



REsilienT water gOvernance Under climate Change within the WEF E NEXUS: HNK case study



RETOUCH NEXUS

Hoogheemraadschap Hollands Noorderkwartier



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THE RETOUCH NEXUS PROJECT



CASE STUDY OVERVIEW

THE CASE STUDY IN A NUTSHELL

The water authority Hoogheemraadschap Hollands Noorderkwartier (HHNK), responsible for water quality and quantity management in the province of North Holland, will manage the Dutch case study and will be supported by the academic partner VUA.

HHNK has high ambitions in terms of circular use of water resources. The managing, utilizing and returning of (raw) materials through extraction from the water cycle form a new path that water authorities explore. A business plan has yet to be developed for the sale of materials from water bodies under HHNK's management.

The major challenge we face as a water manager is the transition to a sustainable circular water system. We can only do this together with our environment. That is why we are now investing in our organization and in the development of the environmental scan tool. HHNK looks towards developing sustainable ways to manage, utilize and allocate the fresh water supply in the area.

CONTEXT OF THE CASE STUDY

The case study focuses on the water authorities that are responsible for water management in the province of North-Holland, however except for the city of Amsterdam. The area has 1.2 million inhabitants and lies 75% < below sea level.

The responsible water authorities are facing several challenges in terms of the WEF E-nexus, including flood risk management, safeguarding water quality, and protection of vulnerable habitats in nature reserves.

Currently, HHNK's major challenge is on the Fresh water supply and quality with rising population numbers and consequent housing issues as well as the increase of large-scale industries in the area in combination with longer periods of drought leading to a serious decline in the fresh water supply.



CONTRIBUTION

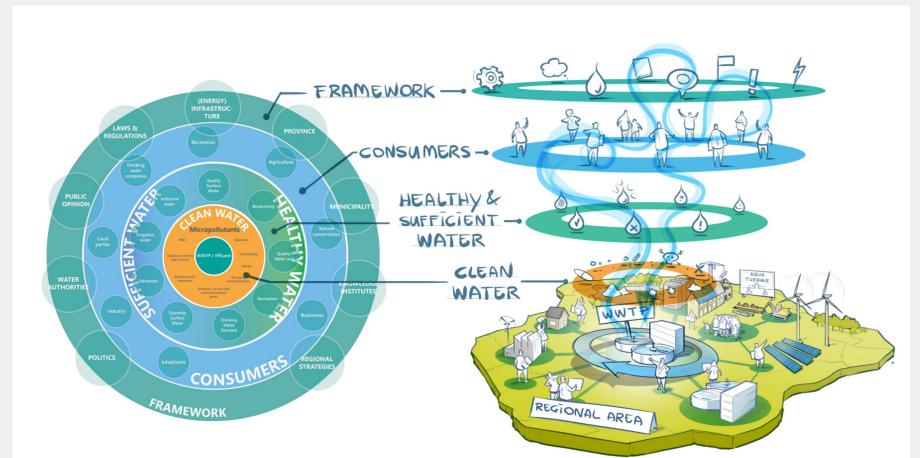
METHODOLOGY & EXPECTED RESULTS

Yet to be specified for exact case study with VUA.



LOCAL WATER GOVERNANCE SYSTEMS ANALYSIS

Yet to be specified for exact case study with VUA. HHNK is now developing the environmental scan tool (see figure below).



LOCAL INDICATORS USED FOR MONITORING WATER GOVERNANCE

HHNK governing area is 196.600 hectares big of which 34.050 hectares lies in urbanized areas. 28 municipalities make up the governed area in which 1.17 million inhabitants live whose waste water is treated by HHNK. With 15 wastewater treatment plants we purify over 100 million liters of waste water per year.

In the area, 8% of the area is made up of surface water which is managed by HHNK (in terms of levels, quantity and quality).

STAKEHOLDER ENGAGEMENT & PUBLIC PARTICIPATION ANALYSIS

HHNK aims at a holistic approach and creating positive impact and doing so in close collaboration with the stakeholders in the area such as other governmental bodies (province, municipality), drinking water company (PWN), private parties and grassroots initiatives.

References:



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