

ENABLING EFFECTIVE AND EQUITABLE MARINE PROTECTED AREAS:

guidance on combining
governance approaches

Case Study Compendium



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Introduction

This technical appendix provides a compendium of the 34 case study summaries that form the evidence base for the main volume: UN Environment (2019) *Enabling Effective and Equitable Marine Protected Areas – guidance on combining governance approaches*. Authors - Jones PJS, Murray RH and Vestergaard O.

These summaries are based on the 'Marine Protected Area Governance (MPAG)' framework, which is set out in the section after the glossary, and defines all the incentives used, as well as providing further guidance on how these summaries are populated. More information on the rationale behind the MPAG governance approach is provided in Jones PJS (2014) *Governing Marine Protected Areas: resilience through diversity*. Routledge.

More details on the MPA Governance project are at:

- <https://www.unenvironment.org/resources/marine-protected-area-governance>
- <https://www.ucl.ac.uk/marine-protected-area-governance/>

Glossary

All definitions after Jones (2014)¹ other than where other specific source cited. Italicised words in definitions are also separately defined in this glossary.

Actors

People involved in a given MPA governance initiative, including local users, representatives of governmental and non-governmental organisations, etc.

Basic conflicts

Conflicts based on differences between utilitarian values, focused on exploiting marine resources, and ecocentric-preservationist values, focused on conserving ecosystem health and setting areas aside from direct human uses, often revealed in the context of MPAs between those actors focused more on utilitarian objectives (using resources) and those focused more on conservation objectives (protecting biodiversity).

Biodiversity

The diversity of different ecosystems, habitats and species, including genetic diversity amongst different populations of a given species.

Conservation objective

An objective that is focused on protecting biodiversity and/or related natural resources from the direct and indirect impacts of human activities and related driving forces (also see operational objective). Effectiveness is focused on the degree and extent to which the impacts of users that can undermine the fulfilment of conservation objectives are reduced, and do not take account of operational objectives as these are considered in the MPAG framework in terms of incentives ('the means' by which effectiveness in achieving conservation objectives is reached).

Decentralisation

The transfer of authority from central government to lower-level government levels, quasi-independent government organisations, NGOs or the private sector, degrees and forms of autonomy ranging from deconcentration, to delegation, to devolution.²

Driving forces

The factors that can promote activities by users that can undermine effectiveness, such as increasing human populations, both from local population growth and inward migration, increasing demands from globalised fish and tourism markets, and the increasing aspirations of people to improve their living standards beyond subsistence livelihoods.

¹ Jones, P.J.S. (2014) *Governing Marine Protected Areas: resilience through diversity*. Routledge. Use discount code DC361 for 20% discount at [Routledge](#).

² Rondinelli, D. (2000) What is decentralization? pp2-5 in J. Litvack and J. Seddon (eds) *Decentralization Briefing Notes*, World Bank Institute in collaboration with PREM network, Washington DC; Oxhorn, P. (2004) Unraveling the puzzle of decentralization, pp3-32 in P Oxhorn, JS Tulchin and AD Selee (eds) *Decentralization, Democratic Governance, and Civil Society in Comparative Perspective: Africa, Asia, and Latin America*, John Hopkins University Press, Baltimore

Ecosystem health

A measure of the structural and functional integrity, biological diversity and resilience of marine ecosystems coupled with their capacity to provide sustainable flows of ecosystem services.

Ecosystem services

'The direct and indirect use benefits people obtain from ecosystems'³, such as food provision, nutrient recycling, climate regulation and shoreline protection.

Effectiveness

The degree to which an MPA's conservation objectives have been achieved and related obligations fulfilled, through the control of impacts, involving restrictions on the activities of users to which an MPA's species, habitats and ecosystems are sensitive. See next section for details.

Equity

The fair distribution of costs (related to restrictions on users) and benefits (related to the achievement of conservation objectives) arising from MPAs, including recognition of the importance of local cultures and ways of life, and the rights of local people to participate in decision-making processes that affect them.

Governance

Steering human behaviour through combinations of state, market and civil society approaches in order to achieve strategic objectives.

Incentives

A particular institution that is instrumentally designed in relation to an MPA to encourage actors to choose to behave in a manner that provides for certain strategic policy outcomes, particularly conservation objectives, to be achieved.

Institutions

Prescriptions that humans use to organize all forms of repetitive and structured interactions, including those within families, neighborhoods, markets, firms, sports leagues, churches, private associations, and governments at all scales.⁴

Management

The day-to-day control of users and their activities, including related technical and administrative approaches (see governance).

No-take

Marine areas designated for the conservation and restoration of their ecosystems, where all fishing activities are permanently banned, as are all other activities that involve the removal of living and non-living resources, e.g. recreational angling, shellfish collection, sand extraction. Can apply to a no-take MPA or a no-take zone (NTZ) (also see partially protected).

³ Beaumont, N.J. et al. (2007) 'Identification, definition and quantification of goods and services provided by marine biodiversity: implications for the ecosystem approach', *Marine Pollution Bulletin*, vol 54, pp253-265

⁴ Ostrom, E. (1995) *Understanding institutional diversity*, Princeton University Press, Princeton, New Jersey. p3

Operational objective

An objective focused on 'the means' by which conservation objectives ('the ends') are achieved, e.g. promoting the participation of local people, promoting awareness. These are considered in more detail in terms of incentives in this analysis, but such objectives are often explicitly stated as applying to many MPAs, so they are also listed as operational objectives in this analysis, recognising that such objective are considered in greater detail in later analyses of incentives.

Partially protected

Marine areas designated for the conservation and restoration of particular habitats and/or species, in which some activities that are compatible with such objectives are allowed, on the basis that they do not significantly impact the particular habitats, species, or ecosystems. Such activities include recreational angling and commercial fishing with static gears (traps, pots, set nets, etc.) and pelagic trawls (towed through the water column, but not usually across the seabed). Can apply to an entire MPA or to a zone or zones of an MPA (also see no-take).

Resilience

A measure of the persistence of systems and of their ability to absorb change and disturbance and still maintain the same relationships between populations or state variables.⁵

Social capital

A measure of the degree to which actors reach and implement decisions together through their professional and social networks, placing trust in one other, and having confidence that their cooperation with measures to achieve agreed collective objectives will be reciprocated by other actors.

Stakeholders

People who have a stake in a given MPA as they are direct or indirect users and thereby benefit from ecosystem services. This is generally confined to users, but some definitions are more akin to actors in that they include representatives of state organisations, NGOs, etc., whilst others include wider members of wider society who may gain more distant indirect benefits, sometimes even extending to future generations. Due to the ambiguity of this term, it is only used where appropriate to the case study context.

State capacity

The potential of the national government and related state agencies to govern the activities of the country's people and address their related interests. Based on the World Bank's Worldwide Governance Indicators (WGI) project, which is particularly focused on six dimensions of governance – voice and accountability; political stability and absence of violence; government effectiveness; regulatory quality; rule of law; control of corruption. Calculated by taking the average of the six scores (-2.5 to +2.5) and of the six percentile rankings assigned for that country in which the MPA is located. The 'country profiles' from which these scores and rankings are derived can be accessed at www.govindicators.org

⁵ Holling, C.S. (1973) 'Resilience and stability of ecological systems', *Annual Review of Ecology and Systematics*, vol 4, pp1-23

Users

People who use an MPA on a direct basis, by extracting natural resources, or on an indirect basis, through non-extractive recreational activities, aesthetic appreciation, etc.. For the purposes of this study, users are confined to those who live in the locality of the MPA or who often visit it for direct and indirect uses, i.e. it excludes people in wider society who may gain more distant indirect benefits. Representatives of state organisations are not considered as users.

30. Ustica Island MPA, Italy - Katie Hogg, Pedro Noguera-Méndez and Maria Semitiel-García, PhD research (2013)

Name	Ustica Island (UIMPA), Sicily, Italy	Year of designation	1986
Area	159KM ²	State Capacity	0.49 (rank 67.5%, 2016)
GDP per capita	US\$29,600	Human Development Index (HDI)	0.872
GDP Growth Rate	-1.8%	Population below the poverty line	29.9%

MPA Objectives:

Conservation	Operational
Protect the marine environment	Carry out investigation and scientific research in the fields of ecology, marine biology and environmental protection, to ensure systematic knowledge of the site
Protect and enhance biological resources and repopulation of the area	Spread and disseminate knowledge of marine coastal areas
	Carry out educational programs to improve knowledge of ecology and marine biology

Drivers and Conflicts:

- There are zoned areas to restrict and manage certain types of fishing in each zone. Changes in EU legislation for tuna and swordfish have resulted in larger artisanal boats being used for inshore artisanal fishing, rendering the fleet's activities economically unsustainable. Recreational fishing is allowed in zones B&C with gear and catch restrictions, but retired fishermen continue to fish and sell their catch illegally in the local fish market. Strong cultural tradition is allowing this to continue as the norm, despite the negative consequences for licenced commercial fishermen: such illegal catching and selling has rapidly reduced stocks and impacted market prices for fish. New laws are being pursued to manage this better.
- Tourism is very small scale and limited. Recently the areas accessible to tourists were expanded as they were seen to pose very low threat to the environment. However, extensive signage and outreach campaigns have also been developed to ensure that visitors are more environmentally responsible.

Governance Framework/Approach:

Decentralised - The MPA is led by the government with significant decentralised responsibilities to Ustica Municipality and daily management with the UIMPA Management Authority. The Management Authority does not have the power to enforce regulations and is reliant on the coast guard to follow up on transgressors. An advisory committee supports decision-making processes. For a time (2003-2013) the MPA returned to being fully government-led, being handed back to the municipality in 2013. There is a combination of patrolling methods using cameras, the coast guard, MPA staff, dive centres and local fishers. A lack of funding is, however, providing some serious management challenge as local residents expect the same economic returns as in past years. The success is greatly determined by local political will and economic development priorities, in particular the mayor's personal interest in the MPA and conservation issues.

Effectiveness: 2 - *Some impacts partly addressed but some impacts not yet addressed.* The impacts of illegal commercial angling coupled with the recent growth of commercial artisanal fishing and, to a lesser degree, of tourism continue to challenge the effectiveness of this MPA. It is difficult to objectively assess the effectiveness of the MPA given that no data has been collected for over 10 years.

Incentives (Y= used; Y*= Used but particularly in need of strengthening; N= Not used; N*= Not used but particularly in need of introducing; only used, needed and not used/needed but notable incentives for a given case study are listed in these tables)

Economic

Incentive type	Used	How/Why
4. Promoting profitable and sustainable fishing and tourism	Y*	Only the locals fish in the area around the MPA which is far from mainland Sicily so does not attract outside fishing pressure. Big trawlers are not allowed in the MPA and there is high promotion of good fishing practices with the landing of certain species banned and some fishing gears also restricted, but the recent growth of artisanal fishers displaced by new EU restrictions on swordfish and tuna fishing coupled with illegal commercial angling continues to pose challenges.
5. Promoting green marketing	N*	More effort needs to be made to promote the produce of the island and respect traditions. Some agricultural producers are promoting the slow food movement through their production of wines and olive oils. It was suggested that these same principles could be applied to the fishing industry in combination with restaurants. This may also offer an incentive for retired fishers to be more respectful of the regulations and restaurants more considerate regarding from who they buy their produce.
6. Promoting diversified and supplementary livelihoods	Y	Pesca-tourism is promoted as an alternative livelihood to commercial fishing and illegal angling, although the profit margins are not as high for fishermen and also the logistics of taking tourist on fishing boats is often a deterrent.
9. Provision of state funding	Y	Funds for the MPA are allocated by the state, though this has decreased in recent year with economic decline and austerity measures.

Communication

11. Raising awareness	Y	Signage and flyers with strong conservation message are used alongside guided tours, school programmes, a visitor centre, website and public meetings have been introduced in the last few years.
12. Promoting recognition of benefits	Y	The benefits of the MPA are communicate through the channels noted above.
Promoting recognition of regulations and restrictions	Y	The rules and regulations of the MPA are communicate through the channels noted above.

Knowledge

14. Promoting collective learning	N*	In the past the MPA was very well funded and was very attractive to researchers. As more MPAs were introduced researchers began to go elsewhere. During the period of 10 years when the MPA was under government control , the infrastructure became run down and was not used. There have been no studies in the area for almost 10 years. It is recommended that researchers and locals work together to recreate the history of the MPA and undertake collective research on trends in fish populations, habitats, etc.
15. Agreeing approaches for addressing uncertainty	Y	There is acknowledgment that there is not enough information but agreements have been reached to proceed in the face of uncertainty. There is no formal process, but there is awareness of the challenge of uncertainty and this is being built upon continually.
16. Independent advice and arbitration	N	Evolving processes on how to address uncertainty in decision-making could benefit from independent advice and arbitration on knowledge issues, but this is not considered a priority

Legal

17. Hierarchical obligations	Y	This MPA is included in the Natura 2000 Network as a SCI under the Habitats Directive and is also part of the MedPan Network, all of which carries obligations that have to be met.
18. Capacity for enforcement	N*	The MPA staff have no jurisdictional power to enforce the regulations. If they catch transgressors, they are only able to tell them that the area is protected and their activities are not permitted. They are reliant on the Coast Guards to enforce the regulations. However, the MPA staff suggested that the MPA staff are less influenced by local politics and therefore could enforce the MPA more equitably. The park staff were very aware of the system in France (where park staff have police status) and saw this as one of the most beneficial moves for their MPA. A request to position cameras in the port was declined by the local Mayor.
19. Penalties for deterrence	Y	Fines and are used within the legal framework, but they are not often applied and there is a lack of will to impose the fines.
20. Protection from incoming users	Y	This is included within the legal framework which protects from larger boats specifically under the legislation, plus the distance from any other land offers increased protection as it's a long way for smaller boats to travel.
22. Cross-jurisdictional coordination	Y*	There needs to be stronger cross-jurisdictional support to improve effectiveness, particularly between the MPA authorities on the island and the Coast Guard
23. Clear and consistent legal definitions	Y	All legal definitions are contained within the government law and under specific zonation plans which is regulated by the management authority.
25. Legal adjudication platforms	Y	The judiciary manages all adjudication through recognised legal channels and platforms for appeals.

Participation

28. Establishing collaborative platforms	Y	An advisory committee supports the decision-making process with input from a variety of user and interest groups.
29. Neutral facilitation	N	The municipality of Ustica is not familiar with participatory processes and there are few trained and experienced persons to adopt a facilitation role
30. Independent arbitration panels	N*	Ustica island is small and strongly influenced by 'local' needs, therefore independent advice and arbitration, free from local politics and with the capacity to build participatory decision-making, is required to ensure the plans for the MPA move forward.
31. Decentralising responsibilities	Y	The Ustica Municipality is responsible for the MPA and the daily management is undertaken by the AIMPA Management Authority
32. Peer enforcement	N*	As a very small Island- peer enforcement systems could be very effective. There is a strong sense of pride in the Island's heritage and culture. This could be promoted through a volunteer warden scheme to ensure that the Island is being respected by all individuals and tourists. It could also help overcome the issue with retired fishers if they understood the negative impact they were having on legitimate commercial fishers.
33. Building trust and the capacity for cooperation	Y	Coast Guards, MPA staff, dive centres and local fishermen are involved in 'patrolling and monitoring' as the management of the MPA was entrusted to the USTICA Municipality building local trust and cooperation
34. Building linkages between relevant authorities and user representatives	N	Attempts are being made to build partnerships with key community groups, research institutes and local industries after a long period of national government management, to re-build key strategic linkages.
35. Building on local customs	N	Local cultural norms related to fishers are arguably an issue as they promote acceptance of illegal commercial angling by retired fishers

Cross-cutting themes:*Leadership*

Within the community there are several strong advocates for the MPA, though there is no clear leadership. The lack of leadership from the central government during the 10-year period under Coast Guard management has had a huge influence on the governance of UIMPA. It has resulted in a lack of local financial and institutional resources, destruction of MPA infrastructure, MPA 'visibility' and support from local community;

Equity

Lack of enforcement capacity leaves the MPA vulnerable to influences from local politics and clientelism. Islander privileges and cultural traditions often override enforcement and deterrence needs

Stewardship

This has been greatly affected by the 10-year gap in management. Community sense of stewardship is good, but in the past the MPA had brought more benefits to the community, and given the current economic climate it is unlikely to provide the same benefits as it did in the past.