



Wetskills-The Netherlands 2017

Overview of Study Cases

Case 1: Stimulating a sustainable positive 'green' behavior for stakeholders

Case owner: Water Authority Hollands Noorderkwartier (HHNK)

For almost 50 years HHNK has been working on improving the water quality in the Northern part of the province North-Holland. At first surface water was black, then became green and is now becoming even clearer. However there is still room for improvement. A large part of this improvement is the mentality of North-Hollands citizens, farmers and industries. For that reason HHNK is looking for a tool by which we can stimulate or facilitate positive sustainable 'green' behaviour.

Case 2: Will you unleash the energetic potential of small streams?

Case owner: VP Delta

The flat Netherlands is a small delta country, shaped by lowland rivers flowing into the sea. This country, full of innovation power in water management, has several companies developing hydropower stations requiring minimal hydraulic head, ideally for the Dutch context. Globally, hydropower stations have almost exclusively been placed in large dams or rivers with high discharges. Can you come up with international business strategies for these small hydropower stations and help these stations create a large impact in the world?

Case 3: Saving the city lake from Ahmedabad for polluted water (India)

Case owner: Centre for Environment Education

The City of Ahmedabad is the third fastest growing cities in the world with almost 400,000 new inhabitants each year. Good water quality is inevitable to provide its citizens good drinking water and safe environments. Mean threats for the water system are the seawater intrusion, depletion of ground water, industrial effluents and sewage wastewater. Especially the effluents pollute the river causing health hazards to the people residing near the outlets and destroying the ecosystem. During monsoon the 26 city lakes are filled with floodwater mixed with polluted river water. Solutions are requested for safeguarding the city lakes from contamination of wastewater and to know how they socio-politically can be conserved. (Note: This case is the winner of the Chasing Water Dreams Competition.)



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Case 4: Increasing fish migration to comply with the EU directives

Case owner: **Waternet**

To achieve the goals for the EU Water framework and EU Eel directive, measures have to be taken to improve the possibilities for fish migration. In Dutch poldersystems the watersystem is very fragmented. Many dams and weirs form barriers for fish. Waternet challenges their team of young water professionals to design a new or improved way to create fish passages at weirs in polder systems. Existing techniques are not used often, because of unwanted effects on waterlevel, waterquality and relatively high costs.

Case 5: Taking climate adaptation measures: A public or private matter?

Case owner: **Water Authority Drents-Overijsselse Delta**

Climate change leads to heat stress caused by higher temperatures and flooding because of extreme showers beyond the capacity of the drainage infrastructure. Climate adaptation measures are necessary to deal with these effects of climate change. However, both the government and the private landowners could take adaptation measures. WDOD would like an advice to support decision making on when to take stimulate climate adaptation measures in the public and when in private areas.

Case 6: Decentralized water solutions for neighborhood participation

Case owner: **Province of Flevoland & Water Authority Zuiderzeeland**

The (future) inhabitants in Almere Oosterwold (4300 hectares, 15.000 households) are in charge of to create their own livelihood without support of the municipality, including wastewater services. Most inhabitants install a decentralized wastewater treatment system. This might cause pollution of the surface water. Current monitoring is expensive, so only 5 locations are yearly tested 12 times. The new 'Living lab Oosterwold' programme aims on real-life testing of innovative sanitation systems in coming years. How can we better and simpler monitor the water quality and invite the inhabitants to monitor their sanitation system?