Integrated Coastal Protection Management - DE

1. Policy Objective & Theme

- SUSTAINABLE USE OF RESOURCES: Preserving coastal environment (its functioning and integrity) to share space
- SUSTAINABLE ECONOMIC GROWTH: Developing Europe's regional seas sustainably

2. Key Approaches

- Integration
- Participation
- Knowledge-based
- Ecosystems based approach
- Socio-economic

3. Experiences that can be exchanged

Coastal Protection is one of the major tasks in a State such as Schleswig-Holstein bordering both the Baltic and North Sea. The new “Generalplan Integriertes Küstenschutsmanagement” (master plan integrated coastal protection management) for Schleswig-Holstein is the first in Germany that applies the principles of ICSM in Germany. It addresses the possible consequences of climate change. Public participation and the consideration of the requirements of other users are also crucial parts.

4. Overview of the case

The Coastal Protection Master Plan of the state Schleswig-Holstein is an example that integrates competing interests by enabling public participation. A coastal protection information system was initiated and risk management was introduced that considers actual research and monitoring results to evaluate measures that are taken. The magnitude of climate change impact is still unknown for the area but it is considered in a flexible and adjustable way. Salt marsh management is seen as an environmental and coastal protection task.

5. Context and Objectives

a) Context

The Baltic Sea coast of Schleswig-Holstein is shallow; the coastline is formed by many moraine cliffs, and broken by lagoons, peninsulas, and one island. The North Sea coast is characterised by low-lying marshlands protected by dykes, and several islands that are protected by dykes and natural dunes. About 24% of the State is flood-prone (below 5 metres at the North Sea, below 3 metres at the Baltic Sea coast). For 150 years, the coast has been protected from erosion and retreat e.g. by groynes and sand nourishments. Coastal protection affects several sectors and needs spatial planning procedures. Before the new integrated concept was released, the authorities concentrated mainly on maintaining and strengthening dykes. Today the coasts are used by many competing interests e.g. environment, tourism, agriculture, therefore, integration of the sectors became necessary to avoid conflicts. Formerly, the public had the possibility to state their concerns during the planning procedures for larger coastal protection projects but there was no tool for public participation in general planning or policy processes. Climate change and resulting changes in sea level had not been considered in the planning of coastal protection and because the amount and specific effects of climate change are still an open question, the master plan needs to operate with some flexibility.

b) Objectives

The aim was to define a new concept for coastal protection that includes ICZM concepts such as public participation, integration of other interests, and the consideration of climate change impacts.

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

a) Management

The Schleswig-Holstein State Ministry for Agriculture, Environment and Rural Areas / Coastal Defence and Harbour Division is responsible for the approval of coastal protection plans. It authorises the erection or removal of dykes and any changes concerning dykes, dams or flood barriers. Since January 2008, a new State Agency for Coastal Protection, National Park, and Marine Protection (LKN) in Schleswig-Holstein is responsible for the maintenance of dykes, barriers, groynes, and ports, approves construction plans and utilisation of coastal areas and is active in combating spills and other accidents at the coast.

b) ICSM tools

The Schleswig-Holstein state authorities have been active in ICZM projects. As a first step in the development of a new coastal protection management plan, together with the participation of the public and stakeholders from the coast, a new conceptual vision for coastal protection was defined and approved by state,

regional, and communal administration, cultural and environmental NGOs, This broad vision was further refined into 10 main principles. VASAB 2010 and HELCOM defined principles for integrated spatial planning in the Baltic Sea Region. Workshops at the University of Kiel in 1999 and of the project PROCOAST had promoted the ideas of ICZM and many of the stakeholders had already been gathered.

The master plan is a guidance tool that considers public participation. To enable this for general planning the “Beirat Integriertes Küstenschutsmanagement (BIK)” (Advisory Board for Coastal Protection Management) was founded as a public counselling unit representing different interests. It consists of 27 members of regional and local communities, water and soil management organisations, environmental organisations, environmental authorities and the coastal protection administration. Additionally, depending on the situation or specific issues, expert advisory boards can be set up. A GIS was established as a coastal protection information system. Environmental, hydrological and morphological data from regular monitoring and other research projects are integrated into the information system. Thus, adjustments based on the present scientific knowledge on possible effects of the marine environment on coastal protection measures are possible. The coastal research activities in this respect are coordinated by a joint federal and state initiative, the German Coastal Engineering Research Council (KFKI). Furthermore, a management concept for the salt marshes combines environmental, cultural and coastal protection aims with an emphasis on environmental protection but not at the expense of coastal protection. A risk management concept was implemented to be able to react flexible and timely to the still unpredictable magnitude of the impacts of climate change. Thus, probable risk can be minimised, even if flooding is not necessarily avoided. A prerequisite for risk management is the valuation of assets in flood-prone areas.

7. Cost and resources

Per year about €50 - 55 million are planned to be spent on coastal protection in Schleswig-Holstein during the 10 - 15 years that the current master plan is valid. Most expenditure will be necessary for maintenance and construction of dykes.

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

The Schleswig-Holstein Master Plan for Coastal Protection is the first such management plan in Germany implementing the principles of ICZM. A large consensus could be established to define a conceptual vision for coastal protection including the public and stakeholders. Competing interests were considered for defining aims and methods. The still unknown magnitude of specific climate change effects are integrated in a flexible way and scientific knowledge has been used to adjust the management plan.

9. Success and Fail factors

A means to integrate different interests and public participation was established with the advisory board. A coastal protection information system has been established and was adjusted to newer technical standards. The risk management concept is a means to react to climate change in a flexible way and be prepared for adjustments.

10. Unforeseen outcomes

None so far.

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13. Sources

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