

The TIDE-Project – Sustainable Tidal River Development in North Sea Region Estuaries

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Introduction:

Focusing on four North Sea Region estuaries under a strong tidal influence, European experts from environment agencies, port authorities, universities and waterways administrations cooperate within the frame of the TIDE project. TIDE stands for Tidal River Development and wants to find multi-beneficial solutions for future sustainable estuary development. This shall be accomplished by harmonizing the different uses of the estuaries through integrated management.

The operational aims of TIDE are to improve knowledge on estuary functioning, develop an integrated management framework and evaluate practical measures planned and implemented in order to enhance sustainable and integrated management of estuaries.

The project is supported by 50% by the ERDF financed INTERREG IVB North Sea Programm and Hamburg Port authority is leadpartner of the project. The official start was January 2010 and it will last until December 2012.

Methods:

Among the first working steps of TIDE are the compilation of existing knowledge and the identification of knowledge gaps on estuarine functioning and estuarine ecosystem services. The ecosystem service approach allows environmental issues to be connected to economic services. Based on this and with the assistance of regional working groups, state-of-the-art and governance solutions can be identified. In order to learn from the experiences drawn at the other estuaries, TIDE compiles and analyses practical mitigation and compensation measures planned and realised at Elbe, Weser, Humber and Scheldt (i.e. sediment traps, new dredging and relocation methods, restoration of river shores). Additionally, pilot projects appropriate to improve hydro morphological and ecological conditions will be planned and implemented at the estuaries during the runtime of TIDE. The gained knowledge will be transferred to other European estuaries through conferences, workshops, lectures, TIDE on Tour events and information materials.

Results: After a kick-off meeting in February 2010, workpackages were refined and a timeplan verified.

So far, regional working groups and a public information platform on the internet (www.TIDE-project.eu) were established and the first issue of the magazine "TIDE Times" was published. Operational deliveries are factsheets describing both the 4 estuaries Elbe, Humber, Schelde and Weser and the pilot projects of TIDE. Hydrologic, sediment and ecological facts as well as best practice regarding estuary management and communication methods are presented.

Even now it is obvious that it is necessary to assess ecosystem services for further consideration in estuary management concepts which will be one major point in TIDE.

Each estuary will provide information on already realised and planned practical measures to be analysed subsequently in order to deduce recommendations for an improved selection, planning and implementation of measures. Both, the analysed measure examples and the deduced recommendations will be compiled in the TIDE "measure box" and made available to other estuary managers, experts and decision makers. Additionally, concrete pilot projects will be planned and realised within the estuaries of Elbe, Weser, Humber and Scheldt.

On the SedNet Conference, the four estuaries of Elbe, Humber Scheldt and Weser will be presented with common challenges and assets. The first results of working steps as regards the ecosystem services approach can be shown. The practical measures in the estuaries will be presented with special focus on the Weser estuary.