



Demonstrating Building with Nature at coastal sites

The Building with Nature project demonstrates Building with Nature solutions at seven coastal target sites in the Netherlands, Germany, Denmark, Sweden and Belgium. These 'living laboratories' provide an evidence-base for effectiveness, designing measures, calculating costs, benefits and site selection.

The coasts along the North Sea region (NSR) consist mainly of sand. For many countries in this region, over several decades, adding sand to the coastal system has been a way to:

- maintain their coasts
- compensate for coastal erosion
- ensure coastal flood-risk protection
- facilitate other functions like recreation, nature and supplying fresh water inland
- increase resilience to climate change, and to a rise in sea level in particular

This type of coastal management is often described as 'Building with Nature'. Although the solutions countries use are the same, the way they implement them and observe the behaviour of the nourishments is different.

Gathering knowledge

The Building with Nature project focuses on these observed behavioural differences in beach and

shoreface nourishment with respect to local coastal characteristics and the effects of eelgrass to counteract erosion. At the Wadden Sea coast water authority Noorderzijlvest has started the installment of a double levee. This project aims to reduce engineering costs and gain advantages of mud sedimentation and saline agriculture. A thorough understanding of the coastal system is needed to be able to make the sandy coasts of the NSR more adaptable and resilient to the effects of climate change. This knowledge is gathered by assessing the measure implemented by the project partners. These are the organisations responsible for coastal management along the North Sea coast in Sweden, Denmark, Germany, the Netherlands and Belgium.

North Sea Region nourishment guidelines

To improve the effectiveness of the flood-protection measures, coastal zone managers are attempting to understand regional morphologic differences with respect to nourishment and hydrodynamic forcing. The project aims to reveal links between presumable driving parameters and observed nourishment behaviour through shared methodology and state-of-the-art analyses. The results will contribute to the effectiveness of Building with Nature Solutions and will be incorporated in North Sea Region nourishment guidelines.



Living laboratories for Building with Nature in the NSR

Contact

Rijkswaterstaat — Quirijn Lodder, project leader coastal sites — +31 (0)6 115 34 220
 quirijn.lodder@rws.nl — www.northsearegion.eu/building-with-nature

Partners

The following partners are sharing knowledge and providing critical mass for the adoption of the Building with Nature philosophy in coastal areas:



AGENTSCHAP
 MARITIEME
 DIENSTVERLENING en
 KUST

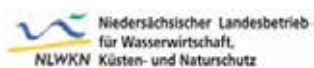


Vlaanderen
 is maritiem



Länsstyrelsen
 Skåne

Waterschap NOORDERZIJVEST



Ministry of Environment
 and Food of Denmark
 Coastal Authority

