Only some dykes suitable for solar panels

If you cover dykes with solar panels, you don't have to use up valuable farmland for this purpose. But not all dykes are suitable, shows the TNO project 'Solar Panel Dykes', in which WUR was also involved.

In the project, four different setups for solar panels were investigated in actual practice, namely on dykes in Zeeland (Ritthem) and the Flevopolder (Zeewolde). In two setups, the solar panels were suspended above the ground. In the other two setups, the panels were on the dyke surface, which consisted either of grass or paving.
All setups performed satisfactorily in terms of energy generation. But the best setup for the dyke itself is one where panels are placed on a paved surface. That is because hammering in foundation piles can make the dyke less safe. Furthermore, when placed on top of grass, solar panels cause severe deterioration in the grass cover, which also adversely affects dyke safety.

'The turf under the panels suffered a lot of damage'

Sunlight

WUR grass expert Jan Rinze van der Schoot was involved in the study. 'It soon became clear with the dykes covered in grass that the turf under the panels suffered a lot of damage. Only 10 per cent of the sunlight reached the grass under the panels, which is much too dark for grass to grow.' Solar panels incorporated in the surface of a paved dyke seem the most promising option, but they too have issues. Van der Schoot: 'There were surveillance cameras in place during the project. We didn't see any vandalism, but security is obviously still a risk.' RK