishermen in all the steps related to fisheries and MPA management, starting from the planning phase.

If your MPA/local fishermen's association/local administration is interested in taking part in future activities, please contact the FishMPABlue project partners, as listed below.

PARTNERS

Federparchi - Italian Federation of Parks and Nature Reserves - Federparchi joins over 160 bodies managing national and regional parks, nature reserves, and marine protected areas. Federparchi represents the Italian Protected Areas system and works for the strengthening of the Parks national system. Founded in 1989, it acts as Secretariat of the Italian IUCN Committee, and since 2008, the Italian section of Europarc Federation.

IUCN-Med - International Union for Conservation of Nature - Centre for Mediterranean Cooperation IUCN is the world's oldest and largest environmental organization, with more than 1,200 government and NGO members and almost 11,000 volunteer experts in 160 countries. Founded in 2001, the mission of IUCN Med is to influence and support Mediterranean societies in achieving the conservation, and sustainable use of natural resources. IUCN Med has 194 government and NGO members and more than 1,000 experts and scientists taking part in the six IUCN Commissions.

ECOMERS laboratory (Nice-Sophia Antipolis University, France)

The ECOMERS lab focuses on investigating and assessing: 1) marine ecosystems functioning; 2) sustainability of socio-economic activities at sea (especially artisanal fishery in coastal areas); 3) human impacts on marine ecosystems, along with their recovery.

WWF Mediterranean Programme

WWF has identified the Mediterranean region as a global priority place where ecological integrity must be conserved to contribute to a more secure and sustainable future for all. WWF Mediterranean was established in 1992 to develop conservation programmes in the Mediterranean basin, complementing the work of WWF national organisations in France, Italy, Greece, Spain and Turkey.

FISHMPABLUE

Fishing governance in MPAs: potentialities for Blue Economy
 Funded by: European Territorial Cooperation Programme
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Small scale fishery and marine environment conservation: suggestions for an alliance

Results of the project "Fishing governance in MPAs: potentialities for Blue Economy – FishMPABlue", co-funded by the European Territorial Cooperation Programme "Med" 2007-2013.

WITH THE FINANCIAL SUPPORT OF:



1. The relevance of small scale fisheries

Small-scale fisheries (SSF), also known as artisanal fisheries (AF), are defined by FAO as traditional fisheries involving fishing households, using relatively small amounts of capital and energy, small fishing vessels (usually less than 12 meters), making short fishing trips close to shore and mainly for local consumption. Globally SSF include about 90% of all fishing jobs and are responsible for half of the fish caught for human consumption. Moreover they offer equitable economic and social benefits, and are often considered to have potentially low impact on marine resources. This widespread idea stems from the fact that artisanal fisheries discard little to no fish, can have a reduced impact on benthic communities (due to the adoption of passive gears) and have low fuel consumption.

SSF are an integral part of the Mediterranean Sea where, for centuries, they have played a fundamental role in both the economy and society with considerable cultural and historical significance. SSF have always provided a major food source, with employment and economic benefits for the inhabitants of Mediterranean coastal villages. In the Mediterranean region SSF represent more than 80% of the total vessel fleet. They directly employ more than 137,000 fishermen and provide food for over 464 million people.

Small-scale fishing is a complex activity with various aspects: environmental (the extraction of fishing resources, having an impact on marine ecosystems), economic (income for fishing communities), social (the link between Mediterranean coastal societies and fishing activities), cultural and historical (cultural heritage related to traditional fishing).



82,007

fishing vessels in the Mediterranean Sea



68,131

(i.e. 83% of the total) are small scale fisheries vessels.



248,979

total crew capacity in the Mediterranean Sea (person employed in fisheries)



137,324

(i.e. 55% of the total) are employed in small scale fisheries

2. Looking for Best Practices

We identified the key features (i.e. Best Practices) determining successful management of small-scale fishing within a Marine Protected Area (MPA). By our definition, successful management leads to:

- healthy fish assemblages within an MPA (i.e. having higher density and/or biomass compared to unprotected areas)
- benefits for fishermen (e.g. in terms of increased incomes)
- an overall acceptance of management practices by fishermen

A database was compiled by collecting information from 31 MPAs in 5 Mediterranean countries - Spain, France, Italy, Greece and Croatia (Fig. 1).

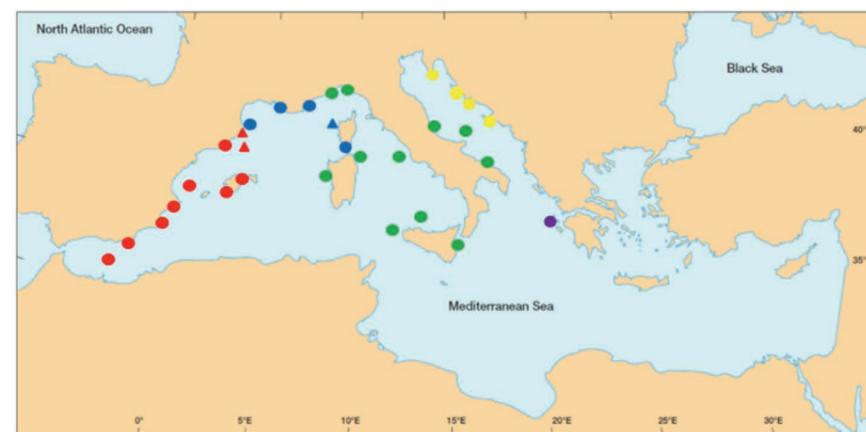


Figure 1. Location of the MPAs considered in the present study. Each color corresponds to a country. Triangles indicate that information on the MPA was gathered as part of a previous project. MPAs were selected from those formally established, with the compulsory criterion that they have a management body. Usually MPAs embed no-take zones into buffer zones, or include one or more no-take zones.

Location of the MPAs considered in the present study. Each color corresponds to a country. Triangles indicate that information on the MPA was gathered as part of a previous project. MPAs were selected from those formally established, with the compulsory criterion that they have a management body. Usually MPAs embed no-take zones into buffer zones, or include one or more no-take zones.

3 Key features for sustainability

We found that the successful management of SSF in MPAs is significantly associated with the following key features:

- enforcing rules in MPAs
- engaging fishermen in management
- representation of fishermen on the management board
- promoting sustainable fishing through specific activities
- existence of an SSF management plan.

These elements can lead to healthy fish assemblages within MPAs, economic benefits for fishermen and an overall acceptance of MPA management practices by fishermen.

4. The framework

An analysis of the legal and institutional framework was carried out in the five countries, focusing on marine conservation and artisanal fisheries in relation to MPAs.

4.1. The legal context

A survey of the different governance models associating marine conservation measures and artisanal fisheries management was carried out at Mediterranean level.

The following sub-types of state governance were identified:

- centralized governance
- state management by a national agency
- state management by a regional / local agency or authority
- state management delegated to other actors

The table below summarizes the results.

Country	Centralized governance	Governance by a state agency	Governance by a regional/ local authority	Delegated management
Croatia	✓		✓	
Italy	✓		✓	✓
France	✓	✓	✓	
Greece	✓	✓	✓	
Spain	✓	✓	✓	

In general, even though the main role in decision making belongs to state actors and to the central authorities, the systems in place in some countries are often complex, including a diversity of governance sub-types. The management of fisheries resources in the north Mediterranean is highly centralized and state-controlled, being implemented within the framework of the EU Common Fisheries Policy (CFP) and regional agreements. Fisheries may be managed by a different Ministry than that implementing coastal and marine issues, or protected areas. Responsibility for coastal and marine protected area management can be divided between various state bodies and is not always clearly assigned; mechanisms of coordination are limited or inexistent.

In addition, there is generally little stakeholder involvement, including fishermen, in the management of MPAs. MPAs are often perceived by fishermen as existing only to restrict and control activities.

4.2. The policy opportunities

Globally, different models exist (see table below) some of which are not highly developed in the Mediterranean region (such as private governance), or are only at the initial stages of development (such as governance by local communities).

Type of governance	Description
By government	Federal or national ministry/agency in charge; sub-national ministry/agency in charge; government-delegated management (e.g. to NGO)
Shared	Collaborative management (various degrees of influence); joint management (pluralist management board; transboundary management (various levels across international borders)
Private	By individual owner; by non-profit organisations (NGOs, universities, cooperatives); by for-profit organisations (individuals or corporate)
By local communities or indigenous peoples	Conserved areas and territories or community conserved areas, declared and run by local communities

Fishermen's associations and cooperatives are local communities which have already shown some interest in assisting in the identification and implementation of MPAs in various countries, including non-European ones. Shared governance approaches through joint management or collaborative management can be a good opportunity for artisanal fishers to participate and make self-regulating decisions regarding the management of stocks as well as benefit from the outcomes. In this context, the recently established Mediterranean Platform of Artisanal Fishers (MedArtNet), with a regional membership and scope, now provides a united and stronger voice for artisanal fisheries to reach regional and national policies.

5. What can MPAs do for the small-scale fishermen?

The involvement of local fishermen in MPA management not only has a positive impact on the conservation of the marine ecosystem but can also generate socioeconomic benefits for the fishermen themselves.

1. "value-chain" approach

The MPA Authority can support/stimulate the creation of a "chain of value", i.e. a system which adds value to the main product of fishing activity. Components of this system can be:

- "zero-km" restaurants (i.e. restaurants using local products)
- factories for fish transformation and packaging
- management structures for the marketing and direct trading of local fish
- "branding" initiatives, such as communication campaigns and public events.