Rijkswaterstaat
Ministry of Infrastructure and the Environment

Sustainability Check

Creating opportunities for sustainability: people, planet, profit

Sustainability plays an important role in an increasing number of Rijkswaterstaat – the executive agency of the Dutch Ministry of Infrastructure & Environment - projects. But when can one say a project is sustainable? To help answer this question, Rijkswaterstaat has developed a tool called the Sustainability Check (in Dutch: Omgevingswijzer). This tool analyses the degree of sustainability of spatial planning projects, like those included in the Planning Programming Budgeting system for national infrastructure and spatial development (in Dutch: MIRT). The Sustainability Check is intended to stimulate awareness of and debate about sustainability and achieve this in a structured way. Furthermore the Sustainability Check provides support for jointly (with the stakeholders) identifying sustainability options. The tool provides information about the ecological, social and economic aspects of a project (people, planet, profit), which together determine the project's sustainability. The tool is available to use at www.omgevingswijzer.org (currently only in Dutch). The Sustainability Check is part of the Dutch Sustainable Infrastructure Program (in Dutch: Aanpak Duurzaam GWW).

How does the Sustainability Check add value?

A number of Rijkswaterstaat highway projects took advantage of the Sustainability Check. It can be used to make a chart of potential local opportunities for sustainable area development, either before the start of a project or before the next phase of a project. This information is a good point of departure for discussing these opportunities – and any associated risks – with the contracting authority and the various regional parties. This is crucial to the process of making firm agreements about which party is responsible for achieving which objectives. This approach avoids unpleasant surprises at a later stage; during the spatial planning procedures for example.
The level of integration offered by the Sustainability Check also helps to improve efficiency. Different sustainability aspects can be linked within a project to create synergy and capitalize on latent benefits.
As the Sustainability Check assesses projects from multiple perspectives, it quickly uncovers attractive opportunities for greater spatial cohesion and achieving enhanced cost efficiency.

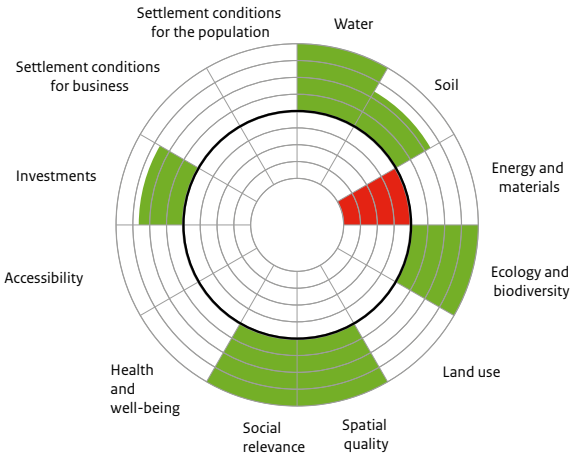

*Figure 1: The **Omgevingswijzer** and its twelve sustainability factors*

Using the Sustainability Check

The Sustainability Check visualizes the impact of a project on sustainability in a "Results Wheel" (figure 1). The wheel displays twelve themes, four in each of the sustainability categories of people, planet and profit. Each theme contains a number of basic sustainability principles. The tool considers these sustainability principles and assesses the project in hand as "positive", "neutral" or "negative". The results are indicated by the color of the Results Wheel. Green signifies a positive effect and red indicates a negative impact. The assessment must be supported by an explanation. Both the assessment and the explanation can be saved for future reference. Please refer to www.rws.nl/omgevingswijzer for further information (in Dutch).
While an individual is certainly capable of assessing all the sustainability principles of a project using the Sustainability Check, the tool is most effective when fed with input from a group of stakeholders. For example, the project team together with the external parties that are involved. Assessing a project based on its sustainability principles encourages sharing knowledge. The result is a structured discussion about sustainability and the associated opportunities - the primary objective of the Sustainability Check.

The Sustainability Check in practice

A27 Merwede bridge

The Merwede bridge near Gorinchem is a major bottleneck on the route taken by the very busy A27 highway in the Netherlands. Traffic jams form at the bridge almost every day. An investigation into ways of improving traffic flow, initiated by Rijkswaterstaat, resulted in the proposal of several designs for a new bridge (next to the existing one). The Merwede bridge was the first project to use the Sustainability Check (figure 2). The analysis showed that what appeared to be a more expensive option for the bridge (with a long span) would ultimately be more cost-effective for Rijkswaterstaat. The low-cost bridge proposal (with a short span) was found to require extra dike construction

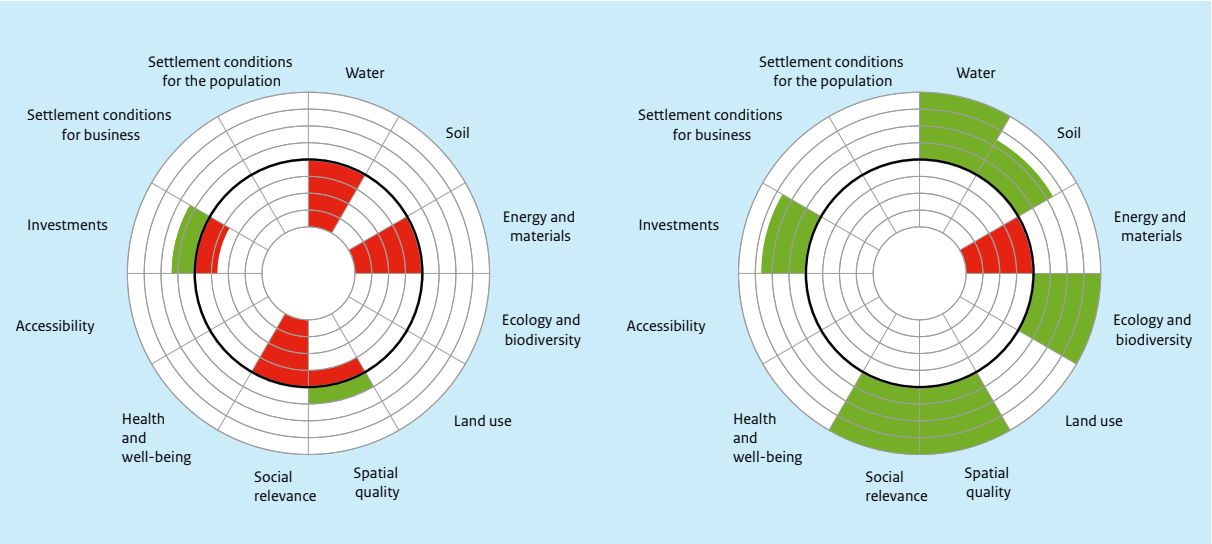

*Figure 2: Using the **Omgevingswijzer** for the Merwede bridge. The 'cheap' option to the left shows mostly negative effects, while the 'expensive' option to the right shows mostly positive ones.*

work and the creation of new buffer areas, which would result in a higher final cost. The business and community liaison officer for the A27 project from Houten to Hooipolder, says that the Sustainability Check was also very useful in the subsequent project phases, particularly when it came to "assessing new location-related issues" and in situations where consultation with the various parties in the area was possible from the start of the project. However it was in the design exploration (early) phase that the tool really added value by identifying realistic sustainability opportunities.
In hindsight, if the Sustainability Check had been used for the Merwede bridge at an earlier stage, it would probably have had an even greater effect on the different design proposals that were submitted for the new bridge.

A6 Almere

Part of the work required for the Schiphol - Amsterdam - Almere highway extension project involves modifications to the A6 between Almere Havendreef and Almere Buiten-Oost. The highway will be widened from 2 x 2 to 2 x 4 lanes and some sections will be brought down to ground level. Eventually the highway will cross the site that has been chosen for the 2022 Floriade exhibition. The Floriade is an international horticultural and gardening exhibition, which is held once every ten years. The Sustainability Check came into play during the contracting phase in preparation for the tender in 2015. The tool was used to take into account the sustainability effects of the Municipality of Almere's intention to make the Floriade 2022 site a permanent nature area. The project contract manager, explains. "The plan gave us the opportunity of realizing a number of sustainability ambitions. After using the Sustainability Check, we were able to work out and integrate a number of additional sustainability aspects in collaboration with the Municipality of Almere, the Province of Flevoland, Bouwend Nederland (the umbrella organization representing the Dutch construction industry) and other stakeholders. This resulted in a number of additions such as self-cleaning hard shoulders." The project contract manager sees a further advantage to using the Sustainability Check. "It creates greater awareness because it brings together different perspectives in a project. This is important, as projects are becoming more complex, partly because of the involvement of a growing number of parties."

Gerrit Krol bridge, Groningen

Rijkswaterstaat is collaborating with the Provinces of Friesland and Groningen on improvements to the Lemmer – Delfzijl waterway. One of the projects involves replacement of the Gerrit Krol bridges, consisting of a pontoon bridge for vehicles and two fixed bicycle bridges. Rijkswaterstaat took over management of the bridges from the Province of Groningen on 1 January 2014. The Province will be responsible for the implementation of this project on behalf of Rijkswaterstaat during the next few years.
In July 2013, Rijkswaterstaat invited the Provinces and Municipalities to participate in a session that focused on analyzing the project using the Sustainability Check. The objective was to bring more structure into the spatial planning study. The project business and community liaison officer explains. "The bridge is the biggest traffic bottleneck in the town of Groningen. Accessibility is therefore an important issue that requires appropriate

consideration when developing solutions. It will require administrative commitments as well, for example in the area of cost sharing."
The Sustainability Check took on the role of a communication instrument in this project. "It highlighted the different issues, making them easier to discuss. This increased our understanding of the project. It also meant that all the parties involved had access to the same information and knowledge when looking at the project. This may result in solutions that extend beyond the waterway itself and result in enhancements to the spatial quality of the area."

The application of the Sustainability Check assumes intrinsically that there is an ambition present in the project that goes beyond just meeting legal requirements. This requires that the project teams have an open mind for enlarging the scope – and therefore the politicians who commission the project – in order to prevent lock-in and to achieve an integrated approach. Important lessons are: start together at the core of a problem (scoping) and work together to find a sustainable solution. The Sustainability Check has been received remarkably well by practitioners as a useful addition in the planner's toolbox by addressing the requirements of early, integrated plan-making that strives to overcome lock-in situations. It is a good first step in making spatial initiatives more integrated, but definitely not the last step. This instrument seems especially useful in early plan stages of strategic exploration, to support collective design and choice, however, more detailed and specific instruments remain needed for detailed elaboration and assessment, especially in subsequent stages. Smart combinations of the instruments available for evaluation and assessment (such as the Sustainability Check, CBA, EIA, BREEAM etc.) should support the complete cycle of intelligence collection about the problem, collective design of multiple alternatives, choice for an alternative and careful implementation.

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For more information, visit
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