



2020 TOP 100 GOOD PRACTICE STORY

Title of the Story: Avencas Marine Protected Area: The bottom-up management approach

Destination Name: *(include any state, province or region)*

Cascais

Country: Portugal

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Nomination Category: *(Please check the boxes that indicate the focus of your story)*

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*The Sustainable Development Goals (SDGs), also known as the Global Goals, were adopted by all United Nations Member States in 2015 as a universal call to action to end poverty, protect the planet and ensure that all people enjoy peace and prosperity by 2030. The 17 SDGs are integrated—that is, they recognize that action in one area will affect outcomes in others, and that development must balance social, economic and environmental sustainability. What are the Sustainable Development Goals? <https://www.undp.org/content/undp/en/home/sustainable-development-goals.html>

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Issues faced

The classification and management of coastal marine protected areas is traditionally implemented without a strong public participation process in its early stage, resulting in conflicts and lack of compliance with the existing regulation, negatively impacting the marine biodiversity of these rich areas. A bottom-up approach with public participation before defining regulations is an innovative, yet difficult process.

In Portugal there are "Coastal Zone Management Plans" (POOC) that operate at a regional level and define the several constrictions of land use and the environmentally sensitive areas. These management plans also define the "carrying capacity" of the beaches present in the coastal zone, in order to calculate the maximum number of visitors that allow a sustainable use of the beach without compromising its nature (POOC, 1998). The first coastal zone management plan to be implemented was located in the southern coast of Cascais (POOC Cidadela e São Julião da Barra) in 1998, and it included a unique marine protected area, Avencas Biophysical Interest Zone (Zona de Interesse Biofísico das Avencas - ZIBA). Even though this marine protected area was defined as a "no fishing zone" in the aforementioned plan, the lack of information for visitors and/or lack of compliance from the recreational fishing' community were hampering the conservation objectives of the area.

Cascais Municipality is located in the Lisbon Metropolitan Area (Portugal). In the 2011 census, it was home to 206 479 people (INE, 2011) most of which living by the shore and working in Lisbon. Due to its privileged location at the entrance of the Tagus estuary, the extended sea shore and its geological characteristics - Sintra Mountain Range - Cascais has a rich natural heritage to the west, with the Sintra-Cascais Natural Park; the south of Cascais is highly urbanized, and it has fourteen urban beaches all of which very popular in the spring and summer (Fig. 1).

Avencas beach is located between two beaches, Bafureira and Parede. This area is characterized by extended calcareous rocky platforms with a small sandy beach in the middle (Avencas beach) sheltered from the dominant winds. This rocky shore is extremely rich in intertidal biodiversity, used by several schools and universities to perform their field trips. Visitors use this area in the summer for tide pooling and swimming. The rocky shore has also an historical and therapeutic interest due to its renowned health benefits in treating bone disease with natural limestone. Avencas Beach is located in the middle of the Avencas Biophysical Interest Zone and was classified as a type III beach (semi-natural beach) with a carrying capacity of 156 people (POOC, 1998). It has a local beach cafe open all year, with a concessional sand area between the 1st of May and the 30th of September (Fig. 2).

In 2009 the Municipality of Cascais, acknowledging the territorial enhancing of having this coastal marine protected area and the problems associated with the non-compliance with the former regulation, started the long process of its reclassification. While taking over its management and implementing local actions, a participative process was simultaneously



promoted by the Municipality, including public assemblies, to allow public participation before establishing the new regulation for this coastal protected area.

Methods, steps and tools applied

To inform visitors about the natural resources present in the area, information spots were setup in all entrances to the beach in June 2012 (Fig. 3). In August, visitor pathways were established in the rocky shore to prevent random trampling on the platform. Those pathways were simple ropes attached to the rocks with direction signs indicating the start of the pathway (Fig. 4).

In 2010 and 2013 visual census were conducted by young volunteers from the municipality. This census aimed to register the number of recreational fishers and visitors to the study area.

In 2012 three public participation assemblies took place in Cascais, promoted by the Municipality. The first one was targeted at the local recreational fishers, the second at other users of the area, and finally the third at the general public. The participants were asked to: name the positive and the negative elements of the Biophysical Interest Zone; contribute with some ideas to achieve the conservation objectives of the area; and to identify a way of cooperation that would preserve the local biodiversity.

Representatives from: the Maritime and Municipal Police, the Environment Municipal Director of Cascais Municipality, the National Authority for Civil Protection, the Portuguese Environmental Agency and the Captain of the Port of Cascais participated in all assemblies. These public participation assemblies were conducted to apply the bottom-up management approach at a local level.

From June to September 2012, visitors to Avencas beach (inside the Biophysical Interest Zone) were interviewed by the same municipal volunteers, in order to analyze their knowledge of the area, and their acknowledgement of management actions implemented on the beach that year. The visual census and interviews to the visitors were conducted to measure the success of the applied management approach in a short-term temporal scale.

An environmental education program was implemented in the Council allowing the guided tour of the protected area by the scholar population along with the promotion of these same tours as a Nature Activity, directed to the families and general public.

As part of the outreach program, the Environmental Center near the protected area (Pedra do Sal Interpretation Center) opened a permanent exhibition to promote de natural patrimony present in the protected area, as well as the one present in Cascais seashore (Fig. 5).



Key success factors

1. Bottom-up approach:

In order to achieve a greater compliance with the regulations and laws, it is necessary to engage the local population into taking action and contribute to the rules being applied in the protected area.

2. Empowerment of the local communities:

The empowerment of the population leads to a smaller need of surveillance by the corresponding authorities. It is impossible to have a law enforcement agent for every beach user, therefore if the local population is fully aware of the natural richness of the protected area and the rules applied to preserve that richness, then the locals can be a key contribution agent to inform and help the visitors.

3. Education for Sustainable Development and Nature Activities

The environmental education program directed to the scholar population and the nature activities contribute to the general environmental awareness of the population, therefore they are essential key success factors to the ultimate nature conservation goal and contribute to the communication objectives of the project, spreading the word to the community.

Lessons learned

Only with an increase in public awareness and compliance with the regulation is possible to achieve the goal of environmental conservation by the general public. This objective can be achieved by: effective communication of rules and regulations (e.g. boundaries); extensive programs of environmental education and outreach; participatory processes of creation and management structures; acknowledge the relevance of all stakeholders; coordination with other management institutions; integration of scientific and traditional knowledge and mechanisms of conflict resolution and ensuring transparency and accountability.

The participation of the community in the early stages of decision-making in a coastal marine protected area also showed positive results, with a good short-term response from users regarding the protected area regulation. In a future scenario, a biological recovery of this protected rocky shore is expected, but new studies will need to be conducted by the Municipality in order to verify the actual recovery of the system.

Results, achievements and recognitions

Recreational fishers showed a change in their fishing spots from the inside of the protected area to other fishing areas, therefore responded positively to the implemented management measures (e.g. public assemblies, information spots, etc.) once there was no increase in law enforcement agents in the study area.

The visual census revealed incredible visitors numbers, reaching at its maximum of 1200 visitors per low tide. The massive use of this small area for leisure purposes, namely tide pooling, causes random trampling in the rocky shore. Trampling is a major problem in rocky shore communities; individual algae can lose about 20% of their biomass with a single footstep. This impact is very difficult to minimize because in Portugal free beach access is a citizen's right, except in case of imminent danger. Consequently, controlling the number of visitors getting to the beach is a near impossible endeavor. The management option of defining some pathways for this massive visitation, allowed a minimization of the trampling impact of the tide-pooling activity.

In this study, and considering a short temporal scale, the strategy of increasing the



availability of information and attempting to establish an orderly visitation of the intertidal platform had a positive effect on visitors which either agreed or respected the various management actions implemented: 84% of them agree with information spots, and 76% agree with the pathways. It is therefore expected a positive impact on the biological communities in a long-term perspective.

The reclassification of the area as a Marine Protected Area occurred in 2016 and it constitutes the first local Marine Protected area fully managed by a Municipality.

Additional references

<https://ambiente.cascais.pt/pt/espacos/outros-espacos/area-marinha-protegida-das-avencas>

<http://visao.sapo.pt/actualidade/sociedade/2018-05-22-E-agora-a-praia-das-Avencas-e-uma-area-marinha-protegida-a-serio>

<http://mpas-portugal.org/project/avencas/>

