

CASE STUDY: IJssel River basin, The Netherlands

DEMONSTRATOR B

Responsible partners: **TAUW** (Floris Boogaard)



NBS Description

The IJssel River basin project ("Stroomlijn") is implemented under the banner of the 'Room for the River' Programme.

In the IJssel project area (blue square in figure) it rains more often and with higher intensity. As a result, rivers are often confronted with high water levels. If the water flows into the floodplains, vegetation can impede the water flow, leading to a raise in water levels and an increase of the flood risk.

We focus on innovative 'room for the river' by means of vegetation management of 300 hectares dealing with >10 disciplines and multiple stakeholders from public and private sector. The project focuses on the removal of vegetation within the floodplains in places where the river flows fastest at high water levels.



Benefits and co-benefits

- Flood reduction
- Nature based maintenance
- Waterquality improvement

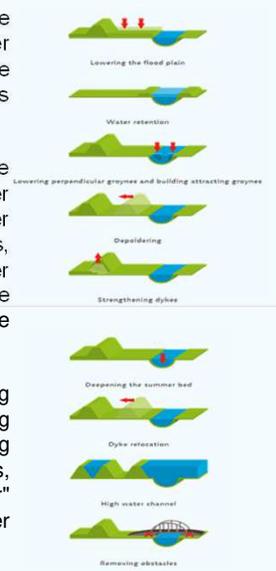
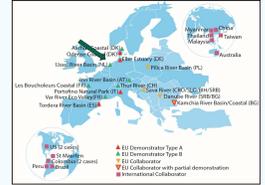
'Room for the River' Programme

The Rhine delta experiences annual flooding. In 1993 and 1995, floods threatened to devastate regions surrounding the delta.

Climate change is ongoing, and as the river floods each year the water distributes sediments throughout the floodplain, reducing the space that was initially allowed for annual floods.

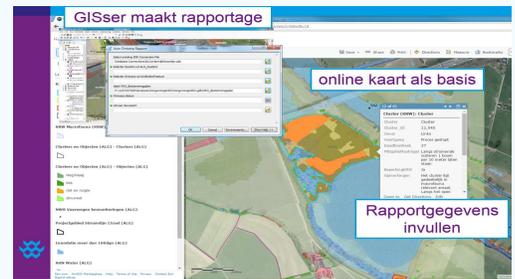
The goal of the Dutch Room for the River Programme is to give the river more room to manage higher water levels. At more than 30 locations, measures are taken to give the river space to flood safely while at the same time improve the quality of the immediate surroundings.

Measures include: placing and moving dykes, depoldering, creating/increasing the depth of flood channels, reducing height of groynes, removing obstacles, and the construction of a "Green River" (flood bypass). This will result in lower flood levels.



Work within RECONNECT

- The RECONNECT demonstration activities will monitor and evaluate the co-benefits of maintaining the vegetation in the river bed and floodplain (300ha) (*smart vegetation management*).
- Innovation in monitoring will be pursued ranging from large scale activities (satellite images) to detailed scale actions by the means of the (underwater) drones.
- Detailed reports on the evaluation in RECONNECT will be made in GIS for a international knowledge sharing with RECONNECT partners.



Key actors

TAUW, Rijkswaterstaat (RWS)

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| <ul style="list-style-type: none"> ➢ Monitoring: <ul style="list-style-type: none"> - TAUW - WDOOD/RWS - INDYMO | <ul style="list-style-type: none"> ➢ Installation: <ul style="list-style-type: none"> - TAUW - WDOOD/RWS |
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Key innovations and upscaling

- Flagship project of the Dutch Government Innovative monitoring technology and methods.
- Front runner in NBS implementation, with high upscaling potential.