

Climate dike

Status	Study/realisation planned 2014-2015
Location	The Netherlands, Gelderland, Tiel, Tiel East, from harbour to Amsterdam Kanaal
Spatial info	Town; Residential area
Measure type(s)	Green open spaces; Urban water spaces – flowing water (seepage water); Urban setting
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Description and Aim

A climate dike is a very wide dike that combines safety aspects, (flooding) and the reduction of water nuisance (seepage water) with multiple use of land.

To protect Tiel East from flooding in the far future due to climate change, a strengthening of the current dike is necessary. Instead of heightening the dike, Tiel wants to create a dike that is very wide. This not only strengthens the dike but it also creates possibilities for multiple use of land and it reduces the problems caused by seepage water.

Adaptation to climate change

River level rising. The climate dike improves the safety of Tiel East. It alters the length of the path of the seepage water. It adds more green to the area.

Problems addressed:

Heavy precipitation / flooding, storm, other: seepage water, lack of green

Receptor(s):

Built environment, economy, infrastructure, population

Experiences

Functionality and further synergies/benefits:

The climate dike improves the safety and increases the liveability if the area (10 times better, 100 times safer). It creates space for new sustainable houses in an exceptional area.

The climate dike also helps to reduce the constant flow of seepage water by 6% which causes less water nuisance in the urban quarters behind the dike.

The climate dike in Tiel East will be the first in The Netherlands. It is also a Dutch national pilot project of building in flood plains.

The Cool Nature park is part of the climate dike and offers space for recreation, more green public space, a playground and a place to cool down during hot days.

Costs:

Estimated at € 500.000 for external experts and € 7 million for investments.

Realisation is planned in 2014-2015.

Stakeholder involvement:

Province, Rijkswaterstaat, waterboard, municipality of Tiel, project developers.

Acceptance:

The social acceptance of the climate dike is higher than it would be in case of just heightening the dike. The inhabitants of Tiel East clearly see the benefits of building on top of the climate dike and the creation of more recreational space.

Obstacles/restrictions:

Legislation (water related) is a problem, high investments, and difficult negotiations with project developers.