

# Conflict management in the case of River Elbe dredging - DE

## 1. Policy Objective & Theme

- ADAPTATION TO RISK: Integrating coherent strategies covering the risk-dimension (prevention to response) into planning and investment
- 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

A sustainable development plan was developed as a long-term vision for the region and the port as part of a conflict management approach. Application and adjustment of ICZM methods and tools with a participative processes integrated stakeholders from different administrative levels and different sectors.

## 4. Overview of the case

The initiative investigated interactions between environment conservation, conflict management and sustainable development concentrating on the Hamburg port and the sustainable development of the Elbe estuary. Huge conflicts between sectoral interests and between short term and long term plans for development prevailed. Stakeholder participation was an important step in conflict management. Several tools were used, discussed and adjustments recommended by stakeholders to assess the situation. A sustainable development plan for the region and the port was developed to have a basis for a long-term development vision.

## 5. Context and Objectives

### a) Context

Hamburg is the second largest city in Germany with a population of over 1.7 million, and 4 million in the metropolitan area. It is the third largest industrial area in Germany and harbours the third largest port in Europe, one of the ten largest container ports worldwide. The port plays a major role for the city's economy. It is in the interest of Hamburg and the harbour-related economy to develop the harbour. More than 150,000 jobs in the metropolitan area depend on the harbour, affecting employment in all of Germany (society interest). The port is under tidal influence and needs to be dredged regularly. Sediments need to be de-contaminated despite the water quality improvement since the 1990s. The major part of cleaned sediments is re-located. Sediment loads to be dredged are increasing. Large vessels can reach the harbour only at high tide. To be independent of tides the downstream riverbed needs to be dredged 1 additional meter, affecting 130 kilometres of the Elbe estuary downstream of Hamburg. The topic stirred great attention, and a strong opposition of environmental NGOs, the Federal Environmental Ministry and the general public.

The ICZM recommendations of the European Parliament and the Council were published in 2002. The "ICZM Progress Marker"

tool was recommended for testing by the ICZM Expert Group in 2004. A set of Sustainability Indicators to assess sustainable development along the coast was released in 2004 by the Working Group on Indicators and Data. In April 2006 the national ICZM strategy for Germany was presented at a conference in Bremen.

## **b) Objectives**

The main objectives were to demonstrate conditions for spatial conflict resolution in coastal zone management from a bottom-up perspective. The indicator tool “ICZM Progress Marker” was to be tested in this Hamburg study. One aim was that the stakeholders assessed their progress towards the implementation of ICZM and test the usability of the tool for that purpose. SWOT and DPSIR analysis were used to assess the situation, potential future, and identify the major threats for a sustainable development of port and region. Another focus was to promote long-term capacity building in coastal zone management concentrating on methods for conflict resolution through the development of a network and joint educational programme for ICZM in the Baltic Sea Region.

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

### **a) Management**

TuTech Innovation GmbH, and the Ministry of Environment of the Free and Hanseatic City of Hamburg co-ordinated the initiative. Coastal stakeholders of different administrative levels, from economy, science, and NGOs participated in the process,

### **b) ICZM tools**

An environmental risk study and cost-benefit analysis agreed on the feasibility of the work. An approval procedure started: detailed project plans, definition of environmental sustainability parameters, actual environmental studies, stakeholder involvement. The plans stirred strong opposition of environmental NGOs, the Federal Environmental Ministry and the general public. Ecological conflicting aims for the river are protection of its natural condition, keeping morphological changes low, reduction of emissions and pollution into the river, prevent oxygen shortage, prevent dredged material to affect the marine environment. River water levels are decreasing as a result of climate change, with a trend to decrease further. Long term planning includes the development of a deep water port offshore Wilhelmshaven. Both issues raised doubts on the long-term usefulness of the river deepening.

The indicator system “ICZM Progress Marker” was criticised and adjustments recommended in a participatory process with all stakeholders. The suitability of ICZM methods and tools was discussed and developed further. SWOT (Strengths, Weaknesses, Opportunities, Threats) and DPSIR (Driver-Pressure-Status-Impact-Response) analyses were used as an aid to define conflicts transparently, and to point out major threats for the sustainable development of the region. A Sustainable Development Plan for the tidal Elbe with a long-term vision was developed and submitted for discussion. Workshops created a good basis for stakeholder exchange and discussions. An exchange platform and seminars and conferences were used for dissemination and information exchange. The initiative ran from June 2004 to December 2007. Basic information on cases and activity plans were released in 2005; in 2006 a workshop on the results was held, and guidelines for conflict resolution, a joint report on the studies, methods, results, and experiences was published. In 2007, the final results were disseminated and an educational network was established.

## **7. Cost and resources**

The budget for this case is not known although it was co-financed using ERDF funds.

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

Stakeholders were actively involved in improving ICZM instruments and methodology. Stakeholder groups from different levels – including neighbouring states – and sectors were participating in the case process. For example, weaknesses of the

“Marker” tool were identified and changes recommended. The DPSIR framework was used to describe current and potential future conflicts in improving the environmental condition considering social, economic, and political development. It provided transparency of the problems. It revealed a need for stronger co-operation between levels of authorities. A SWOT analysis identified the lack of harmonisation of ideas on the development as a major threat.

## 9. Success and Fail factors

The discussion of stakeholders about the applicability of the “ICZM Marker” increased the will to participate in the development of ICZM methods and instruments. Only four stakeholders of 55 had done an assessment using the “ICZM Progress Marker”. Thus, the tool in its present state was not applicable for an assessment. Participatory processes were already established to a certain extent in planning processes in Germany. Different stakeholders had different definitions of ICZM in mind, a fact that hampers mutual understanding as long as it is not revealed. ICZM is still a vague and ambiguous term.

## 10. Unforeseen outcomes

Hamburg Port Authority and Waterway and Shipping Directorate (WSD Nord) prepared a concept for a sustainable development of the tidal River Elbe as an artery of the metropolitan region Hamburg beyond 2006. The core aspects are attenuation of increasing tide energy, creation of tidal zones between Glückstadt and Geesthacht, and optimising sediment management considering the whole Elbe. It is a first step towards the long-term task (100 year framework) of sustainable development. The concept was submitted for discussion, comments and public inspection. In 2010, a new initiative called TIDE for the sustainable development of the German North Sea estuaries will pick up some of the insights of this Elbe dredging case study.

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## 13. Sources

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