

# Public Participation in Integrated Flood Risk Management in Timmendorf - DE

## 1. Policy Objective & Theme

- SUSTAINABLE USE OF RESOURCES: Sound use of resources and promotion of less resource intensive processes/products
- SUSTAINABLE ECONOMIC GROWTH: Balancing economic, social, cultural development whilst enhancing environment

## 2. Key Approaches

- Integration
- Participation

## 3. Experiences that can be exchanged

Public participation can be successful if the problems which require a solution and the objectives of the participatory process are well defined. Model tools are helpful to structure and guide the discussion and decision process.

## 4. Overview of the case

Climate change and sea-level rise called for a new coastal defence strategy in Timmendorf/ Scharbeutz, Germany. In a participative process, this strategy was successfully developed by local stakeholders, municipalities and coastal defence authorities.

## 5. Context and Objectives

### a) Context

Timmendorfer Strand and Scharbeutz are two renowned coastal holiday resorts located on the Baltic Sea coast of Germany. With about 1.3 million overnight stays per year, the local economy depends strongly on tourist activities. At the same time, almost 6,000 inhabitants live in coastal flood-prone areas and are at risk from extreme storm surges. The main flood defence is the natural beach-ridge with heights of about 2.5 to 4.0 m above mean sea level (MSL). It is not certain that this flood defence could withstand a "once in a hundred year storm surge" with water levels of 2.1 m above MSL. When MSL rises 50 cm this high water level would be reached every 10 years.

The municipalities are responsible for flood defence. Coastal defence authorities have, in the past, pointed out the hazard and proposed technical solutions. A solution of building a sea wall on the beach was met with great scepticism by the local community which strongly depends upon the beach as the main tourist attraction. To overcome this deadlock situation, in 1999, the municipalities and coastal defence authorities agreed upon a new and participative procedure to develop an integrated flood defence solution. As a starting point, a public meeting with about 65 persons was organised. Altogether five meetings in working groups and a final public meeting followed.

### b) Objectives

The major objective was to carry out a sensitivity analysis in a participatory process, which included a) characterisation of the

system with appropriate variables; b) definition of the effects (direction and strength) of the system variables upon each other; c) definition and simulation of different scenarios that focus on the problem/action and d) development of recommendations as to which coastal protection measures should be implemented in the region.

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

### **a) Management**

All affected persons as well as local boards, councils, etc. were invited to a first public meeting, organised by a consultant. At the initial meeting the initiator, the ministry responsible for coastal defence, gave a description of the present situation. The consultant broadly explained the sensitivity model and invited the participants to collaborate. The five follow-up meetings took place in working groups with not more than 25 persons. To avoid prejudice under local participants, the consultant moderated the analysis neutrally and independently. The results were discussed on a final public meeting after, altogether, seven months.

### **b) ICZM tools**

The participation process was supported by the "Sensitivity Model of Prof. Vester©", a method, developed to cybernetically evaluate complex systems. The basic idea is that each system (country, region, company, etc.) is composed of a number of interacting elements which should be viewed in a holistic way. Further, it is recognised that the affected persons (citizens of a region, employees, etc.) have a profound knowledge of their system, and should be actively involved in the analysis. Following this line of argumentation, a conceptual model can be established by the affected persons that describes the complex system in a simplified way. With this (computer-aided) model, possible future developments under different scenarios can be simulated.

## **7. Cost and resources**

The Ministry of the Interior of the Federal State of Schleswig-Holstein, responsible for coastal protection, subcontracted an external consultant. The consultant organised and moderated the seven meetings and supported the discussion process with a software tool.

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

The objectives were reached within the given time-frame.

## **9. Success and Fail factors**

The active involvement of the affected stakeholders, the systematic approach and the transparency of the results made this approach attractive for the region and it supported the recognition of the problems, an awareness of the responsibilities and the acceptance of possible solutions

Problematic was the low number of participants (compared to those affected), the tiresome and time-consuming procedure and that it depended upon volunteers. This approach bears the risk that results may not conform to contractors expectations, that a decline in interest during meetings takes place and that finally not enough stakeholders participate. Due to funding reasons, the implementation of the coastal protection measures took place only several years after the participation process. At that time, details of the participation process were already lost

## **10. Unforeseen outcomes**

None.

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## 13. Sources

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