

Development and application of ICZM indicators - 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
- Knowledge-based

3. Experiences that can be exchanged

Indicator sets have to be kept very simple and have to allow a fast application. In general, the available international sets allow a fast comparison of the state and progress of ICZM between regions. To track the temporal progress of a region towards ICZM over a number of years, a tailor-made set of indicators is required. This set has to be adapted to the specific development objectives and settings of the region. The selection of indicators requires well defined objectives and a systematic approach. This is time and resource consuming and requires an interactive involvement of major regional stakeholders.

4. Overview of the case

Between 2004 and 2009 different sets of indicators describing the state of, and progress towards, ICZM have been applied in the Oder estuary region and tailor-made regional ICZM sets have been developed.

5. Context and Objectives

a) Context

In 2004 the „International Project on the Development and Application of Indicators for Integrated Coastal and Ocean Management“ of the Intergovernmental Oceanographic Commission of UNESCO (IOC) finished their definition of indicator sets and were looking for case studies. The Oder estuary region became one of these international case studies and applied and evaluated the indicator sets on „governance“, „ecology“ and „socio-economy“. A parallel set of tailor made indicators was developed and tested along with the indicator set to measure the progress in the implementation of integrated coastal zone management in Europe of the EU ICZM Working Group on Indicators and Data. All approaches have been compared and their suitability for the region has been evaluated.

The Water Framework Directive (WFD) is a spatially integrated activity which supports ICZM. It defines management objectives for aquatic ecosystems and formed a major background for the indicator application. Based on the DPSIR (Driver, Pressure, State, Impact, Response) framework all indicators were classified. The test site for the indicator application was the Oder (Polish: Odra) estuary region. It forms the border between Germany and Poland, is located at the south-western Baltic Sea and covers an area of 30-60 km landwards from the sea-shore as well as the entire Pomeranian Bay (up to 50 km seawards). The coastal zone on land covers an area of about 7,000 km² and consists of two administrative districts on the German side (Ostvorpommern and Uecker-Randow) as well as three administrative districts (Goleniowski, Kamienski, Policki) and two urban districts (Szczecin and Swinoujscie) on the Polish side. The application of indicators was restricted to the German territory of the Oder Estuary.

b) Objectives

The overall goal was to select a set of indicators that represents the entire DPSIR cycle and reflects the dependencies in our coastal system. The objectives were a) to apply and evaluate existing indicators describing the state of, and progress towards, ICZM, b) to adapt and further develop these indicators for the regional needs of the Oder estuary region or alternatively develop an own set of regional indicators c) to test their general applicability and transferability to other German coastal regions and d) to assess their suitability for the national German strategy on ICZM. The application of existing indicator sets has been carried out within one year. The development and application of tailor-made indicators altogether took nearly six years.

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

a) Management

The work has been carried out by the University of Applied Sciences Neubrandenburg and the Leibniz-Institute for Baltic Sea Research Warnemünde in close co-operation with regional and local authorities. The major co-operation partner was the Regional Spatial Planning Authority, which represents 4 districts (Kreise) and 264 communities. Support came from EUCC - The Coastal Union Germany and UNESCO-IOC.

b) ICZM tools

Provision of different sets of indicators, describing the progress and state of ICZM. The indicators, the results of the application and a critical evaluation are documented on the Internet and in several reports and publications. The exemplary application took place in the Oder estuary region. The indicators were evaluated with respect to their applicability in the national German strategy on ICZM and with respect to comparative evaluations between regions. Further, the own, tailor-made regional ICZM sets have been developed, applied and evaluated.

7. Cost and resources

The German National Ministry for Education and Research (BMBF) provided funding of about €150,000 within the project 'Research for an Integrated Coastal Zone Management in the Oder Estuary Region' (ICZM-Oder, phases I-III) between 2004 and 2009. Some minor funding was provided by the project "Developing Policies & Adaptation Strategies to Climate Change in the Baltic Sea Region" (ASTRA) within the INTERREG III B-programme and know-how was contributed by UNESCO-IOC and EUCC – The Coastal Union.

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

The objectives were largely achieved. The indicator development and application turned out to be more time and resource-consuming than expected and the schedule had to be adapted.

9. Success and Fail factors

The availability of excellent background, monitoring and statistical data for a wide range of social, economic and ecological parameters gave flexibility with respect to the choice of indicators and allowed comparatively rapid test applications. Existing contacts and co-operation in the region allowed efficient communication and discussions. UNESCO-IOC accepted the region as an official international study side. This increased the acceptance of and the support for the work. The Recommendation on ICZM stimulated national coastal management activities and were the background for the funding of the project ICZM-Oder by the German National Ministry for Education and Research (BMBF). This allowed a more comprehensive approach.

The lack of a joint language and very different administrative, legal and political structures hampered the application of indicators on both sides of the border, in Germany and in Poland.

10. Unforeseen outcomes

The national German Strategy for ICZM did not include an approach to evaluate the state and progress of ICZM in Germany. Therefore, the national interest in the development and application of indicators declined. The results of this study were not picked up, the indicators were not applied in other German coastal regions and the work was not carried forward.

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13. Sources

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