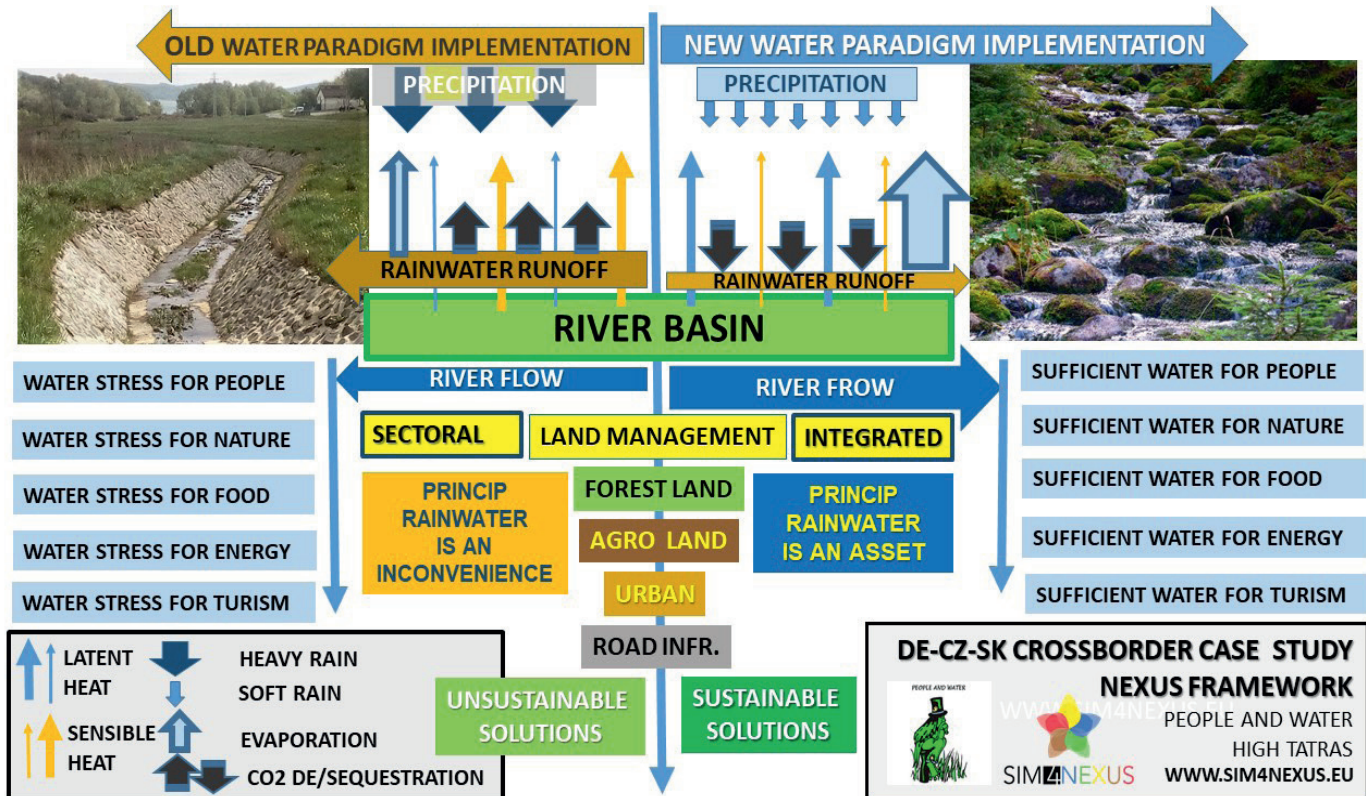


Climate-resilient landscapes in Eastern Europe (Germany, Czech Republic, Slovakia)



Rainwater retention is a driving force of climate-resilient landscapes

Key achievements

- Landscape restoration programme for Eastern Slovakia
- Regular communication with the Ministry of Environment (CZ)
- Regular communication with the Commission “Drought – SUCHO” (CZ)
- Awareness for the electrical load balancing problem under increasing shares of volatile renewable sources; communications with the environmental department of Vattenfall (DE)

Key products

[Policy brief – landscape restoration](#)

Findings

Landscape restoration based on retention of water through the involvement of new forests, seepage grass strips, wetlands and ponds are recommended, accompanied by improving soil quality. By retaining rainwater in damaged ecosystems, the renewal of vegetation begins, carbon sequestration, soil and groundwater reserves improve, springs are renewed, water vapour is increased and solar energy is transformed into latent heat that is transferred to higher, cooler layers of the atmosphere. There, at the dew point, this latent energy is transformed into sensible heat. The generated rainfall returns to the ground and feeds the ecosystems, stimulates vegetation growth, carbon sequestration and thermoregulation in the landscape. Clouds reduce the entry of solar radiation. This functional model can be quantified and implemented at the individual, local, regional and global levels.



An example of the landscape restoration of damaged agricultural land by the retention of rainwater on slopes by contoured bell by the unemployed in 2004 in Eastern Slovakia village Torysa

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