# Coastal Zone Management Plans for islands, Azores - PT

# 1. Policy Objective & Theme

- ADAPTATION TO RISK: Managing impacts of climate change and safeguarding resilience of coasts/coastal systems
- ADAPTATION TO RISK: Preventing and managing natural hazards and technological (human-made) hazards
- SUSTAINABLE USE OF RESOURCES: Preserving coastal environment (its functioning and integrity) to share space
- SUSTAINABLE ECONOMIC GROWTH: Balancing economic, social, cultural development whilst enhancing environment

# 2. Key Approaches

- Integration
- Participation
- Knowledge-based
- Technical

# 3. Experiences that can be exchanged

Integration of socio-economic and environmental perspectives into planning. A public participation process from the beginning of the plans until their approval. Adaptive management informed by the monitoring scheme of the plans. How the specific features of small islands shape the methodologies.

#### 4. Overview of the case

The most recent Coastal Zone Management Plans (CZMP) were approved in 2008 for the four smallest islands of the Azores archipelago: Santa Maria, Graciosa, Flores and Corvo. These plans are legally binding and establish the potential for land use. The development of these plans included a decision support system, along with Strategic Environmental Assessment (SEA) being the first CZMP in Portugal to include this type of tool. Throughout the whole process, public participation and involvement were promoted.

# 5. Context and Objectives

#### a) Context

The archipelago of the Azores, an autonomous region of Portugal, is located in the middle of the Atlantic Ocean, between Europe and North America. The nine islands comprising the archipelago are spread throughout an area of 66000 km2 along a NW-SE axis and grouped in three different clusters: the Central Group (Terceira, S. Jorge, Graciosa, Pico and Faial), the Eastern Group (S. Miguel and Santa Maria) and the Western Group (Flores and Corvo).

Small islands (defined here as those with approximately 10,000km2 or less and approximately 5,000 or fewer residents) have special needs including new models of spatial planning that integrate land based activities with coastal planning.

The Azorean coastal zone area represents a significant proportion of the territory of the archipelago (943 km coastal length for a total area of 2322 km2 total area).

Santa Maria, Graciosa, Flores and Corvo are the smallest islands of the archipelago but ones with the highest ecological values. The climatic conditions linked to the geographic isolation, the relief and the geological characteristics of the islands have resulted in a great variety of biotopes, ecosystems and landscapes, which provide a high number of habitats for a huge variety of species.

The geographical scale for implementation is local and regional, since the area considered consists of the coast (from 500 meters to -30 meters) of four islands of the archipelago.

Some areas within the islands were already protected under legal demands, like Natura 2000 sites or Protected Areas, but with a lack of conservative management plans or effective implementation.

### b) Objectives

To develop and implement Coastal Zone Management Plans to four islands and promote a decision support methodology with the involvement of the local communities, while integrating ecological and socio-economic aspects.

# 6. Implementation of the ICZM Approach (i.e. management, tools, resources)

#### a) Project Management

The Regional Government/Environmental Agency was the promoter of the CZMP in the archipelago. The responsibility for the plan was a multidisciplinary team, mainly from different Portuguese Universities and different institutes that were led by the University of the Azores. There was an accompanying commission that integrated different regional entities and representatives of different sectors (economic, environmental, social, and institutional) which had the responsibility of approving the plan.

#### b) ICZM tools

CZMP in Portugal are legally binding for public and private entities and they establish the potential for land use. Compared with CZMP from the remaining islands of the archipelago with plans approved, there are some differences between the methodologies used. In the small islands it was possible to implement a new strategy of public involvement to participate in the decision process.

A decision-support system, along with Strategic Environmental Assessment (SEA), should ensure that decision makers, technicians, administrative and political powers have an unbiased vision of the problems and solutions. Therefore, throughout the development of the Plans, a series of tools were used and applied, including GIS, alternative scenarios, modelling, SEA and proposals of integrating monitoring for the process of adaptive management.

The participation of local communities was promoted through forums available on internet and several public participation meetings that were scheduled. There was also an internet page developed to disseminate information to the public interested in the development of the plans.

The elaboration of these plans took about one and a half years until final approval. The implementation process is still under development and the revision of the plan should be undertaken 10 years after the approval date.

### 7. Cost and resources

The CZMP were financed by the Regional Government to a total of €478,250. The implementation cost, calculated by the CZMP team is approximately €53,000,000. Some of the measures that were defined, will be implemented by the municipalities or by local entities.

# 8. Effectiveness (i.e. were the foreseen goals/objectives of the work reached?)

Establishing integrated CZMP strategies on small islands has the positive thinking of starting a process, initiating dialogue, stressing the need for a new style of governance, improving public participation on decision making and raising awareness for coastal problems.

The elaboration of CZMP was achieved but the implementation process is still on-going and not in the time schedule defined.

Though spatial planning is the best instrument to address coastal problems in small islands, ICZM strategies are still needed.

### 9. Success and Fail factors

A good coordination between all the members of the team that elaborated the project.

Closed systems tend to limit the number of actors with an impassioned point of view. Whenever an Integrated CZMP strategy is designed, it should start to design some kind of mechanism to ensure that the impacts of personal influences are minimized. The process of public participation was adequate though the public attendance in the meetings was low.

Another different approach was the integration of the strategic environmental evaluation. These were the first plans in Portugal that integrate Strategic Environmental Assessment.

Though most of them were solved, conflicts arose due to different political approaches between the plan promoter and the planning team or between different administrative levels, delaying the process of decision-making and the establishment of intervention priorities.

There wasn't enough funding for implementation.

It is necessary to raise transparency on the process, making each citizen a guardian of the conduct of others and building the foundations of a partnership with all segments of society.

#### 10. Unforeseen outcomes

The involvement of local communities led to a feeling of public responsibility towards the decisions.

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#### 13. Sources

- Bases para a Estratégia de Gestão Integrada da Zona Costeira Nacional (2006). Gomes, F. V., A. Barroco, A.R.
   Pereira, C. S. Reis, H. Calado, J. G. Ferreira, M. C. Freitas. Versão para discussão pública. (available, pdf)
- Coastal Management in Azores: Indicators checklist for monitoring program (2005). Botelho, A., A. Costa, H. Calado and J. Porteiro. International Conference on Coastal Conservation and Management in the Atlantic and Mediterranean. Tavira, Portugal, 35-38. (digital copy not available)
- Integrated Coastal Zone Management Strategies on Small Islands (2007). Calado, H., Quintela, A. and J. Porteiro.
   Journal of Coastal Research, SI 50 (Proceedings of the 9th International Coastal Symposium), 125 129. Gold Coast,
   Australia, ISSN 0749.0208. (available, pdf)
- Multiple Criteria Decision Analysis: The State of the Art Surveys. (2002). Bana & Costa, C. A., De Corte J. M. and J.
   C. Vansnick. Springer Book Series: International Series in Operations Research & Management Science, (Preprint: Working Paper LSEOR 03.61 2003, London School of Economics) vol. 76: 409-442. (not publicly available yet)



GIZC- Base para Estratégia de Gestao Integrada da Zona Costeira Nacional (7.48 MB)

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