



Sustainable development of the Scheldt Estuary: building an integral vision on navigation, environment & safety

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Nature's way of dealing with unhealthy conditions is unfortunately not one that compels us to conduct a solvent hygiene on a cash basis. 1919, George B. Shaw

Abstract

The Scheldt Estuary lies on the border of the Netherlands and Belgium. With its four major ports of which Antwerp in Belgium is the largest, it is an important economic focal point. In addition, the Scheldt estuary is one of the last fully tidal estuaries on the North Sea, supporting rare and important habitats.

Policy planning in the Scheldt Estuary is confronted with often conflicting interest. To facilitate sustainable development, the Ministry of Transport, Public Works and Water Management of the Netherlands and its Flemish counterpart decided to build an integral long term vision on the Scheldt Estuary, that will be guiding for policy makers in both countries.

The vision is developed over a two-year period from a carefully created common understanding of the present and near future. The vision is built by Flemish and Dutch officials representing the three perspectives most crucial to the estuary and its users: navigation, environment and safety. Leading scientists have contributed with well-focussed research and their views on the future of the estuary. In its final form the vision will consist of an agreed upon description of the estuary in 2005 and an agreed upon set of long term policy goals and mid term strategies to reach these goals.

The integration of scientific research and expert knowledge and the close co-operation of Flemish and Dutch officials are found critical in building consensus on the long-term vision. Most important result so far is that the parties involved constructively work together on the vision to make it a joint basis for future policy planning.



1 Introduction

Policy planning in the Scheldt Estuary is increasingly slowed down by the conflicting interests of stakeholders. Situated on the Dutch Flemish border, the estuary sustains the ports of Antwerp, Gent, Vlissingen and Terneuzen, as well as rare salt marshes and a growing human population. Figure 1 illustrates the major uses of the estuary. Public awareness on environmental problems, such as chemical and sewage pollution, the loss of rare natural habitats and the transport of hazardous substances has increased. Signifying its ecological importance the estuary comes under the EU habitat directive, requiring spatial compensation with any loss of ecologically significant land. Furthermore the protection from flooding has always been a major concern in the estuary.

In recent years every large intervention or engineering work had to be weighted against these divers interests (Meijerink, 1998). Internationally it is also observed that the management of coastal port areas is subjected to a broader range of economical and social pressures. This gives rise to a shift in management from maximising commercial use to the support of a broader range of uses and users (Vandermeulen, 1992). In addition to commercial nodal points, port areas are increasingly viewed as estuarine environments hosting a delicate ecology whose protection is demanded by a growingly environmentally conscious population (Bowen, 1992).

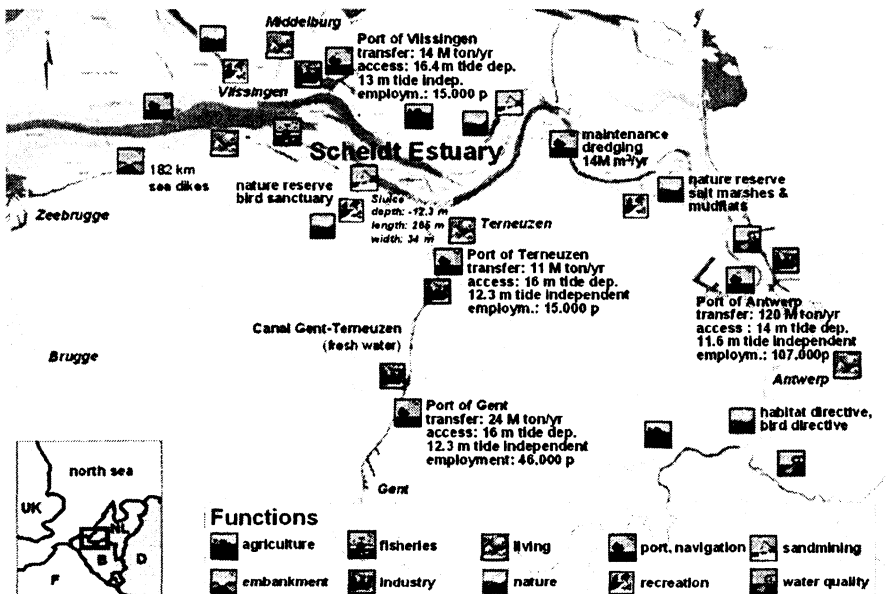


Fig. 1 Location and functions of the Scheldt Estuary



To facilitate policy planning in the Scheldt Estuary, integrating the diverse needs and demands of stakeholders, the Ministry of Transport, Public Works and Water Management of the Netherlands and its Flemish counterpart decided to develop an integral long-term vision on the estuary in 2030. The vision should be guiding to policy makers in both countries. Vision development on the scale of an estuary is a relatively new management approach (Retief and Coetzee, 1999). This article aims to add on the limited material available.

Principal conclusions of the vision project so far are:

- Mutual understanding of the system between the two countries and between the different stakeholders has increased both through a participative project approach and the focussed input from joint scientific research;
- Participants constructively work together on the vision and strive for its authorisation by the respective governments to make the vision a joint basis for future policy making;
- Mutual understanding and a shared and accepted knowledge base can lay the foundation for an agreed upon integral long-term vision. This is felt to be a crucial step in sustainable development of the Scheldt estuary and will facilitate consensus on mid-term strategies balancing safety, environment & navigation.

This article attempts to (i) explain the role of an integral long-term vision in sustainable estuarine management, (ii) describe how the vision is built, (iii) list the provisional results of the vision process, and (iv) evaluate what activities have proven crucial in the development of the vision so far.

2 Vision development

Faced with the increasingly conflicting interests in the Scheldt Estuary, the Minister of Transport, Public Works and Water Management of the Netherlands decided to call for the development of an integral long-term vision. Vision development is a relatively new management approach. This chapter aims to explain what benefits were expected from the vision project in the Scheldt Estuary.

The interpretation of vision development in the Scheldt Estuary is similar to that used in the Long Term Vision for Water, Life and the Environment, which was presented at the World Water Forum in the Hague (March 2000). Here a vision was characterised as a future situation to aspire to. It is stated that development of a vision helps the participants in the vision process to crystallise what they want the future to be (Hofwegen and Svendsen, 2000). Regional visions aim to spur all stakeholders in the region to form and build consensus on the state of the relevant resources in the region in a specific year in the future (GWP, 2000). In addition, it is expressed that vision development requires a systemic approach relying on integrated resource management to replace any sectoral and fragmented management (WWC, 2000).



It is precisely this reasoning that made the Minister of Transport, Public Works and Water Management of the Netherlands decide to start the vision project. It was felt that policy making would be facilitated by an integral long-term vision on the Scheldt Estuary. This was based on the expectation that:

- The vision process will require the involved stakeholders to discover and consider trends, risks and opportunities for the estuary;
- The vision process will improve the stakeholders' understanding of their mutual problems, objectives and constraints;
- The vision process will help to identify a desirable future, to be used as a goal in strategic management;
- The vision can be used as a reference for short term policy planning;

3 Building the vision in the Scheldt Estuary

3.1 The process of vision development

The first step towards a bilateral long-term vision was the design of a framework for the vision. The Dutch consultant Resource Analysis was appointed with the design of the framework. The framework project aimed at building consensus on the criteria that the vision should meet as well as set the framework for the development of the vision itself.

The consultant's approach was to develop and facilitate the design of the framework in close co-operation with stakeholder representatives of both countries. Emphasis was put on common interests and the exchange of information, in contrast with the focus on disagreement, that characterised the negotiations between the Netherlands and Belgium on the Scheldt in the past (Meijerink, 1998).

Participation of stakeholder representatives in the design of the framework for the vision was realised by a round of individual consultations and two carefully designed workshops. Stakeholders in the vision were identified according to their authority and policy with regard to the Scheldt Estuary.

In the consultations an inventory was made of mutual wishes, concerns and expectations with regard to the Scheldt Estuary. The inventory of the consultations was completed with an analysis of existing policy documents. This was the input for the workshops that were facilitated by the consultant. The framework was drafted in the workshops.

The framework covered (i) the organisation of the Dutch-Flemish co-operation, (ii) the objective and time horizon of the vision, (iii) a list of key issues for the long-term vision and (iv) the methodology to realise a common and integrated long-term vision by 2001. The framework was approved by the representative authorities (Project Secretariat LTV, 1999).

Figure 2 illustrates the major steps in the vision development put down in the framework. Provisional reports are prepared with every step in the vision process.

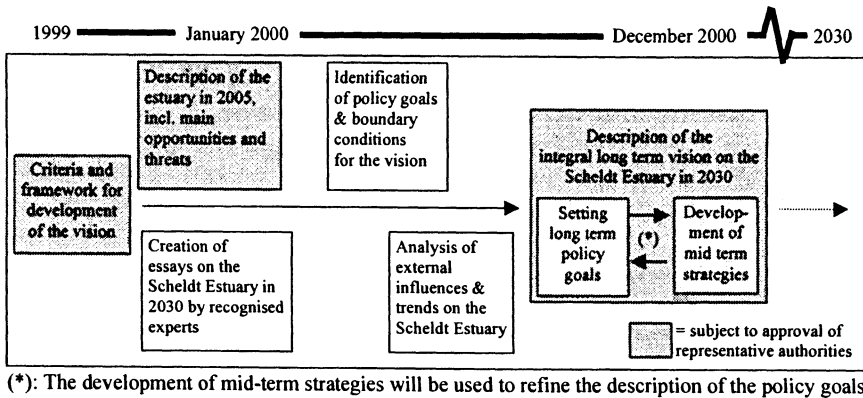


Fig. 2 Major steps in the vision development

The steps outlined in Figure 2 were to ensure that the criteria that were developed for the vision would be met (see also section 4.1). A shared understanding of the estuary was created by the description of the estuary in 2005. To stimulate visionary and creative thinking with the participants in the vision development, ensuring that the vision will not be a mere extrapolation of the existing and well-known trends, recognised scientists were asked to write challenging essays on the estuary in 2030.

In its final form the vision will consist of an agreed upon description of the estuary in 2005, a set of long term policy goals, and a set of alternative mid term strategies to reach these goals.

The participation of stakeholders is outlined in the next section. The next chapter describes the provisional results and first steps in the vision process.

3.2 Participation & institutional arrangements: building a broad basis for the vision

Stakeholder participation is recognised as crucial in the development of the vision. Participation and institutional arrangement are carefully designed to optimise the input from stakeholder representatives. This design is reflected in the project organisation.

The project organisation firstly aims to build a basis for the vision within the relevant government agencies in Belgium and the Netherlands. In addition open communication with representatives of the local and national government and other stakeholders is essential.

It was therefor decided to distinguish between four major levels of participating in the development of the vision:

- The level of bilateral decision makers and politicians, giving their authorisation to the vision;
- The level of bilateral officials, working together in the various working groups that prepare the contents of the vision;

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- The level of stakeholder representatives and local government, that are informed and consulted on the planning and provisional results of the vision;
- A pool of leading scientists and communication experts, supporting the officials in the working groups.

The co-operation within each level is facilitated by the consultant. Officials chair the working groups. Communication between the levels is ensured by the regular exchange of information.

A detailed work schedule describes the inputs and actions of all parties involved. The authorisation of the vision process is ensured by the approval of provisional reports by the bilateral Technical Scheldt Commission (TSC). This commission consists of the high officials of the administrations that deal with Scheldt issues in both countries. It advises on the technical management of the Scheldt and was made accountable for the development of the vision by the responsible ministers of the Netherlands and Belgium.

The provisional reports are prepared within the working groups of expert officials, that also advice the TSC. International scientists and communication experts support the working groups. Prior to their approval provisional reports are discussed with the bilateral steering group of high officials and shared with the local government and other stakeholders. In the Scheldt Estuary important stakeholders for consultation are the Governmental Confer Western Scheldt (BOWS) and the Flemish Integral Water Committee (VIWC), that represent regional and local governments in both countries. Figure 3 illustrates the project organisation and its responsibility.

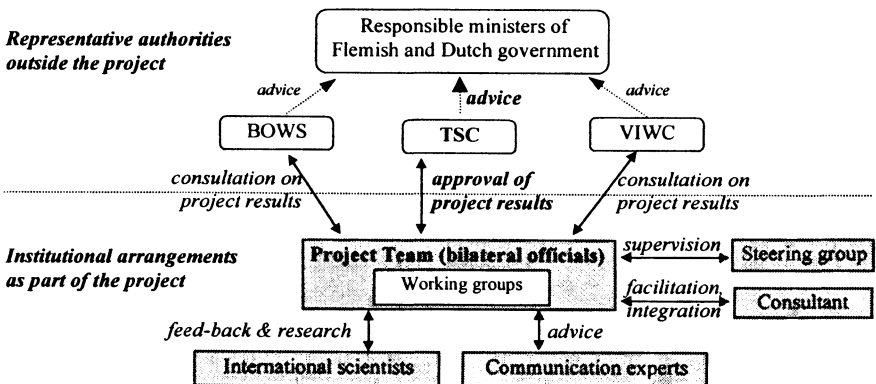


Fig. 3 Project organisation (after Project Secretariat LTV, 1999)



4 Provisional results of the vision process

4.1 Criteria for the vision

The following criteria for the long-term vision were prepared by the consultant in line with the expectations of the representative authorities (see also Chapter 2):

- The vision should be integral and comprehensive. It should cover all relevant issues in a well defined project area, and make choices between the conflicting wishes of stakeholders;
- The project area should be limited not to make the project too all-embracing and exceeding its authority, on the other hand, however, the project area should define a meaningful and to some extent self-reliant region;
- The vision should be developed for a future year that is meaningful from a socio-economic, institutional and environmental point of view. The vision on the Scheldt Estuary will be developed for 2030;
- The vision must be widely supported by the governments of both countries involved, as well as by the people who live in the estuary. This implies that participation of the relevant stakeholders must be suitably organised (Edwards, 1997);
- The vision should concentrate on the essentials with respect to the development of the project area and stand aside of inessentials;
- The long-term vision should be guiding for policy makers affecting the project area;
- The vision should explicitly identify common interest and conflicting interests;
- The vision should consist of an agreed upon future image of the project area and the mid-term strategies, contributing to the vision (GWP, 2000);
- The vision should be approved by both the Dutch and Flemish government by 2001.

4.2 Common objectives and key perspectives of the vision

The starting point of the bilateral vision was defined as "*the development of a healthy and multifunctional estuarine system, which can sustainably support human needs*". This common objective was put down and approved by all parties in the framework for the vision.

At the same time key functions of the Scheldt Estuary were identified. For the purpose of building the vision, three key functions were selected, that have the most important conflicting interests in the Scheldt Estuary. These functions look at the common objective of the vision from a significantly different perspective.

The three key functions and the perspective from which they look at the vision are:

- The function 'water discharge and embankments' that approaches the vision from the perspective of *safety* against flooding;
- The function 'waterway', approaching from the perspective of *navigation* to and from the major ports in the estuary within acceptable transport risks;
- The function 'nature', from *environmental quality* for a flexible water system.

For each perspective a working group with senior officials was established. The bilateral project team decided that the vision should be developed from the integration of the three different perspectives given the socio-economic context of the Scheldt Estuary. This is illustrated in Figure 4.

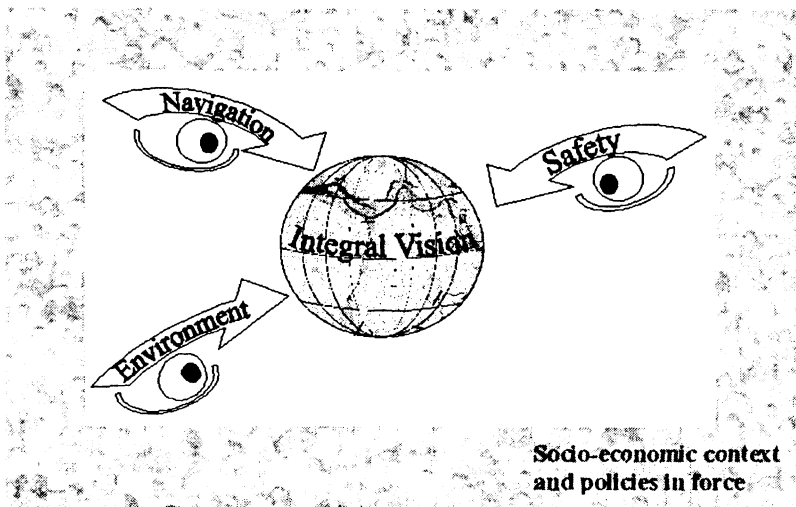


Fig. 4 The three key perspective that the vision is built from

4.3 The essence of the starting point: Situation in 2005

An important requirement for building the vision is a commonly shared understanding of the estuary. The consultant Resource Analysis, together with the various parties involved, described the Scheldt Estuary in 2005, on the basis of the present situation, policies in force and the most certain developments.

The working groups gave input into the description of 2005, starting from the perspectives of *safety*, *environment* or *navigation*. To describe the estuarine system as a whole the working groups' contributions were integrated with an understanding of the other functions of the estuary (e.g. tourism and fisheries) and of morphology.

Results were shared with all stakeholders. The description of 2005 can be amended, according to newly gained insights and the results of upcoming research.



4.4 Identification of conflicting and common interests

The common objective defined in the framework, is presently translated into a set of boundary conditions for the vision from the perspective of navigation, environment and safety. Thus common and conflicting interests are discussed and threats and opportunities for an integral and commonly shared long-term vision are identified.

This part of the vision building process underlines the necessity of an integral approach of the Estuarine system. By focussing on the common interests and conflicts, a controversial issue like the deepening of the navigation channel of the Scheldt is put into the perspective of its benefits for navigation and its objectionable effects on the environment and on safety. Furthermore deepening is treated together with other interventions in the system and their mutual effects. The discussions have opened the way to signal opportunities for one shared vision by 2001.

5 Discussion

Flemish and Dutch officials have been working closely together for two years to build a long-term vision that will be guiding for policy makers in both countries. A number of activities have proven crucial in developing the vision so far:

- 1) Setting common objectives and project planning at the start of the project with all relevant actors participating. This phase of the project required strong facilitation by an independent consultant;
- 2) The selection of a limited number of key perspectives from which to develop the vision, as well as a definition of the project area and time horizon;
- 3) The approval of project planning and organisation by the representative authorities;
- 4) Flemish and Dutch senior officials of different departments collaborating in working groups in the process leading up to the vision. Input from international scientists and additional research stimulated new insights in the working groups;
- 5) The preparation of clear and concise reports integrating the results of the working groups. Provisional reports should be inspiring and well prepared to engage the participants in the vision project and increase the common understanding of the system and of the mutual objectives and interests. An external consultant was responsible for the integration and for controlling the time schedule. Provisional results so far are a description of the estuary in 2005, the identification of common and conflicting interests and the boundary conditions for the vision in 2030;
- 6) Seeking approval by the representative authorities and national policy makers of the provisional reports and the working plan;
- 7) Informing other stakeholders on the basis of the provisional reports. Communication experts advice on the communication process;
- 8) Keeping the work schedule flexible, depending on the approval by the different parties, and the institutional setting.



Following these activities the common understanding of the system and of the mutual interests has increased. Participants constructively work together on the vision and strive for its authorisation by the respective governments to make the vision a joint basis for future policy making. Participants are dedicated to a rapid policy development process of less than 2 years. Mutual understanding and a shared and accepted knowledge base lay the basis for formulating a set of long term policy goals. The vision process is expected to support sustainable development of the Scheldt estuary and to facilitate the development of mid-term strategies balancing safety, environment & navigation.

After all parties have embraced the vision in 2001, the next step will be to elaborate on mid term strategies contributing to the vision. The ease by which these strategies can be agreed upon by bilateral and multi-sectoral officials will be the final test of the vision development.

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