

Katwijk Integrated Coastal Works

In partnership with the OECD Studies on Water: Stakeholder Engagement for Inclusive Water Governance

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Organisation: Rijnland Waterboard

Country: Netherlands

Level of government: Local government

Sector: Environmental protection

Type:

Launched in: 2008

Overall development time: 7 year(s)

Link to the innovation's website

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Description

In 2008, the Dutch water authority of Rijnland in the Netherlands launched a project on integrated coastal works with the objective to strengthen primary water fences near the municipalities of Noordwijk and Katwijk. The project included the development of an innovative three-dimensional vision game.

Game sessions were organised by the regional water authority to invite small groups of stakeholders to participate. Overall, 75 people attended including local officials, restaurant and hotel owners, inhabitants, non-governmental organisations (NGOs) and local business. Participants were given certain budgets and were tasked to develop innovative water fencing solutions.

These exercises contributed to raise awareness among stakeholders involved regarding their respective interests. It also led the regional water authority to move from sharing messages to facilitating communication process with the objective to create ownership of the outcomes among stakeholders. Outcomes of these playing sessions showed that creative solutions had emerged which were later considered by the regional water authority in the project.

As an example, stakeholders involved in the game suggested to find additional space for an underground parking garage which was later one built to welcome 650 cars in the inner zone of the dune. The simulation game also helped regional water authorities build lasting relationships with stakeholders and foster better communication between actors working and living in the coastal area.

Why the innovation was developed

- In the Netherlands, we have a system of primary water fences. In the area of the Waterboard of Rijnland we had two weak links in the coastline near the municipalities Noordwijk and Katwijk. In Noordwijk, we finished a project in 2008. In Katwijk the design is finished and the works will be finished at the beginning 2015.
- What we try to do in all these projects is integrate water safety and spatial value. In Noordwijk, a hybrid water fence was designed. This consists of a sea dike covered with a sandy dune. We designed this system for a storm that could occur once in 10 000 years. After 8 hours of the erosion process of the sandy dune, the sea dike will be functional. The alternative solution for this system is to use more sand.
- A hybrid waterfence is used in Noordwijk (dike in dune). In Katwijk, we also used the hybrid water fence but also introduced a more innovative stakeholder involvement. After a stakeholder analysis, we involved the stakeholders by using a 3-dimensional vision game.
- Introduce a few spatial elements and create an integrated design. By creating an integral plan, we are able to create more spatial and economic value for the local municipality and more water safety for the west of the Netherlands.
- Waterboard Rijnland: custodian of the waterfence and initiator of the project
- Katwijk Municipality: custodian of the spatial quality
- Zuid Holland province: Acceptance of the Environmental Impact Assessment and the plan for reinforcement of the coastal zone.
- National government (Rijkswaterstaat/Min. I&M): financing partner and responsible for technical standards.
- Owners of the beach restaurants.
- Hotel owners on the boulevard.
- Restaurant owners of the boulevard.
- NGOs.
- House owners on the boulevard.
- Enterprises of Katwijk.

Results

Efficiency

- Cost-saving: EUR 1.5 million through the social cost and benefit analysis.

Effectiveness

- Sustainability/resilience: The solution is fit for the future and adaptable for a sea-level rise in 50 years. By taking mitigation measures, the economy of the beach and economy of the village will benefit from the newly created environment. The total area for nature has also been increased. More underground space is created for parking places.
- Capacity-development: Skills of the project team were developed.
- Broader economic development: Co-operation between the municipality, waterboard, province and National State was improved.

Service quality

Responsiveness:

- Acceptability/ownership of stakeholders involved: A lot of synergy was created in the political process (four independent governments). The number of declarations of objections against the plan was rather low.

Development

Design

Water safety and climate change has been the driver for the project. A higher sea level and more severe storms are expected in the Netherlands. After an assessment, we found that reinforcement of the coastal defense was needed. New Delta technology was added. More space was needed. And there was a need of to compensate for the loss of identity of the municipality.

Implementation

Tools used:

- In Katwijk, we played a 3-dimensional vision game. We used small elements and invited 75 people from all groups of stakeholders.
- Owners of the hotels, owners of the restaurants on the beach, politicians, inhabitants and so on. We played 3 sessions with 3 small groups.
- Every group was given a certain budget for building it's own water fence including the spatial elements. We found that the groups with the small budget found a few creative solutions.
- The group with the large budget did not spend all of this budget. By following this game, we discovered creative solutions such as space for a parking garage.
- The other important issue is that we created a more positive atmosphere around the project. By playing these games, stakeholders did not react against us as a government but stakeholders started to discuss with each other and we as a government had the role of the facilitating partner in finding the best solution for society.

Resources used:

- The project is financed as far as the hybrid sandy waterfence by the ministry of I&M including the necessary sand supply before the coast.
- The extra costs of the dike in dune is financed mainly by the municipality of Katwijk and the province of Zuid Holland.
- The parking garage, with a netto gain of 400 parking spaces is financed by the municipality of Katwijk.

Challenges and solutions

- Conception/design: The National State as a general policy was not willing to pay for other expenses than water safety. The financing for spatial development came from the municipality, the province and the waterboard.
- A lot of discussion took place, a social cost and benefit analysis, and visual tools were used. In the end, all four parties shared the expenses.

Lessons Learned

Lessons Learned

- By using games, stakeholders were more engaged, effective, and cooperative with the water board towards finding a mutually beneficial solution.
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Conditions for success

- The steering committee, the introduction of the game exercise, and the political will of all four parties to find a solution were key conditions for the success of the innovation.
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Other information

This experience can be replicated by the use of a game which is modeled for the particular situation, the use of a stakeholder analysis, and good management of the creative process.

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