

Factsheet Business Case Hondsbossche Dunes

About Hondsbossche Dunes

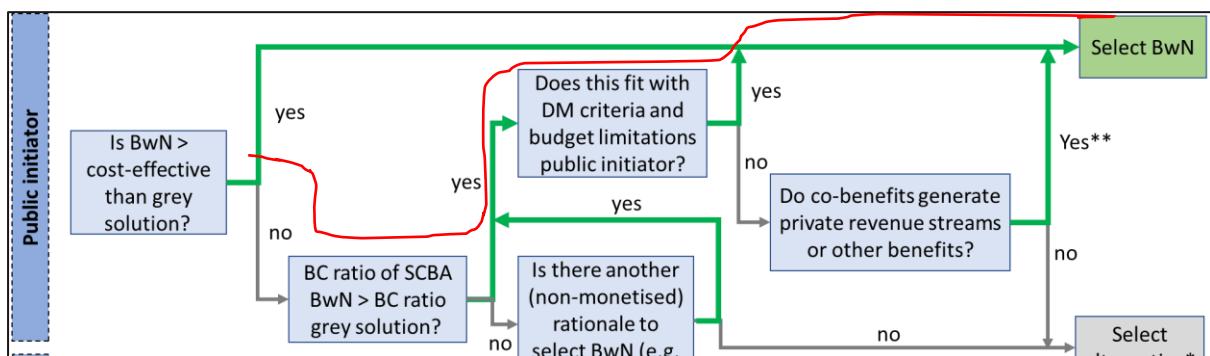
The Hondsbossche and Pettemer sea dike (see Traditional Design) did no longer meet current safety standards. Therefore, the dike was reinforced in 2015 with a soft, natural barrier of 30 million cubic metres of sand on the seaside of the dike. The resulting area was renamed 'Hondsbossche Dunes'. The construction presented the unique opportunity to study the development of dunes and nature following a large sand nourishment.

The Ecoshape innovation project is a three-year interdisciplinary study of the area focusing on the development and perception of nature and the morphological development of the area. The aim of the innovation project is to learn more about efficient sand-nourishment with added value for nature and leisure.

Business case approach

What type of business case was used to compare BwN to alternative solutions, and what role did it play in realizing funding for the project?

A societal cost-benefit analysis (SCBA) was performed to select the best approach. With this SCBA, five alternative approaches were investigated. The SCBA did not play a major part in realising the funding, since the funding from the national government was already secured when the coastal section was designated as 'Weak Link'. The SCBA was performed to make sure that the money would be spent in the best way, to deliver an effective solution with the highest increase of societal welfare. (ref: MKBA Zwakke Schakel Hondbossche en Pettemer Zeewering)



Reason for investors to select BwN approach

The main reason to apply BwN is because this approach serves not only the goal of flood safety but also upgrades the environment for recreation and nature. With the societal cost-benefit analysis, this type of design was selected as best alternative. Other alternatives would cause too much impact on the inside of the dike, would not provide adequate safety and/or could intensify erosion. The selected design had multiple benefits: it creates opportunities for nature, recreation and tourism; it has minor impact on the environment; there was a small risk of project delay; there was a broad support from stakeholders; the construction could be ready before the end of 2015; the design was

easy to adapt (future climate changes); ...verification...: straight forward; in line with our governmental policy; and proven method.

Coping with uncertainty in the business case

The uncertainty in how much sand transport would take place, and the fear of inhabitants of increased sand nuisance led to the decision to adjust the design with respect to trapping sand.

Barriers and opportunities in BC approach

In hindsight, would you have chosen a different business case approach?

Finance

Who funded the project and how was the financing arranged?

The budget that was made available for construction plus 20 years of maintenance was 250 million euros. This was funded by the HWBP programme.

The monitoring programme was funded by EcoShape (50%) and RWS (50%).

Project	Funder	Source of finance	% of initial investment costs	Motivation	Type of finance (choose from figure #)	Conditions of finance
<i>Hondsbossc he Dunes</i>	RWS	<i>Hoogwaterbeschermings-programma (HWBP)</i>	<i>100% (?)</i>	<i>The project objectives of flood risk reduction contribute to the HWBP obligation for dike strengthening.</i>	<i>Public - Domestic government</i>	<i>Grant, with condition that project goals are achieved</i>
Monitoring programme						
Innovation project	EcoShape	Diverse (partners), part In-kind	50%	Develop knowledge on innovative dune construction projects.	Business	1/3 In kind
	RWS	HWBP	50%	Monitor and evaluate effectiveness of the project.	Public-Domestic government	

What are the motives to invest in BwN?

Most important factors to convince financiers were:

1. Ecological gains
2. Recreational gains
3. Stakeholder support

Barriers and opportunities in financing BwN

The fact that this part of the coastline was designated as a 'Weak Link' in 2004, made the location into a priority for funding within the HWBP.

Procurement, how is it arranged and does it affect the BwN approach?

The type of contract was a design, build and maintain contract with an agreement on the construction and an agreement on the maintenance for 20 years after construction. The maximum value of the contract was 143 Million euros.