

# Towards an integrated river basin – coastal area management approach: the Odra river - DE/PL

## 1. Policy Objective & Theme

- ADAPTATION TO RISK: Preventing and managing natural hazards and technological (human-made) hazards
- SUSTAINABLE USE OF RESOURCES: Sound use of resources and promotion of less resource intensive processes/products

## 2. Key Approaches

- Integration
- Knowledge-based
- Ecosystems based approach

## 3. Experiences that can be exchanged

Large river systems like the Odra, with a large population, a high number of authorities and organisations as well as complex political and legal structures require high ranking political commitments, clear objectives and structures as well as an adequate body as a basis for co-operation and management. Coastal zones in the vicinity of large rivers cannot be managed independently from the rivers and their catchments. Spatially integrative management approaches are needed. The Water Framework Directive (WFD) has accelerated cross-border cooperation and, due to clear implementation time schedules, asks for concrete plans and actions within a given deadline. However, the focus of the present approaches is in practice very much on the river basin; coastal and marine issues are largely lacking. Furthermore, the thematic scope of the WFD is too limited to serve as a general management concept.

## 4. Overview of the case

Large rivers have a strong influence on their adjacent estuary and the surrounding coastal area. The Odra river is an outstanding example to show the interrelations between river basin, coast and sea and to prove the dependency of coastal management on river basin management. Therefore, in 2002, it became an international case study of the UNEP-ICARM programme and of IGBP-LOICZ (Land-Ocean Interaction in the Coastal Zone).

## 5. Context and Objectives

### a) Context

The Odra (854 km length) is one of the most important trans-boundary rivers in the Baltic region with an average discharge of 530 m<sup>3</sup>/s. Its basin (118,000 km<sup>2</sup>) is shared between Poland (89 %), the Czech Republic (6 %) and Germany (5 %). The last extreme flood with a discharge up to 2,800 m<sup>3</sup>/s took place during the late summer of 1997 and caused severe damage. Already for centuries, the river basin and the coastal zone are under strong human influence. The Odra river flows through Szczecin and enters the large, shallow Szczecin Lagoon. Through the lagoon runs the waterway, which links the Baltic Sea with the city of Szczecin, its large harbour and important ship-building industry. The lagoon water is discharged into the Pomeranian Bay (Baltic Sea) via three outlets. The river and its loads are responsible for the poor water quality in the lagoon and its highly eutrophic state.

The Odra region faces dramatic political, social, economic and natural changes: a) like eastern Germany, Poland was subject to social changes and its transitional economy is still facing serious on-going problems and changes, b) with Poland's EU

membership in 2004, the entire Odra region became part of the European Union. The new agricultural and industrial policy as well as the implementation of new standards will cause dramatic changes. Cross-border co-operation and competition will increase, resulting in social and economic transformations. This will have multiple effects on the Odra River basin, the river itself and the coastal area, c) active European environmental policies e.g. the Marine Strategy Framework Directive, the recommendation on ICZM, the Habitat Directive (Natura 2000) and the WFD which are now being implemented.

## **b) Objectives**

The general objectives are a) to analyse river basin – coastal area interactions, b) to compile major issues for an integrated management, c) to evaluate the present regional and cross-border co-operation d) to develop joint recommendations and guidelines and e) to establish a lasting joint co-operation.

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

### **a) Project Management**

The initiative was from the UNEP-Global Programme of Action for the Protection of the Marine Environment from Land-Based Activities (UNEP-GPA) under the programme “Integrated Coastal Area River Basin Management” (ICARM). In 2002, UNEP-GPA established a joint German/Polish expert group for the Oder river case study. The 8 members were representatives from science, ministries, authorities and regional administrations which met twice a year. The group had the task to compile and provide existing information, to establish contacts and to create national networks.

### **b) ICZM tools**

A report with guidelines and recommendations for an improved Integrated Coastal Area - River Basin Management (ICARM) for the Oder/Odra was produced. Many environmental problems in the coastal zone result from activities in the river basin. An ICARM is needed to complement ICZM activities. Together with other world-wide ICARM case studies a book has been published, presenting different approaches and solutions and showing the benefits of an ICARM approach.

The regional report contains a) a systematic analysis of river basin – coast issues, b) gives detailed social, economic and ecological background data c) reflects the present governance and management situation, d) shows future challenges like climate Change, transformation processes in agriculture, and changes due to the Polish EU membership and finally e) analyses present short-comings and gives recommendations.

The major issues in the Odra region clearly reflect the growing need for coastal area - river basin co-operation and management but it still receives only minor attention. Regional authorities especially are well aware of major problems and clearly see the links between catchment and coast but without taking action. The public awareness of water-related problems and the consequences of a lack of integrated management is only poor. Future threats, like climate change and sea level rise and their potential consequences are not well perceived. Problems and issues in the neighbouring country are not sufficiently reflected in the media either. In the case of the Odra, an awareness and information deficit clearly exists. The coast mainly suffers from activities in the river basin but, at the same time, the coastal area is small compared to the large catchment. Experiences concerning the implementation of the WFD in other river basins revealed that a small coastal community usually faces many representatives from the river basin. Therefore, the coastal community is not well able to attract attention for their issues and problems. The trans-national Odra region reflects the cultural, economic and social differences especially between Germany and Poland. Therefore, the focus of recent efforts was to improve the cross-border cooperation between Germany and Poland and to foster a joint regional development.

## **7. Cost and resources**

Seed money and expertise was provided by the UNEP-Global Programme of Action for the Protection of the Marine Environment from Land-Based Activities (UNEP-GPA). Between 2004 and 2006, the German National Ministry for Education and Research (BMBF) provided about €200,000 funding within the project ‘Research for an Integrated Coastal Zone Management in the Oder Estuary Region’ (ICZM-Oder, phase I).

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

The project did not include an implementation schedule. The objectives were only partly reached.

## 9. Success and Fail factors

The UNEP-GPA programme “Integrated Coastal Area - River Basin Management” (ICARM) served as an umbrella. It ensured the co-operation between the actors and increased the motivation of regional authorities and administrations. It facilitated the cross-border co-operation and the search for financial support. Another joint strong driver was the WFD with its clear implementation schedule. In May 2002, the International Commission on the Protection of the Odra against Pollution (ICPO) received the mandate to co-ordinate the implementation of the WFD within the international Odra river basin. Funding by German National Ministry for Education and Research allowed detailed studies and evaluations about the impact of the river on the coastal zone. A lack of high ranking political and financial support prevented intensified activities on the Polish side. In general, the lack of a joint language reduces the efficiency of cross-border activities.

## 10. Unforeseen outcomes

A co-operation with the International Commission on the Protection of the Odra against Pollution (ICPO) failed.

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## 13. Sources

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