

Improving the effectiveness of Marine Protected Areas in the Balearics

For the purpose of this document, a “marine protected area” is defined by any portion of the marine environment, attached or not to the coast, that has been officially granted some level of protection either by the national, regional/autonomous or island governments (Consells). That protection has to include, at minimum, the prohibition of industrial or semi-industrial fishing (bottom or mid water trawling, purseiners and surface longlining). Traditional artisanal fishing and recreational fishing have to be, at least, regulated in the MPAs.

Introduction

Improving the effectiveness of MPAs is a strategic priority for Marilles Foundation. This goal is shared by many players across the Balearic society, from NGOs and research institutions to representatives from the public and private sector. However, there are different views about how to achieve this goal. This document wants to help develop consensus among any interested parties about what is not working (i.e. the diagnosis) and what to do about it (i.e. the solutions). There is already a wealth of knowledge and experience in the region including

multiple examples of great work and initiatives carried by several players. The preliminary solutions outlined in this document build on many of the ideas and suggestions that people have kindly shared with us over the past two years as part of the research phase that led to the establishment of Marilles. They are not exhaustive or definitive. This document is work in progress and will be modified depending on the reactions and feedback received from stakeholders both by emails and at a series of meetings that we will plan in all the islands.

Diagnosis: Positive change but unfulfilled potential

The Balearics has circa 43% of its interior waters under some form of legal protection. While this undoubtedly has had a positive impact in marine conservation,

increasing fish populations and biodiversity in some areas (Cabrera, Dragonera, El Toro), it falls short of the transformational potential that this could have for the Balearic Sea.

Reasons why marine reserves have not fulfilled their potential:

1. **Ineffective enforcement** and control have allowed higher fishing pressure in MPAs (both professional and recreational) and seagrass degradation. This is due to two main factors: 1) lack of funding to ensure all MPAs have enough staff and boats, 2) poor coordination between existing resources. It is often the case that reported infractions do not lead to any fines or sanctions which in some cases can lead to a bad atmosphere and low levels of morale among the staff.
2. Insufficient **monitoring and research** means we do not have enough information to manage the MPAs properly. The main reason for this is limited funding, but there is also an untapped potential in the form of volunteers (citizens science) which is worth exploring. In order to track progress over the next years it would be critical to agree objectives for each MPAs (a guiding “compass” with economic, social and environmental indicator) and baseline data collection.
3. Limited activity by **reserve management** bodies. Most marine protected areas management committees meet once a year (if at all). There is not a defined role (reserve manager) to ensure proper coordination of resources and flag problems or issues. Similarly, there is no sharing of know-how and experiences across marine reserves.
4. Low levels of **engagement from local actors**. The existence of the marine protected areas is not fully known to residents and tourists and - with some exceptions - its potential as a “local asset” is not exploited. Building local pride around MPAs so that everyone feels more ownership and responsibility towards them is critical to support any actions taken to improve MPA effectiveness.
5. “Cocktail” of **regulations and authorities**. Balearic MPAs have different legal forms (National park, Natural park, Marine reserve, Natura 2000 site) many of which overlap geographically. They are dependent from different authorities (National, regional, island government) different departments within these authorities (i.e. fisheries, environment, etc) and are subject to different regulations (i.e. some reserves allow fishing, others don't, etc). Furthermore, there are up to 6 or 7 different bodies with a mix of enforcement and surveillance roles (Guardia Civil, AMAs, fisheries rangers, IBANAT, Posidonia wardens, fishery inspectors, SEPRONA). All this poses a challenge to effective management, enforcement and monitoring.
6. **Lack of knowledge and public awareness**. There is little knowledge about the existence of the MPAs and about their impact. MPAs are quite

an abstract concept and therefore much more difficult to communicate to the public than more tangible things (i.e. plastic). There is a need to tell the “story of MPAs” describe some of the successes they have had in the Balearics and other inspiring examples from other places.

Solutions

In order to address the current challenges that we face, we propose the following interventions:

1. Define the baseline scenario and performance indicators for all MPAs.

- Agree a set of key objectives for each MPA (incl. environmental economicsocial ones)
- Identify key indicators for each ones.
- Align research and monitoring efforts to generate information and data to track progress.
- Develop citizens-science programmes to provide additional info.

2. Develop an engaging narrative for Balearic MPAs.

- Promote initiatives that make “MPAs” more visible to the public (photography exhibition, events) – this links with point 6.
- Describe MPA successes in the Balearics (biomass increase in El Toro, economic benefits linked to MPAs).
- Tell inspiring stories about MPA successes in other parts of the Med (Medas islands in Catalonia).

3. Build an alliance for MPAs in the Balearics (including unusual suspects).

- Develop a “roadmap for effective MPAs”. Collectively agree on a set of measures and actions with particular attention to more funding.
- Create and use opportunities to fine-tune existing regulations (i.e. reduce spearfishing and recreational fishing pressure, re-define limits of no-take zones areas) and make the most of new ones (i.e. management plans for marine Natura 2000 sites)
- Coordinate policy positions and advocate proposals to the relevant authorities (national, regional, island, local).
- Use the media to build a public profile for the initiative to secure the support and endorsement of multiple players.

Some examples of what the “Roadmap” could say:

- Ring-fence a % of ecotax revenue for MPAs enforcement and monitoring.
- Unify MPA related funding which at the moment is very scattered.
- Increase no-take zone areas...

- Better coordination between the biodiversity and the fisheries departments

4. Pilot-test and implement technology-based solutions for enforcement purposes

There is an increasing amount of data and technology available that could be applied to improve surveillance and enforcement of MPAs. The idea would be to develop pilot projects which could then be replicated to other areas. Some ideas below:

- Pilot to test use of drones (and gliders?) for MPA surveillance. Some rangers have tested this technology, and so has the Consell de Formentera – find out more about their experience.
- Develop a platform to visualize data that might reveal illegal activity as a tool for enforcement authorities. Some examples:
 - Vessel Monitoring System (VMS) is already compulsory in fishing vessels >15m. It should be possible to see if/who fishes in MPAs or at less than 50m depth.
 - Green boxes in artisanal fishing boats will be implemented in circa 240 artisanal fishing boats in the Balearics. Information will not be public but could be helpful for enforcement purposes.
 - GPS gillnet monitoring devices.
 - Electronic tracking for recreational fishing boats (currently optional)
 - Remote control cameras (incl. temperature sensors and/or infrared lights to allow monitoring of night activity) – about to be tested in Es Freus as part of MPA Interreg project.

5. Re-think management bodies and functioning

- Establish an MPA forum to share learning and best practices among all existing MPAs.
- Consider the establishment of an MPA coordinator type of role with a clear mandate to improve the status of the marine reserve.
- Encourage MPAs advisory boards to meet more frequently.
- Organise meetings with enforcement authorities to:
 - a. Share skills, know-how, experiences
 - b. Advance towards better coordination of budget and resources
 - c. Increase staff morale

6. Build local pride for MPAs

- Support the creation of “citizens platform” in existing MPAs to build local pride and a sense of ownership by residents and tourists. The platform would have representatives from residents who want to see

the MPA improve because they see it as an asset to the community/region.

Some ideas about what it might do:

- a. Events, talks, exhibitions that bring the “MPA closer to the people”.
 - b. Promote education and leisure activities in the MPA
 - c. Develop a “trade” label for businesses in the area
 - d. Harness volunteers’ potential to complement MPA monitoring and enforcement efforts.
- The idea would be to test this in one marine reserve first (or one in each island) with a view to learn and then eventually replicate to others; or; even better, inspire the spontaneous creation of new platforms in other MPAs.

7. Work with fishermen, divers, swimmers, etc. to become MPA stewards

Harness the potential of any “users” of the marine protected area such as divers, fishermen (both professional and recreational), boat owners, tourists, local citizens to become more engaged and act as stewards of the MPAs. The development of Citizens Science initiatives such as Observadores del Mar could provide a good entry point to many sectors not just for MPAs stewardship but also to address many other issues (plastics, invasive species, etc).

Note: The engagement of professional fishermen re: improving the effectiveness of MPAs is critical. We believe it is better to start a separate conversation to deal with this issue. Another background paper similar to this one will be developed by Marilles under its strategic priority: reducing the impact of artisanal fishermen. Some initial ideas about interventions in this area include:

- Co-developing a marine stewardship programme
- Incentives for the adoption of low-impact gear and co-management plans
- Develop a “Reserve fish” label to add value to the catch and reduce illegal sales

ANNEX

Advisory Commission for Marine Reserves

Every marine reserve is monitored by an advisory commission formed by different organisms and entities, such as representatives of different public administrations, fisheries brotherhoods (confraries), recreational fishers' associations, nautical clubs, conservation NGOs, scientific institutions....). The entities give their opinions about the management of the reserves, make proposals and suggestions to the managers, and at the same time report to the different social sectors over the state of the marine reserves and their functioning. They meet once a year, although some of them have not met for a long time.

Overview of surveillance and enforcement bodies

In 2010 there were 30 officers working on surveillance (16 fisheries rangers and about 12 from AMA and IBANAT) to cover circa 80,000 Ha of MPAs. All these are linked to different departments of the Balearic Government. By 2015 this had gone down to 10. In addition to this there are circa 10-12 staff from Guardia Civil and Seprona. So probably a total of around 40 in 2010, down to 20 in 2015. These numbers seem to have recovered in 2017 and likely to increase in 2018.

Guardia Civil (Central government)

Guardia Civil del Mar mainly deals with drugs, immigration, smuggling but sometimes they do MPAs and fisheries control based on an agreement with Balearic Government. SEPRONA is also present. It's hard to estimate full-time equivalents for both bodies.

AMAs Agentes del Medio Ambiente (Balearic Government - Natural parks)

Civil servants who act as "authority representatives" of the Balearic government; their word prevails. Mainly in National Park and Natural parks. Not in marine reserves.

4 AMAs, number might increase in the future.

Fisheries rangers - Guardapesques maritims (Balearic government - Marine reserves)

No civil servants or authority agents. Contracted by Tragsatec or other public company. They "depend from" Fisheries dept in the Balearic Gov. Present in Marine reserves (or Natural Parks if there is overlap)

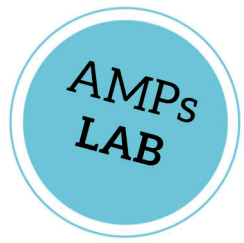
14 fisheries rangers in 2017 could be up to 21 in 2018

8 patrol boats in 2017 could be up to 13 boats in 2018

Ibanat agents

Depend from Biodiversity (Balearic Gov). Mainly on land

4 appointed to national-natural parks in 2017



Fishery inspectors

They depend from Fisheries (Balearic Gov)

Mainly on land, keeping an eye on landings and sales. 3-4 in all islands

Posidonia agents

Depend from Biodiversity (Balearic Gov)

Newly created to inform boats and issue citations if boats ignore requests to move.

11 agents in 2017 with 11 rigid inflatables. Most (all) of them in Eivissa and Formentera.

Number expected to grow in 2018 to 16 agents.