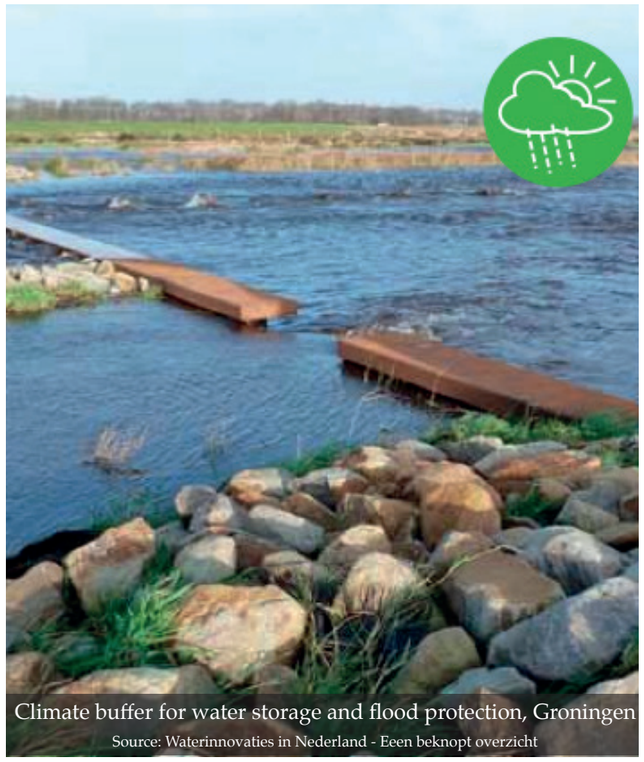
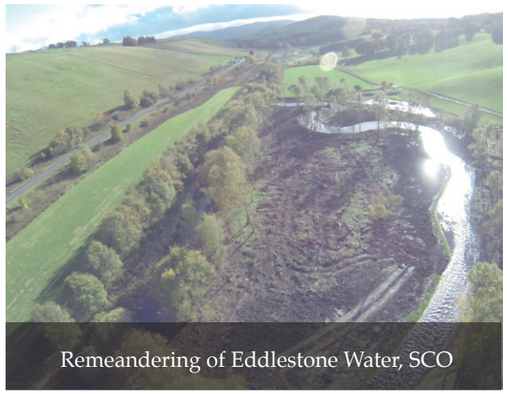
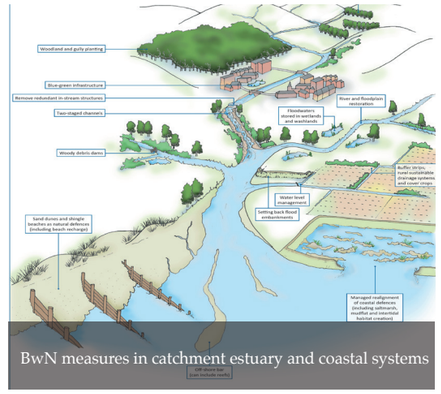
Building with Nature

Programme	NSR
Duration	4 years
Project partners	below
Coordinator	RWS

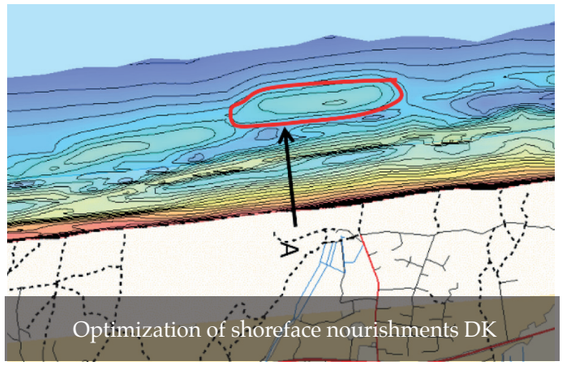

Climate buffer for water storage and flood protection, Groningen
Source: Waterinnovaties in Nederland - Eeen beknopt overzicht


Structural erosion of Beach in NL

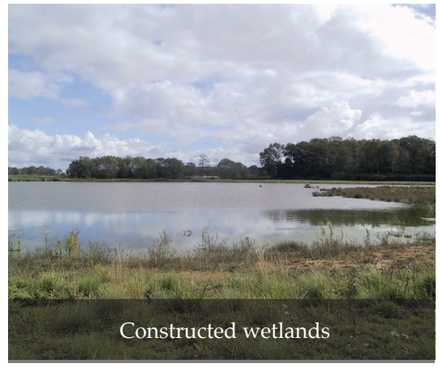

Remeandering of Eddlestone Water, SCO



BwN measures in catchment estuary and coastal systems


Optimization of shoreface nourishments DK


Sand-engine for innovative coastal protection


Constructed wetlands

Background

The most serious threat facing the North Sea Region (NSR) is climate change, increasing flood and coastal erosion risk from storm surges in coastal and estuarine areas and heavy rain causing flooding of rivers and lakes inland. The Building with Nature (BwN) project demonstrates BwN solutions that utilize natural processes to deliver flood risk and coastal erosion management whilst enhancing ecosystem services: enhance nature, deliver economic & social benefits. However, the performance of BwN solutions is uncertain and hampers wider uptake across NSR. A common transnational evidence base is needed to justify investments and optimise the effectiveness of BwN solutions.

Aim

The overall objective is to make coasts, estuaries and catchments of the NSR more resilient to climate change through both the application of and the learning from the implementation of BwN measures. The project will reduce flood and coastal erosion risk and increase adaptability directly at the target sites. The laboratories generate the evidence-base and are all already part of, or will support incorporation of BwN in national investment and policy programmes of all NSR countries. Opportunity mapping and business case development is targeted at wider uptake in practice.

Approach

BwN will demonstrate climate change solutions at 7 target sites in NL, D (SH & NS), DK, UK and SE in coastal living laboratories (North Sea Coast and Waddensea) and at 6 sites in B, NL, SE, and Scotland in catchment living laboratories.

They comprise large-scale existing investment projects that will be leveraged and enriched with transnational best practice, performance monitoring and co-analysis, cost-benefit analysis and business case generation.

Results

- Delivery of 13 demonstration projects in various NSR countries.
- Analysis of performance, costs and benefits (incl soft benefits), creating business cases for the demonstration projects. Possible spin-off results in terms of methods and tools.
- Inventory of legal and governance barriers for various contexts: physical system, institutional, etc. Policy learning network established to address these.
- Guidelines and references for upscaling and wider uptake, with the use of opportunity mapping and tested business case development.

Impact

A paradigm shift is accomplished through real demonstration projects and anchored in policy and practical guidelines. Natural processes and ecosystem services will be used for flood risk mitigation in combination with hard engineering.

This also leads to increased adaptability, cost reductions and provides additional benefits.

The lessons and references provide International (business) opportunities for replication and up-scaling.

Interreg North Sea Region
European Regional Development Fund

Partner:

Rijkswaterstaat
Ministerie van Infrastructuur en Milieu

UNESCO-IHE
Institute for Water Education

VLAAMSE MILIEUMAATSCHAPPIJ

Länsstyrelsen Skåne

NVE

Common Wadden Sea Secretariat

Agentschap Maritieme Dienstverlening en Kust
Vlaanderen is maritiem

Kystdirektoratet
Danish Coastal Authority

Waterschap Noorderzijlvest

EcoShape
building with nature

The Scottish Government
Riaghaltas na h-Alba

NLWKN
Niedersächsischer Landesbetrieb für Wasserwirtschaft, Küsten- und Naturschutz

LKN.SH
Agency for Coastal Defence, National Park and Marine Conservation Schleswig-Holstein

SEPA
Scottish Environment Protection Agency

TWEED FORUM

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