

# Development of a Policy Decision Framework for the Scheldt Estuary



**Client:** Ministry of the Flemish Community, Department of Nautical Access

**Date:** 2004 – 2005

**Budget:** € 55 730

**Location:** Belgium, Antwerpen

**Partners:** ECOLAS – HKV Lijn in Water

## Assignment:

Define a proper set of indicators as part of a general management framework for the Scheldt estuary.

## Scope of Services:

- Process analysis of the accessibility
- DPSIR evaluation
- Definition of relevant process and management indicators
- Technical development of a dataset with socio-economic parameters

## Technical Description:

With respect to a more sustainable management of the Scheldt estuary, the Netherlands and Flanders jointly worked out a Long Term Vision (LTV) of the river Scheldt estuary. The general aim of this study is the set-up of a coherent system of relevant management indicators in relation to the LTV-themes safety, accessibility, naturalness, fishery and recreation.

By deploying these indicators, an essential support for policy makers is made available to ensure an integrated and sustainable management of the Scheldt estuary. The collection of practical management indicators provides a handy tool to observe, visualize and analyse in an integrated way the five main themes of the LTV.

Finally, the indicator tool reflects all relevant physical processes, their evolution, their development, their actual status and their complex interaction. By integrating all five topics of the LTV, i.e. internal and external safety (including flood hazards), nautical access, naturalness, recreation (tourism) and fishery a more sustainable identification of the complex estuarine river system is developed.

Within this group (with partners ECOLAS and HKV Lijn in Water), the water team was responsible for all aspects related to the accessibility theme.

The selection of the proper management indicators starts from a fundamental, scientifically based process analysis of each LTV-theme. In a bottom-up approach, complex interactions and aspects are identified in the processes leading to a proper indication on key-parameters. These key positions are translated into selected so-called process indicators, reflecting the associated physical processes.



*View on the Westerscheldt mouth Vlissingen*



*Beacon in the Scheldt estuary near Doel*



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Besides this fundamental approach, relevant policy targets and associated (potential) indicators are selected through active participation of external experts and the study steering committee in a top-down approach.

By integrating both approaches, an initial selection of both relevant processes and management indicators are formulated. This integration takes into account on one side the existing policy targets and engagement and on the other side the public transport.

For the accessibility theme, the following management indicators are selected as relevant input to the policy framework :

- nautical smoothness
- calamities risks
- risk associated with hazardous goods
- maritime cargo traffic
- areal distribution in the estuary

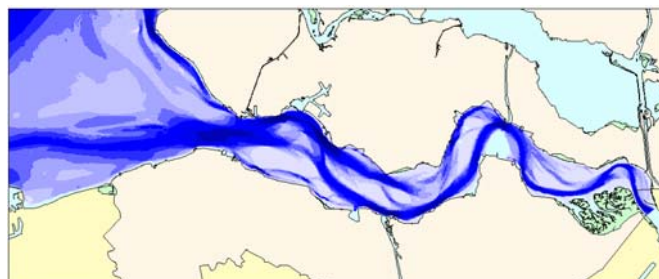
Identified process indicators, such as the volume of maintenance dredging or the critical dimensions of the access channel, are supporting the management framework.

In order to assure the reliability and workability of the selected management indicators, valid characteristics as credibility, continuity, availability or international compatibility are checked in the final decision by the steering committee.



Westerscheldt estuary near Vlissingen

To finalize the general policy framework, the selected management indicators are put into a broad socio-economic perspective by collecting relevant local and regional socio-economic characteristics in an overall database. The Scheldt estuary was seen as one transboundary geographic unit.



Bathymetry recording 2002

The proposed set of management indicators can easily and directly be used as a steering tool for the common Dutch-Flemish monitoring programme and its follow-up. Together with its application as a policy framework to validate, analyse and adjust the LTV implementation in the forthcoming years.



Process Analysis for the theme "Accessibility"