

ECOLOGICAL REHABILITATION OF THE SCHELDE ESTUARY (THE NETHERLANDS-BELGIUM): LINKING ECOLOGY, SAFETY AGAINST FLOODS AND ACCESSIBILITY FOR PORT DEVELOPMENT.

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The Long Term Vision for the Schelde estuary (LTVS) was determined as "the development of a healthy and multi-functional estuarine water system that can be utilized in a sustainable way for human needs". This Dutch-Flemish managerial plan sets quality targets for the condition of the estuary by the year 2030 and the management measures to achieve them. Targets were developed and integrated from three central perspectives: accessibility of the ports, safety against floods in the densely populated catchment and ecosystem health. This study focuses on the ecological rehabilitation of the estuary and the creation of sustainable nature, seeking possible alliances with security measures against floods, navigation requisites for port activities and enhancement of the estuaries educational and recreational values. The estuary and its valley are subdivided into ecological relevant zones. For each zone goals in terms of physical, chemical and ecological processes are prioritized. Evaluation methods and key parameters are proposed for most attributes of the estuarine functioning. Rehabilitation measures with maximal contribution to the priority goals are identified for each zone. Spatial analysis of the study area indicates optimal areas for the implementation of these measures. To exemplify the array of possibilities on an ecosystem level two different rehabilitation plans are proposed. The potential contribution to the rehabilitation of the estuary is compared for both alternatives.