

CASE STUDY

System of Integral Management of Beaches

LOCATION:

Islas Baleares, Mallorca, Calvià

TOPIC:

Beach Management in Practice

KEYWORDS: *Beach, conservation, integral, indicators, Local Agenda 21, SIG, SAP*

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SUMMARY

The Calvià Town Hall has elaborated an Integral Beach Management System gathered in some action lines within Local Agenda 21.

The main purpose is the pursuit of the activities that are developed in the beaches that appear in the initiatives of Local Agenda 21 and to provide the information of the beach situation to the population:

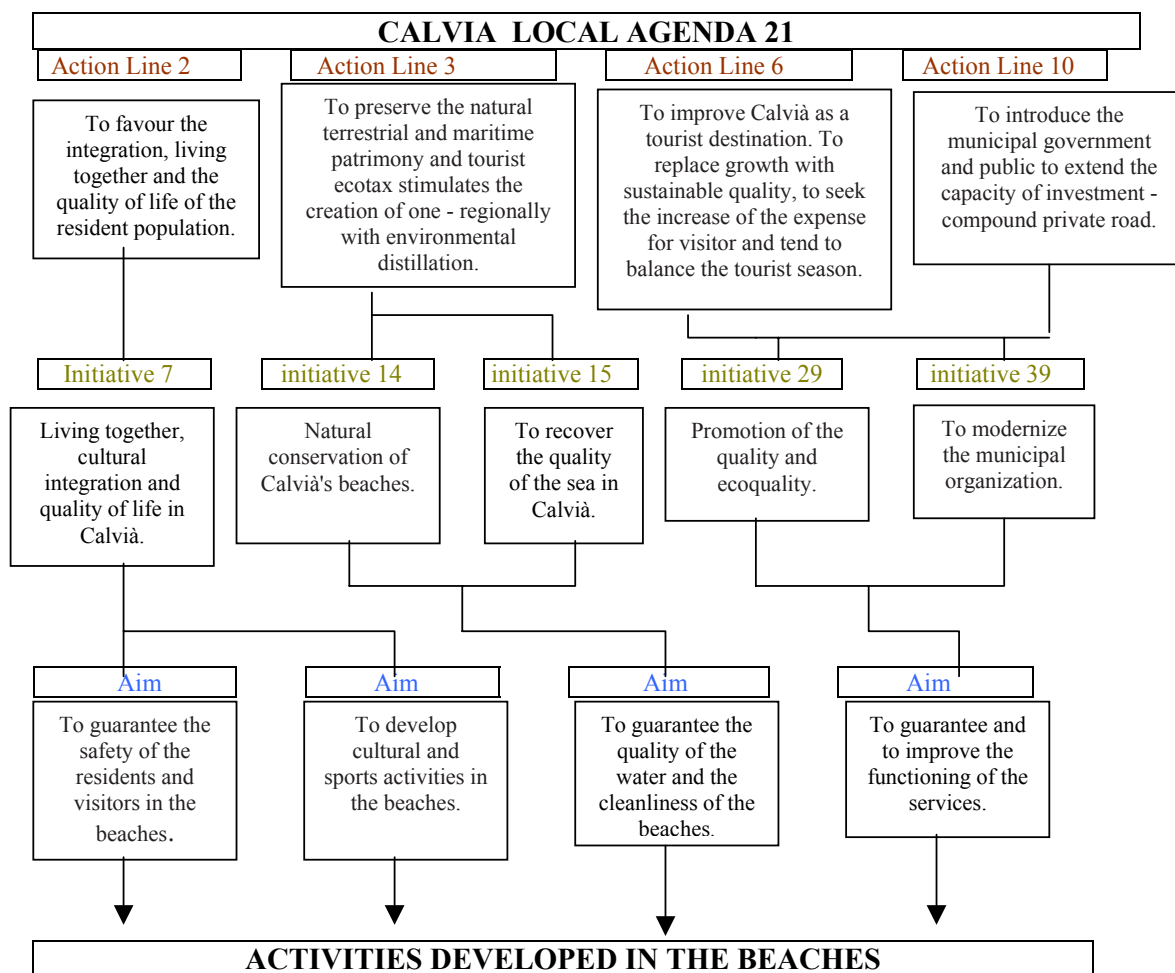
1. Guarantee the security of our residents and visitors in beaches.
2. Develop cultural and sport activities in beaches.
3. Guarantee the quality of the water and the cleaning in beaches.
4. Guarantee and improve the services operation.

35 activity cards have been designed to be developed in 34 beaches of the Calvià Municipality. We have designed in these cards objectives, person in charge, methodology, human resources, technical resources, calendar and beaches where the activity will be carried out. With the purpose of valuing each activity objectively we defined a series of indicators in order to be mechanisms of pursuit and control of the activities.

There are two types of indicators: System of Primary Alert (SAP) indicators that alert facts that can lead to the closing of the beach and the System of General Information (SIG) indicators that allow to visualize the general condition of the beaches. The standard and tolerance limit for each parameter or indicator has been defined. Consequently, the results of the indicators are represented with red, yellow and green colours for simple information and visualization of the users of beaches in Calvià.

- Green : excellent or good quality
- Yellow : regular quality
- Red : deficient or bad quality

The Integral Management of Beaches Plan is placed in diverse action lines of the Local Agenda 21.



A few activity cards were designed using as a base the internally elaborated cards by the Municipal Services and the document of the Quality Strategic Plan of the Miguel Hernández University.

These cards were checked and approved by the persons in charge of the activities or for the Beach Improvement Group that, besides incorporating new paragraphs in these cards, we also unified the concept of high season and it is established as the period that goes from the 1st of April to the 31st of October.

Once all the cards are compiled, the methodology was unified, the process maps were elaborated, the indicators were established and a draft of the manual was elaborated.

In a final phase, the Beach Improvement Group approved all the modifications proposed to make real the definitive publication.

This manual tries to be a useful and in force document to long term, thanks to the production of two procedures to be able to adapt the manual to the changes that take place in the municipal beaches and obtain this way an alive, dynamic and updated document.

Within Calvià a whole of 34 beaches were selected and, for each of them, a descriptive card indicating the general information was elaborated (surface, occupation degree, urbanization degree, composition, colour of the sand, etc.), the transport, the type of grant and the services that the beach presents.

Following we name the activities included in the manual of the Integral Management System of Beaches:

1. Sea rescue and first aids.
2. Beaches and promenades surveillance.
3. Temporary grants and control installations in Calvià's littoral.
4. Fulfilment control of the restrictions in buoy areas.
5. Access for disabled to the sea (amphibious chair).
6. Hygienic – sanitary and environmental control of the sand and bathing water.
7. Cleanliness of the bathing water.
8. Control of sewage spilling to the sea.
9. Repair the beach sand .
10. Mechanical cleaning of the beach sand.
11. Manual beach cleaning.
12. Removal of the *Posidonia* in the beaches.
13. Hygienic - sanitary control of showers and sand of the surroundings.
14. Location and cleaning toxic substances spilling.
15. Location and removal of marine species.
16. Cleaning the seabeds.
17. Hygienic - sanitary and environmental control of the river mouths.
18. Information to the users of the meteorological conditions.
19. Maintenance of the general rain network.
20. Maintenance of the driving stations of sewage and emissaries.
21. Cleaning scupper-holes.
22. Artificial barriers.
23. Sand renovation.
24. Hygienic – sanitary control of sanitary.
25. Showers and sand maintenance of the surroundings.
26. Children games maintenance.
27. Buoys and floating platforms installation.
28. Access to the beaches.
29. Sports activities.
30. Leisure and the culture promotion.
31. Parking and blue zone management.
32. Public transport.
33. Blue flags management.
34. Signposting and information to the beach users.
35. Location of run aground and aimlessly ships.

To carry out the activities 10 and 12, a protocol of good practices has been elaborated on the technical parameters that should be followed to minimize the environmental impacts on the sandy beaches the moment of carrying out the mechanical cleaning and withdrawal of *Posidonia oceanica*.

In these 35 activities cards that are developed in 34 beaches of Calvià's municipality the aims have been defined, the person and the responsible entity for the process, the methodology or procedure, the human and technical resources and the calendar.

Finally, every activity card presents a map of the accomplishment process of the activity in a flow chart shape.

In order to objectively value every activity, a series of indicators (a total of 65) have been defined in order to be follow-up and control mechanisms of the activities. These sets of indicators have been qualified depending on its level and the element that they measure.

There is two types of indicators: System of Primary Alert (SAP) indicators that alert facts that can lead to the closing of the beach and the System of General Information (SIG) indicators that allow to visualize the general condition of the beaches.

The criterion and basic aims of every parameter or indicator has been defined, the description, standard and tolerance margin, methodology of the obtaining, frequency of withdrawal and the subministrant person in charge of the information. This way, the results of the indicators are represented graphically with red, amber and green colours for a simple information and visualization of the users of Calvià's beaches.

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