

Session DD 5.3: Implementation and design

Chair	Prof.dr. Peter Verburg, Institute for Environmental Studies, the Netherlands
Keynote speaker	Prof. dr. Paul Opdam, Wageningen University, the Netherlands
Speakers	Oswald Lagendijk, Deltares, the Netherlands Prof. Jorg Sieweke, Virginia School of Architecture, USA Dr. Roland Goetgeluk, ABF Research, the Netherlands Jaap Flikweert, Royal Haskoning, United Kingdom Ben Schaap, Wageningen University and Researchcentre, the Netherlands Ann Karina Lassen, Delft University of Technology, the Netherlands
Rapporteur	Kaj van de Sandt, Climate changes Spatial Planning, the Netherlands

Landscapes can play an important role in adapting to climate change according to Paul Opdam. Landscapes link the social system with the physical system, therefore the link between sustainable land use and the physical landscape is evident. Landscape services are incentives for land owners to implement adaptation options. These services aim for instance at ecological networks, water retention and purifying water, pest and disease control and can improve the visual quality of the landscape. In cost benefit analyses (CBA) these measures have a high added value because they combine benefits. The problem is that the investments have to be done by another group than the group that benefits. This means that society needs to pay for this services. CBA show that landscape services are profitable. Examples of landscape services are the construction of landscape elements that increase the ecologic conductivity and recovering water retention in nature areas.

Ben Schaap showed us an example of landscape services in the Dutch meadows, in the Ronde Venen. He worked with stakeholders in a project to develop a green/blue network of landscape elements. The network improves connectivity for ecosystems and the robustness to inundations and pests. The Common Agriculture Policy (CAP) provides a framework for these services. Close cooperation of scientists, stakeholders and the local governments proved itself. According to Oswald Lagendijk this cooperation between participants is the key to adaptation. Research by design brings together participants (stakeholders, scientists and policy officers). They share their knowledge by visualisation techniques. And focus on the questions of adaptation in river basins comes down to: "WHAT-WHERE-HOW and How does it looks like?"

Climate robust building generates interesting concepts of houses. Houses built along the waterfront can move up and down with the water level; houses built on poles have flood robust first floors and can be protected by mini dikes. These concepts can create new residential environments. These concepts can also be used at beautiful locations near water. Building near water increases the value of property. According to Roland Goetgeluk this effect is often overrated. Calculations show that the added value of houses is between 2 – 5 per cent in stead of 20 percent often proclaimed. He also warns that demand can not be stimulated by supply. Economic prospects of new houses are driven by demographic changes and job opportunities. "it's all about the economics".

England has flood events every six years. As a result of climate change the chance of a flood event increases by 4 times. The risks are reduced by land use planning and by flood defense structures. DEFRA develops shoreline development plans. The Wash is an area in the east of England. The shore development plan should protect the ecological system from habitat loss and protect the high productive farmland. The salt marsh protects the farmland as a buffer. Compensation will be paid if farmland is lost.