

Governance Challenges to Climate Adaptation

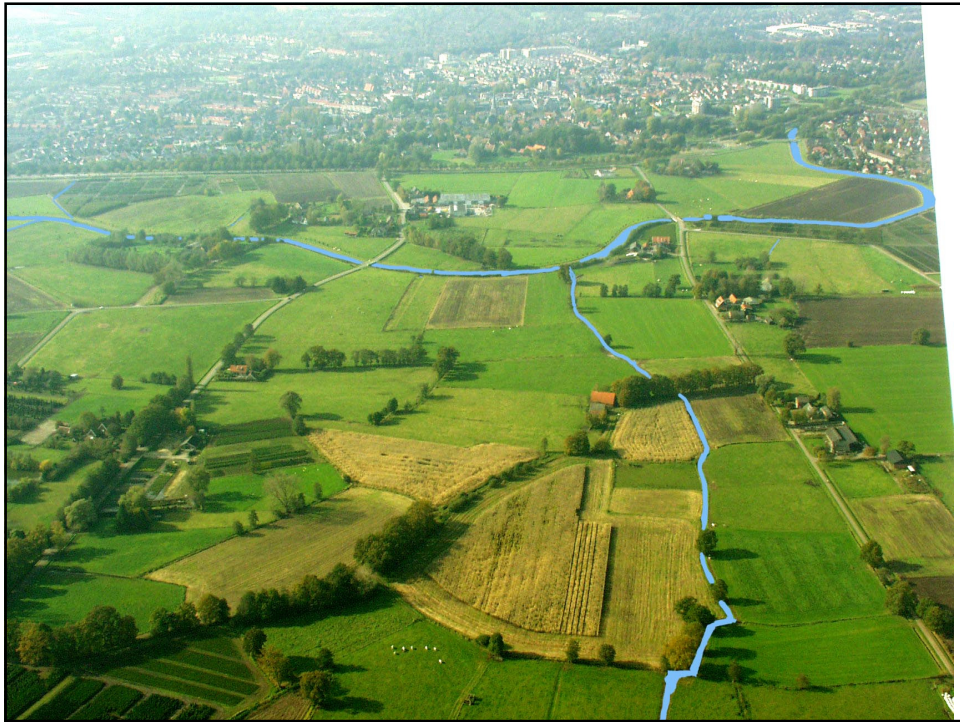
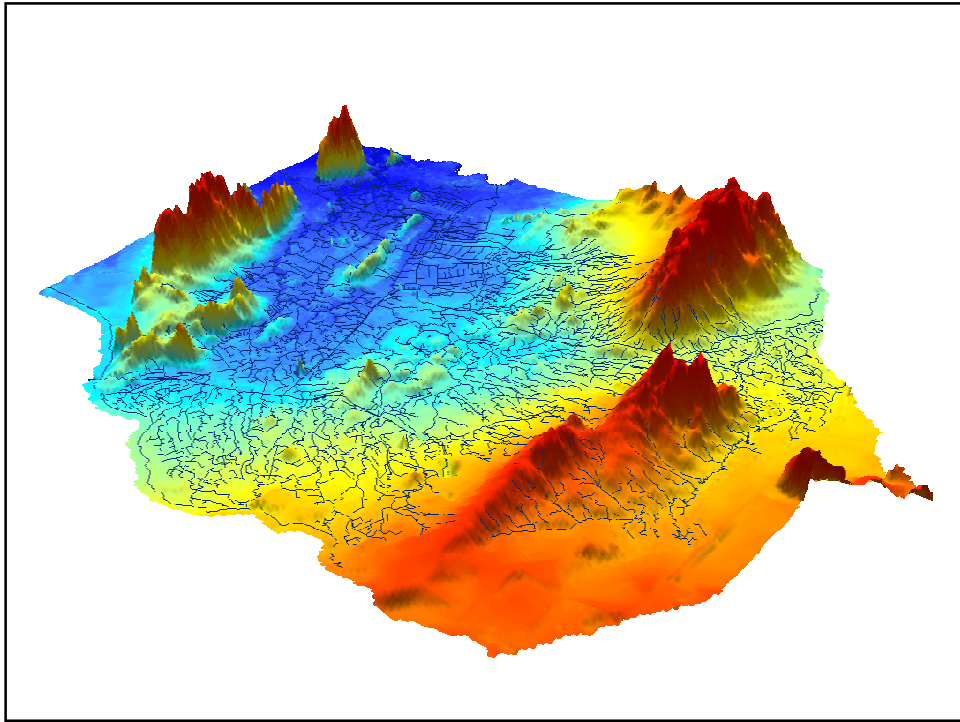
The Perspective of a Regional Water Authority in the Netherlands

Prof. dr. Stefan Kuks
Regional Water Authority Regge and Dinkel
University of Twente



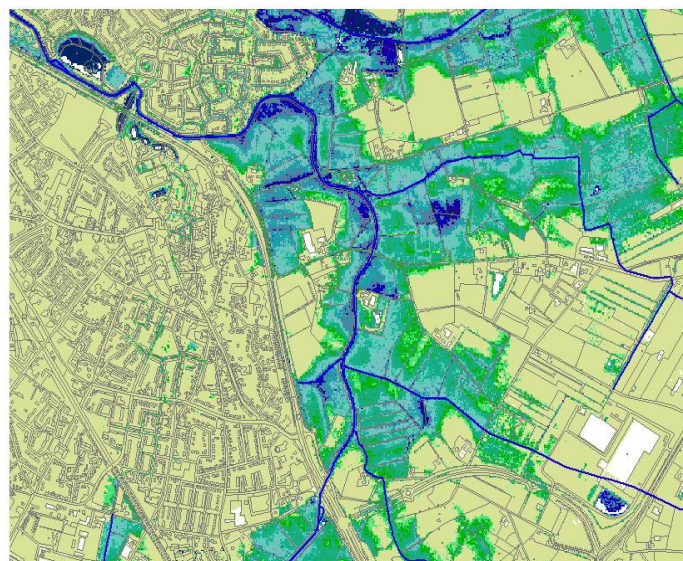
Almelo, 1946







Hoogtekaart

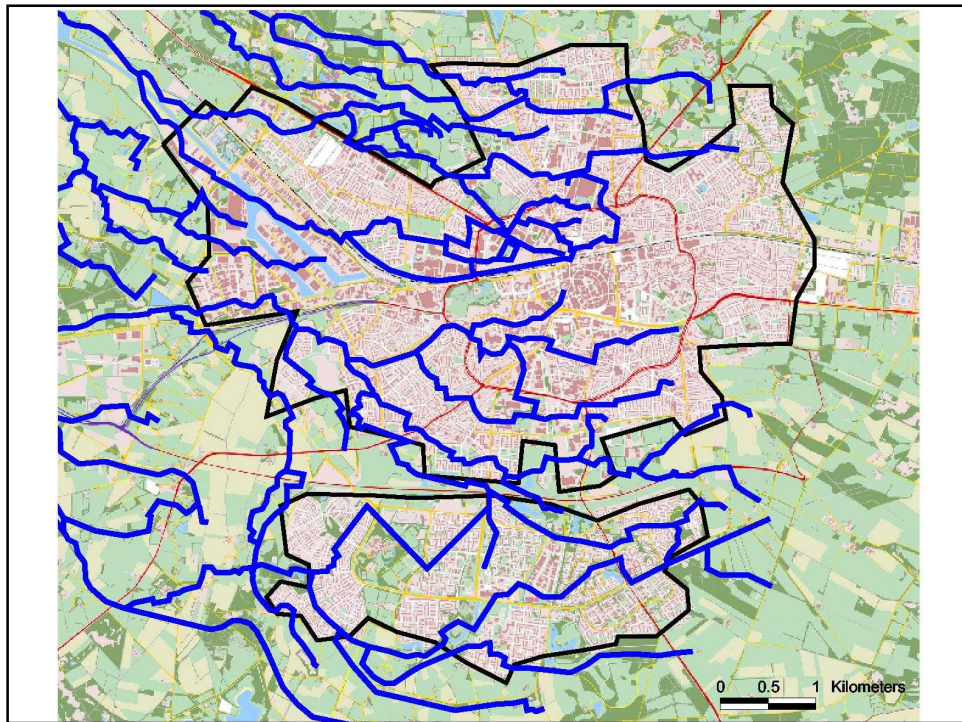


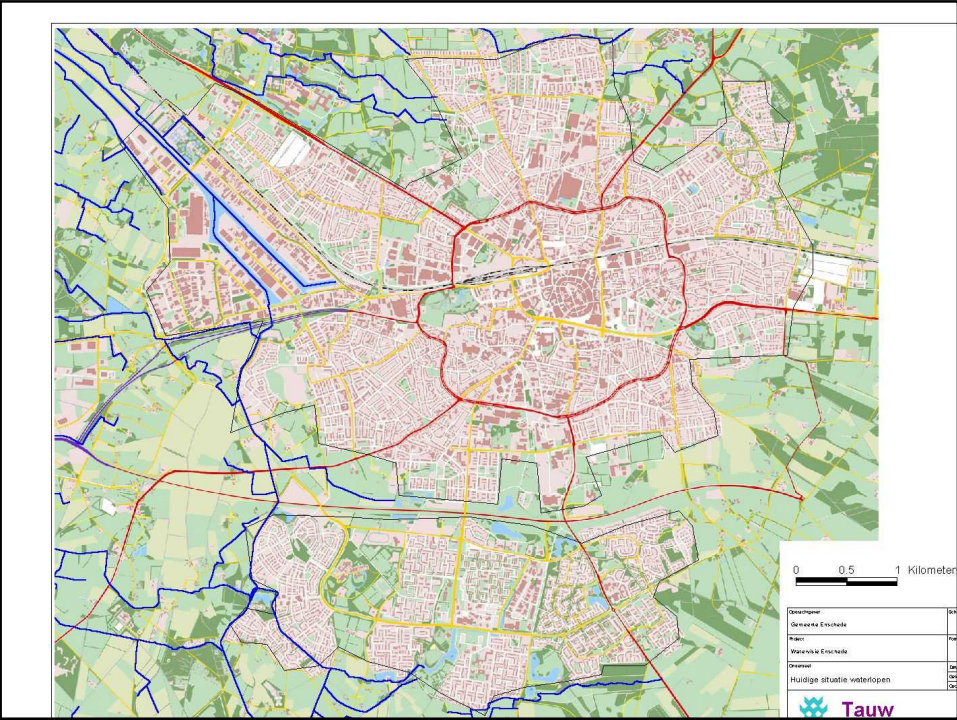
Hoogte in cm+NAP

< 1300
1300 - 1310
1310 - 1320
1320 - 1330
1330 - 1340
1340 - 1350
1350 - 1360
1360 - 1370
1370 - 1380
1380 - 1390
1390 - 1400
> 1400

Waterlopen









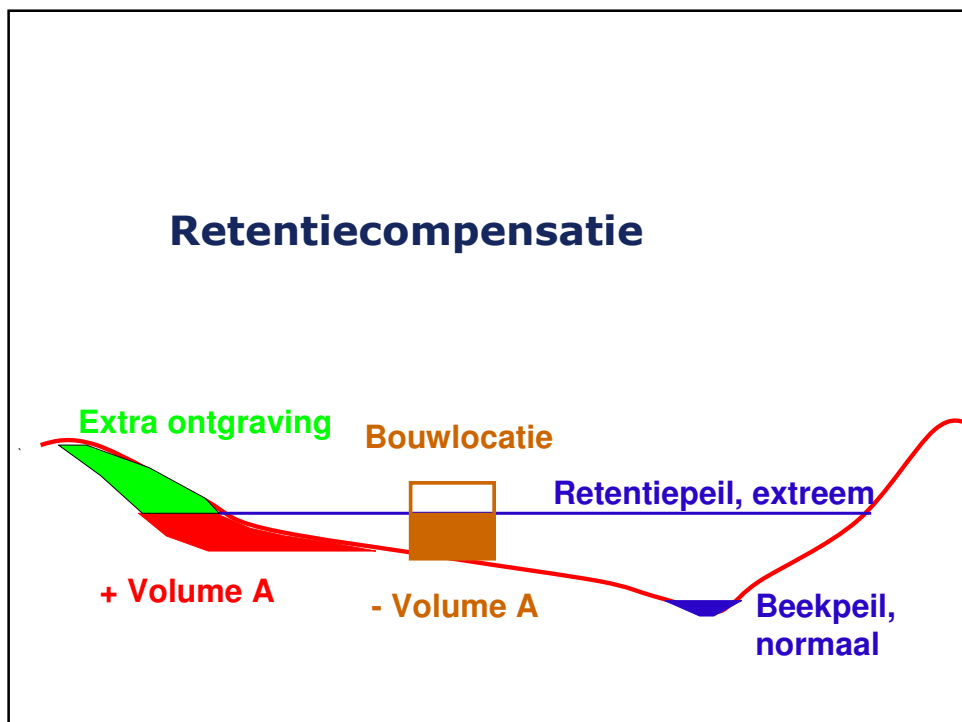
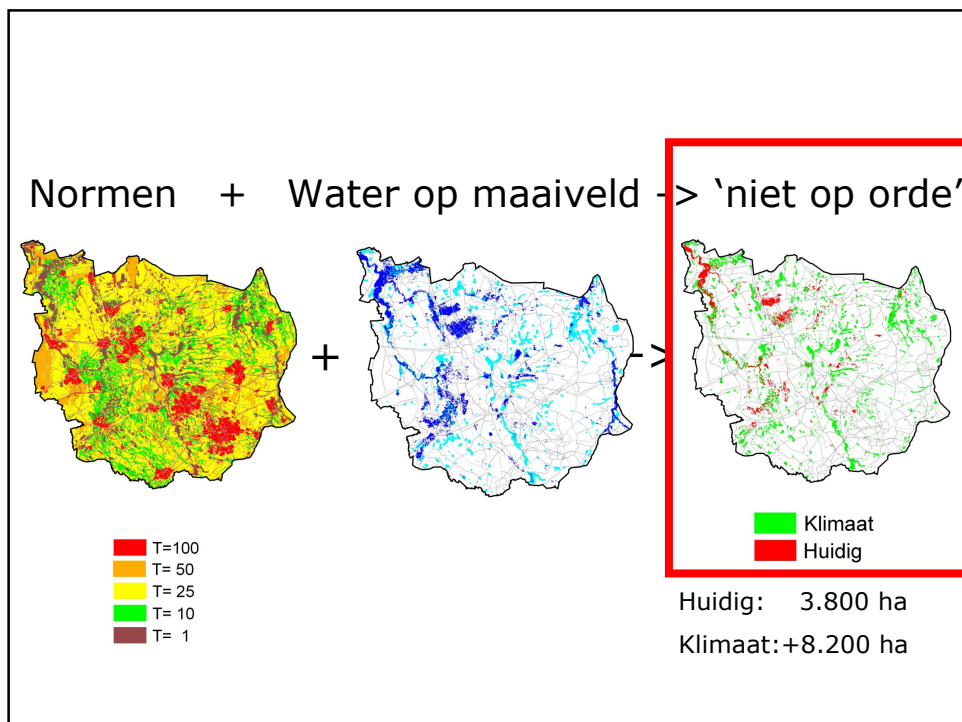
How do we adapt to climate change in Twente?

1. **Adaptation to high water: we have to create room for 12.000 ha of water retention by 2050**
2. Adaptation to rainfall peaks in urban areas: we want to disconnect rainwater from the sewer and create open space for water in urban areas
3. Adaptation to shortage of water: we want to retain more fresh water (raising groundwater levels by undeeptening watercourses)
4. Improving risk awareness among citizens: we have to communicate that we are living and balancing with water; we have to explain the limits to public responsibility; we need to get citizens involved

Reaction to the report by the Deltacommission in a regional newspaper in Twente

4 september 2008







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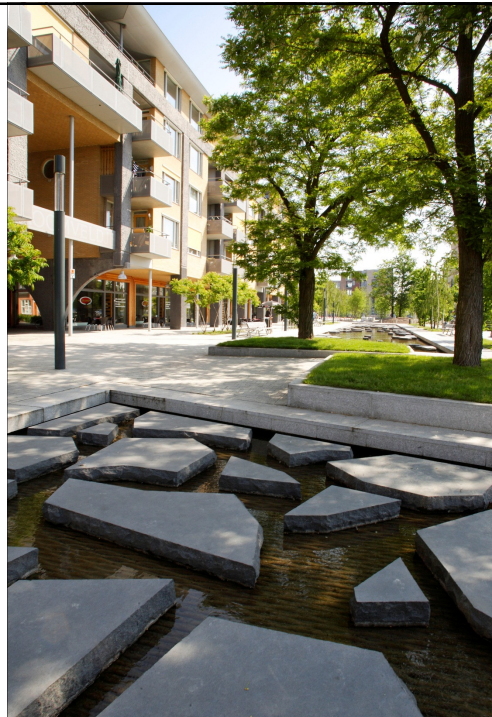
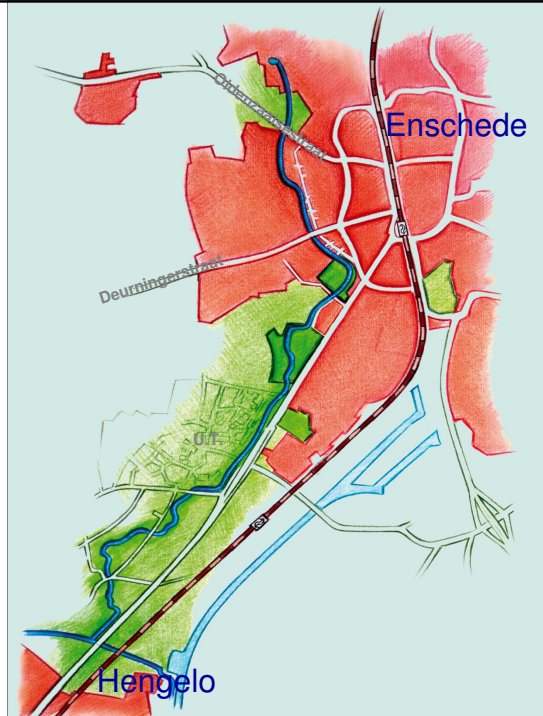
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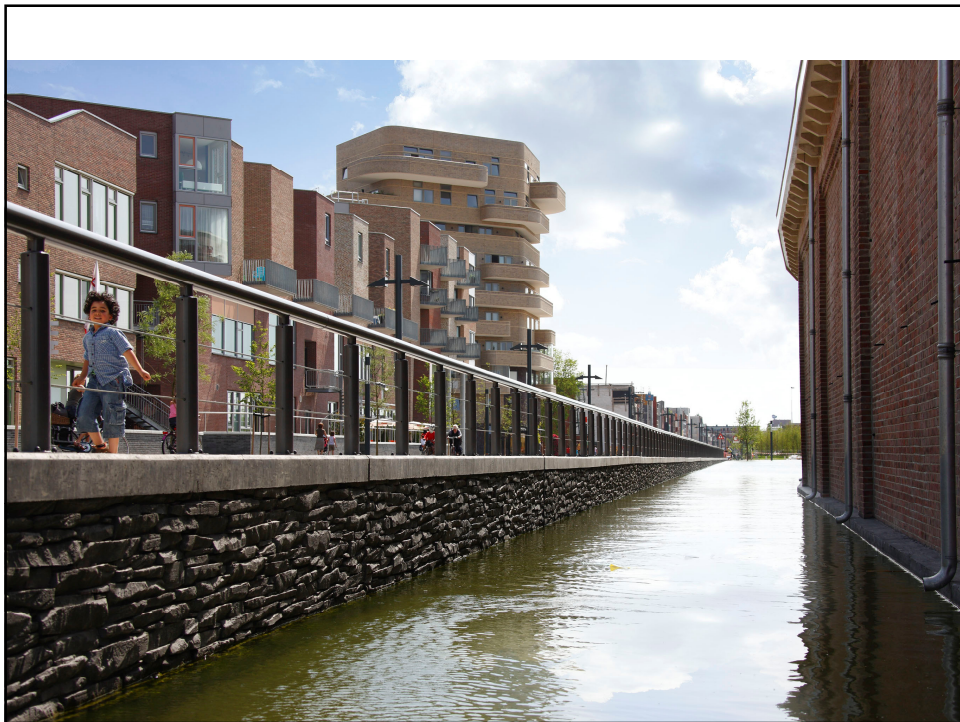


Storage of rainwater in
the blue vessels of the city

Postdammerplatz Berlin

herstel
van de
Roombeek





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**Even the
last drop
is used ...**

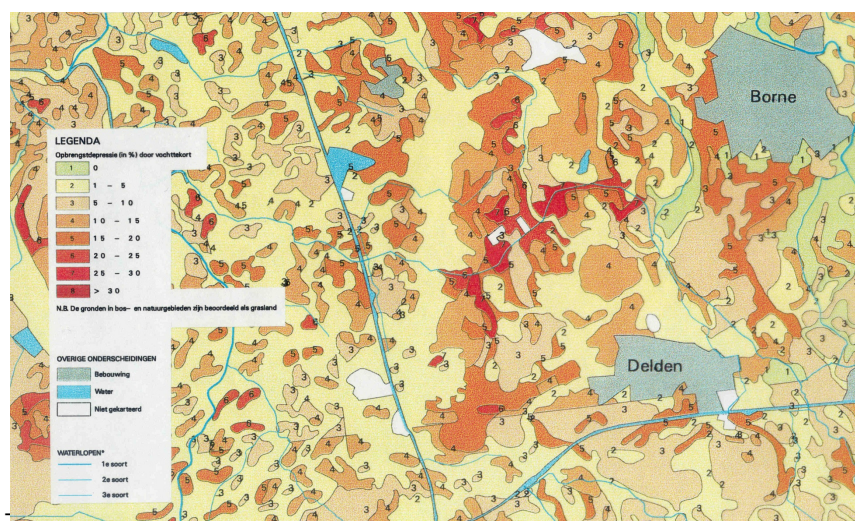




Nature confronted with water shortage !



Agriculture confronted with water shortage ?



‘Farming with water’

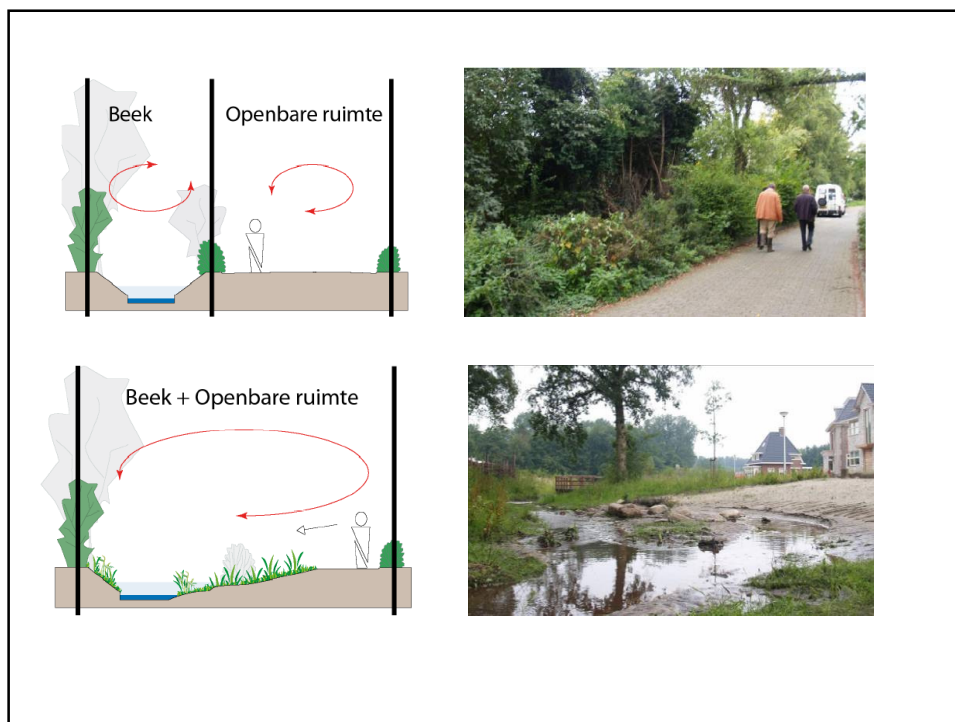
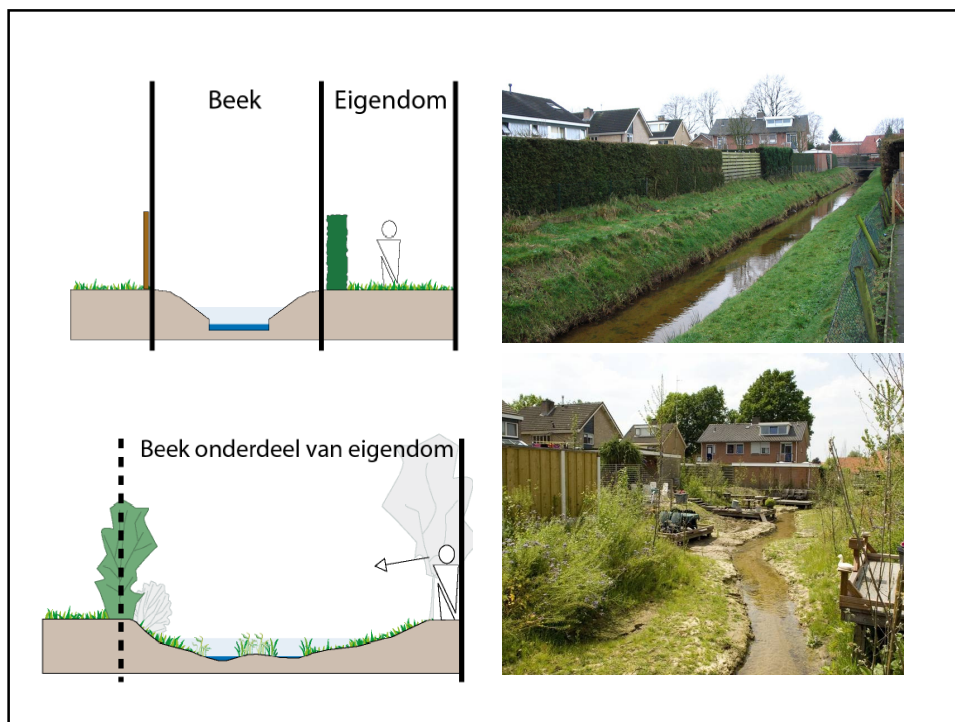




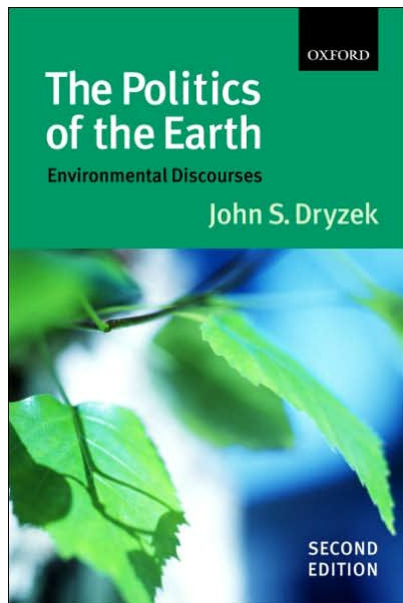


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- Leave it to the **experts**
- Leave it to the **people**
- Leave it to the **market**

Discourse 1 - “Leave it to the experts” Water management as technical engineering

- Water management in the hands of expert communities
- Authority in the hands of professionals
- Water as a guiding principle in land use planning
- Water policy as a countervailing power for other policy sectors affecting land use

Discourse 2 - “Leave it to the people”

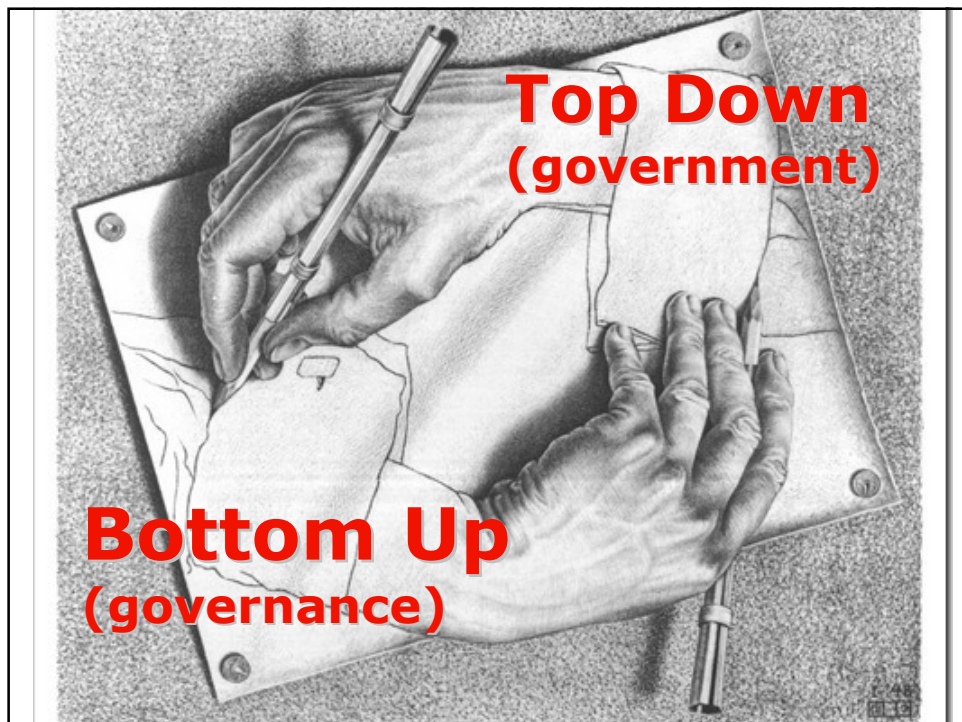
Water management as social engineering

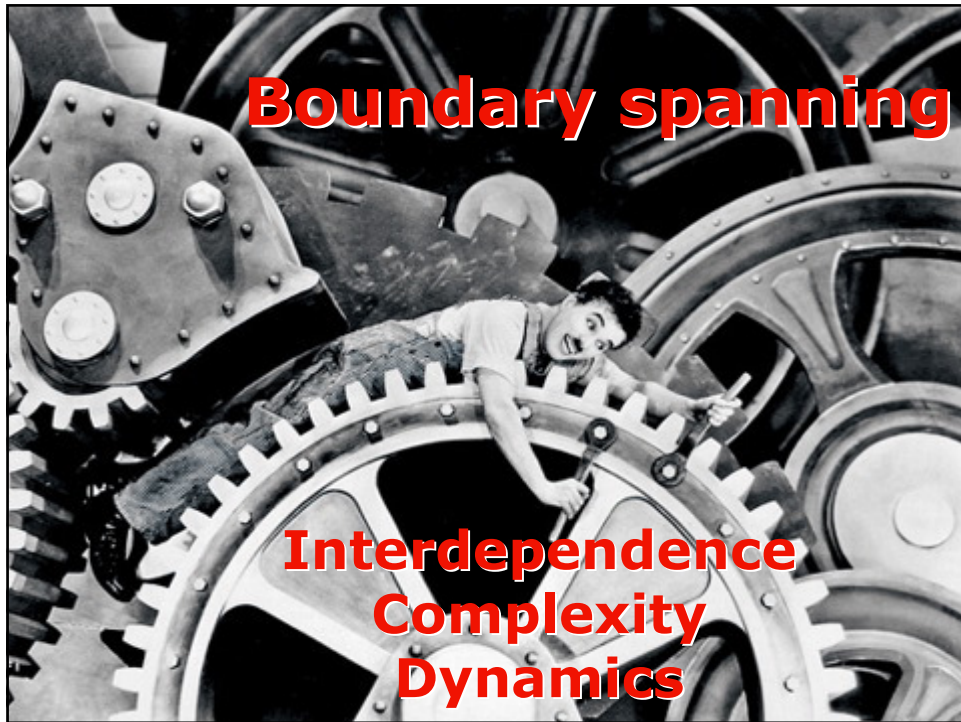
- Creating support for water management: “getting all users involved”
 - *Decentral legitimation necessary for the effective implementation of central (national) policies*
 - *Participation and representation of users*
- Working in coalitions with other stakeholders involved in land use planning and decision making
 - *Interpolicy cooperation, interactive policy making*
 - *Expanding the scope: taking into account all values of water*
 - *Dealing with complexity*

Discourse 3 - “Leave it to the market”

Water management as business

- Delivering water services (drinking water and sanitation)
- Financing water management: “getting the prices right”
 - *Pricing water services on basis of (full) cost recovery*
 - *Profit principle, Polluter pays principle*
- Market forces and competition
 - *Cost reduction and efficiency improvement*
- Benchmarking
 - *Incentives by semi-market competition in the public sector*

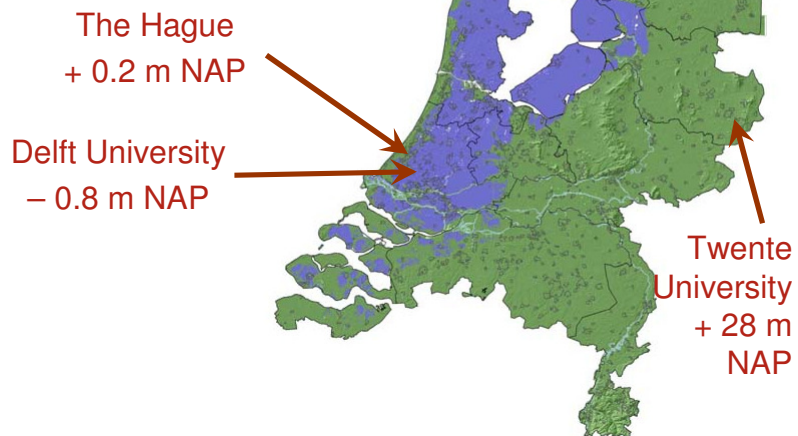




What has been important for the evolution of regional water authorities in the Netherlands?

1. The tradition of having a Common Pool Resource (CPR) institution for bottom up water management (already for 800 years), at short distance to those who have an interest in resource management
2. Constant problem urgency: the central government increasingly succeeded to set the policy agenda of the decentral water authorities and is using them (top down) for adaptation to new perspectives
3. An upcoming people discourse from the 1960s on resulted into the inclusion of new water values and users, which increasingly restricted the property rights of water users and land owners

**Twente Water Centre:
knowledge high and dry**



twentewatercentre

Thank you for your attention!

Stefan Kuks, 30 September 2010