

Session Biosphere: April 13th 09.00 hrs

1s5 Nature-based solutions for circular food systems under climate change

How transformative adaption is making its way in the Dutch water system

Van Eldik ZCS 1), Timmermans W 1) de Haas W 1)

1) Wageningen Environmental Research

Climate change is causing more extreme weather and so far commonly accepted reactive, and preventive adaption strategies seem no match to future predicaments. Therefore, a window opens for new transformative trains of thought. The transformative adaption approach adopts a fully long-term perspective of up to a hundred years. Functional use of land is based on the natural system by which natural resilience is strengthened. For example, rivers are given more space and the functional purpose of rural landscapes are rethought in conjunction with natural conditions. This does not only serve the natural environment, but also stimulates spatial planning to look for pairing opportunities, like promoting aquaculture in particularly wet environments or adjusting crop systems to increase drought resilience.

A true transformation is usually not clearly steered by any particular actor. There are often different people in different positions who 'sense' the challenge of change and work on it. The mobilisation of these change-makers is often a result of some substantive trigger. A good example is the NL2021 project, a long-term scenario for the Netherlands (Baptist et al., 2020), which is centred on the natural system and its capacity. To learn more about how presenting a thought provoking image of the future can instigate a possible transition, researchers from Wageningen Environmental Research are currently monitoring four regional project-driven alliances aimed to set transformative adaption in motion from the perspective of the Dutch water system.

So far six relevant areas of consideration have been identified: 1) drought as a game changer in the acknowledgement of climate change, 2) the 2120 scenario as an eye opener to a future vision, 3) a change of discourse in which the natural system is used as the starting point, 4) embracing integral paths towards sustainability, 4) timing and presentation, 5) small wins by local initiatives and 6) the recognition of natural systems as a self-contained actor. This year, the continuation of the research has been aimed to provide more insights on the process. Not only by consistently following the course of co-creation, but also by going deeper into the tensions that could come with governing towards transition.

Keywords: Transformative adaption, natural system thinking