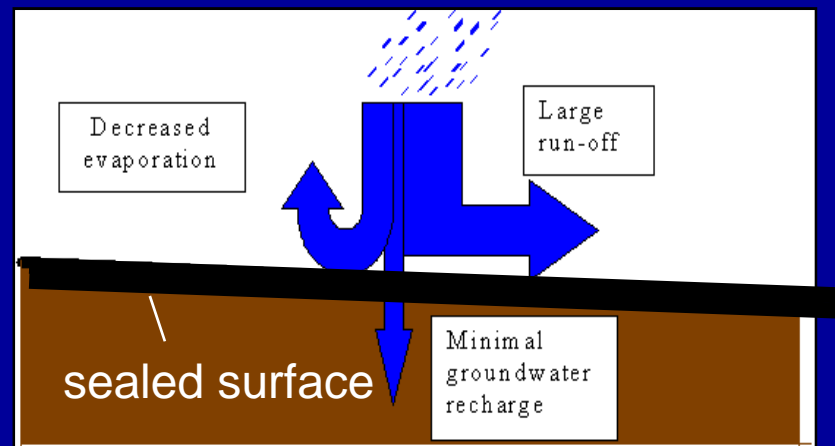
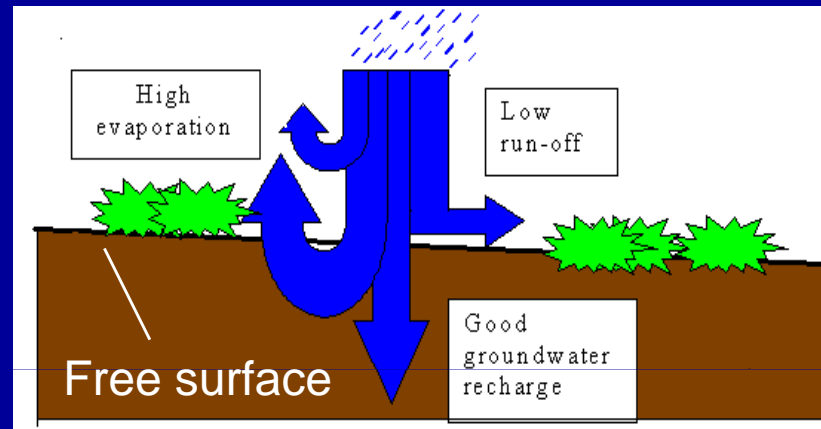


Options for recovering the damage to the country in the Ondavka basin

Brestov, 16. May 2013



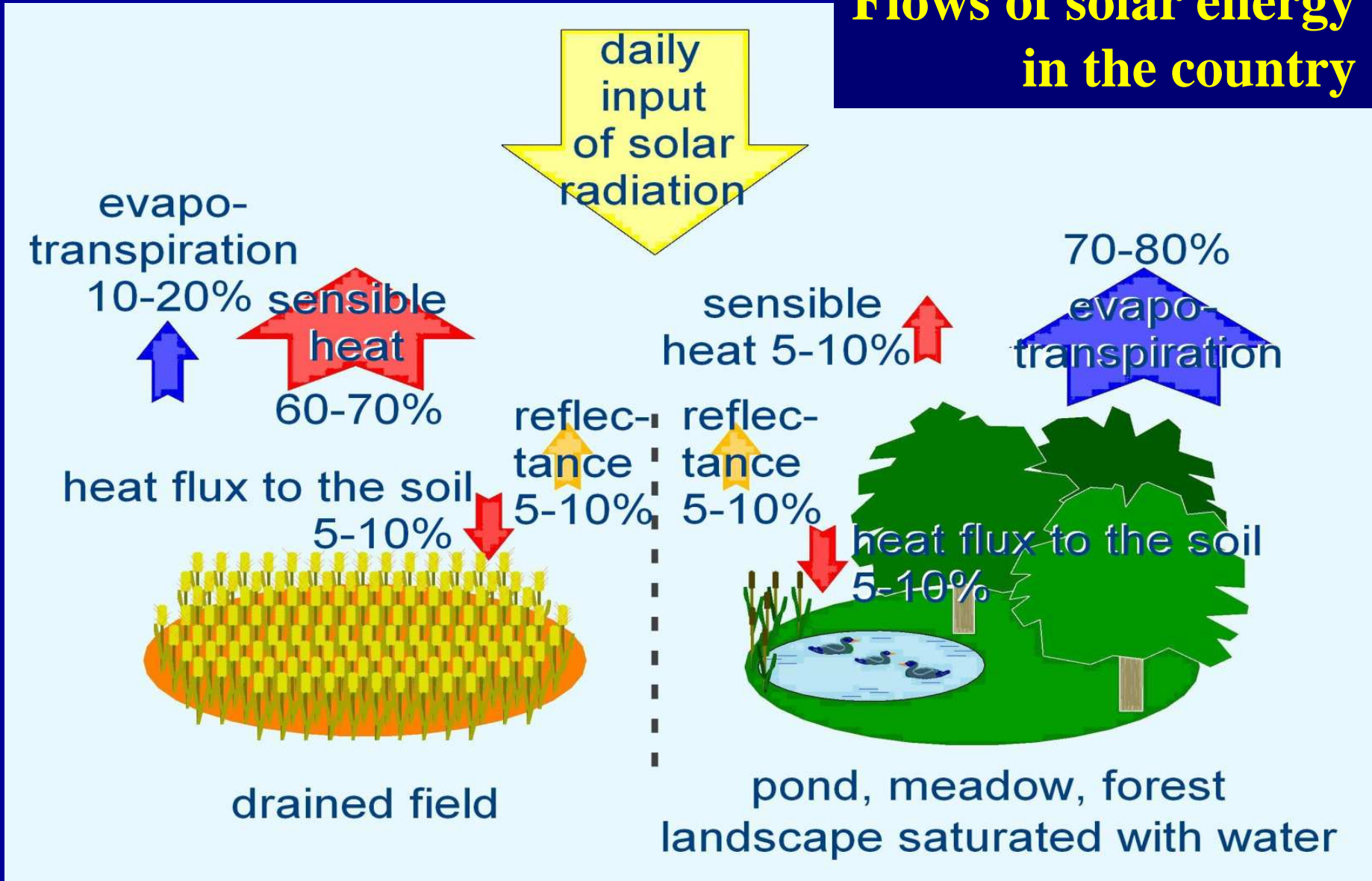
The impact of deforestation, agriculture and urbanization to the country:



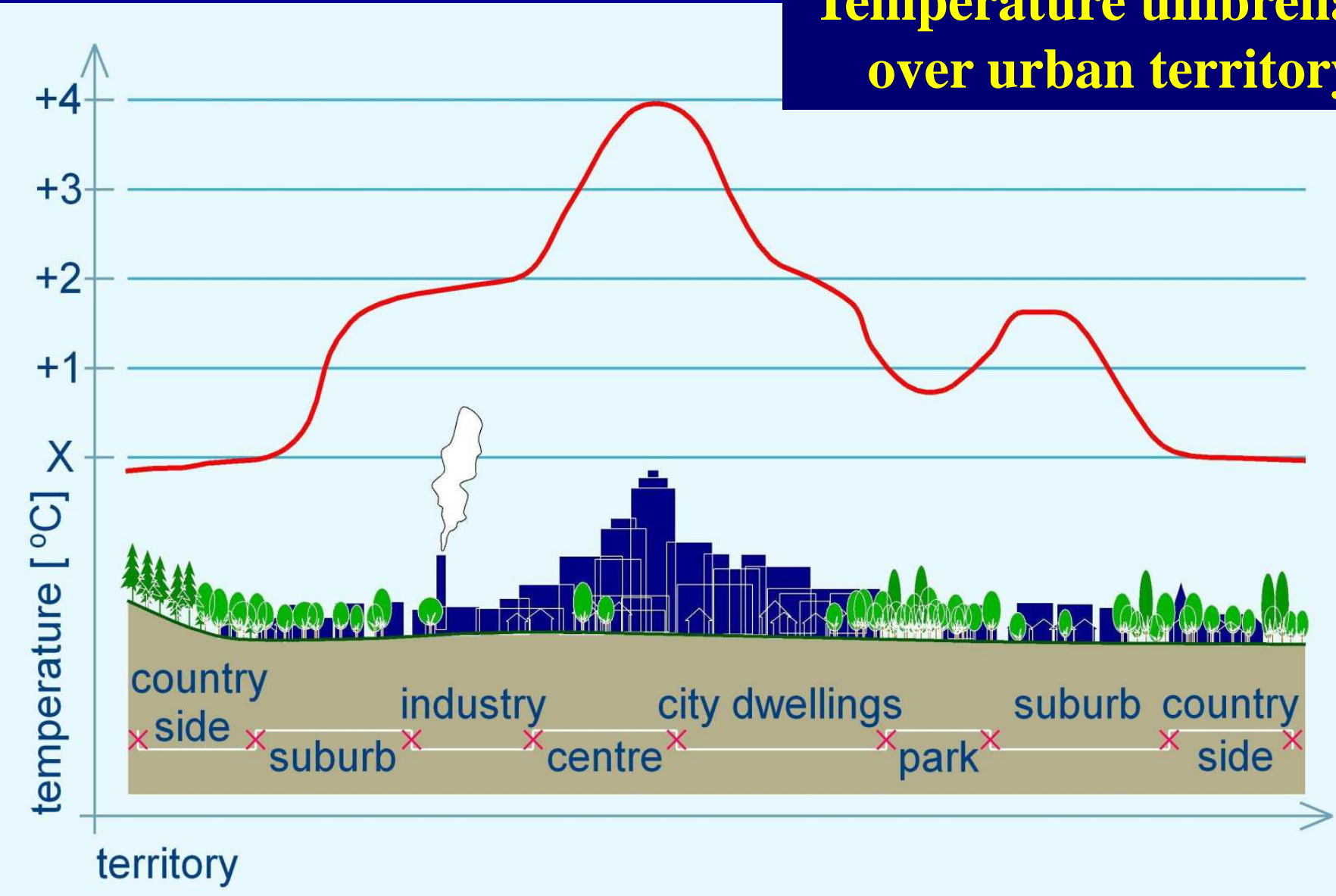
- infiltration and evaporation reduced, runoff increased
- Around 250 million m³ of rainwater are drained from damaged forested landscape and intra-urban areas of Slovakia

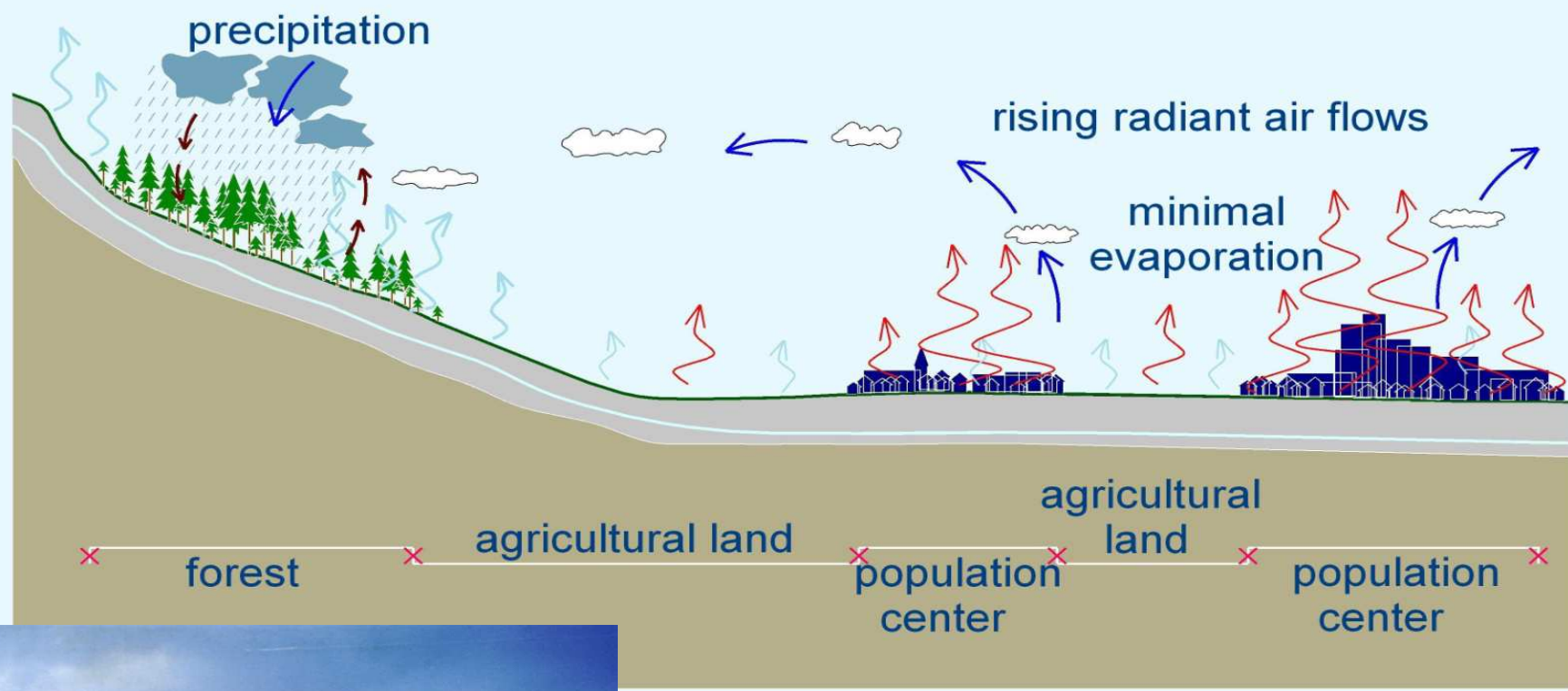


Flows of solar energy in the country



Temperature umbrella over urban territory





Extrusion of clouds in the mountains

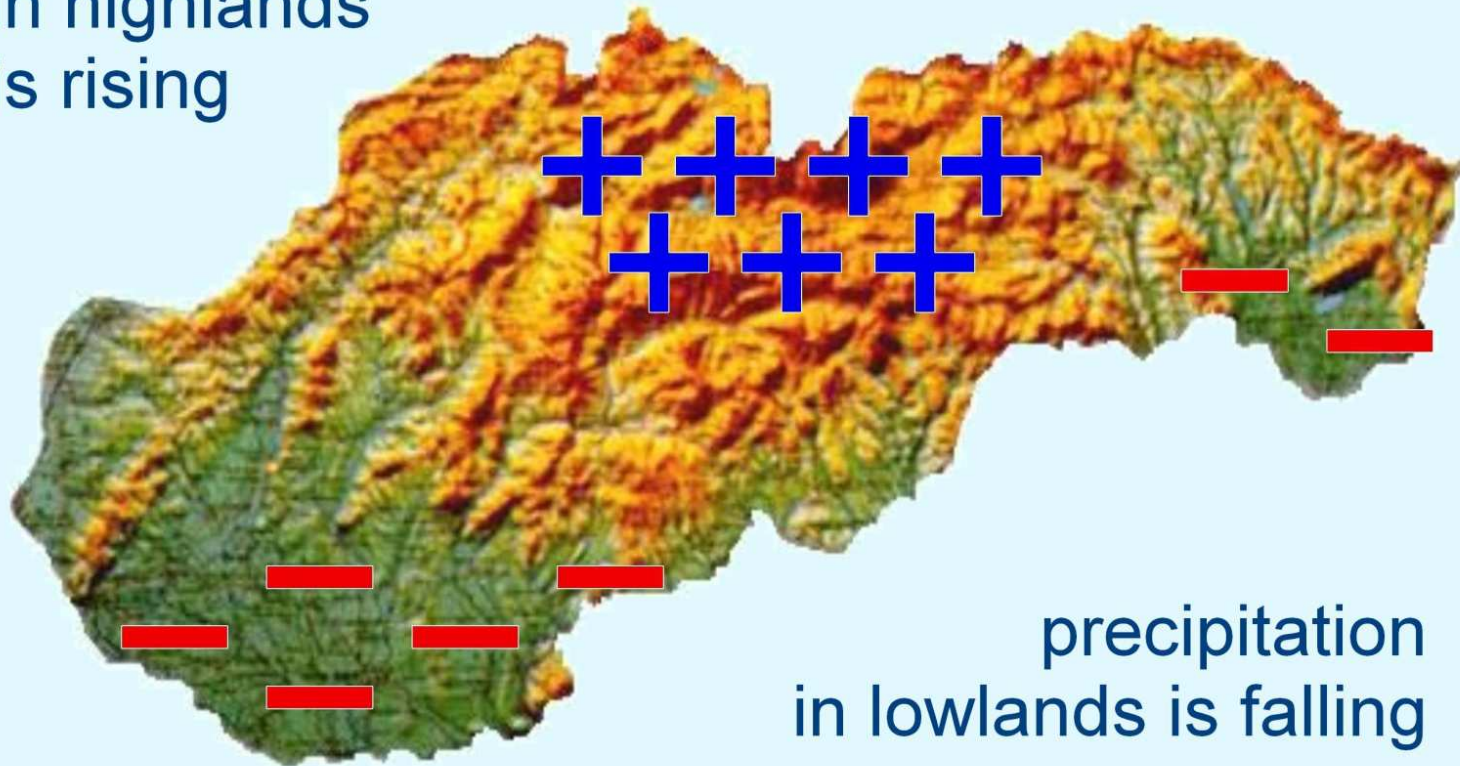


Hanging cloud above Bachurňa 28.7 2003

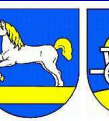
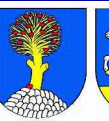


Slovakia in the 20th century

precipitation
in highlands
is rising

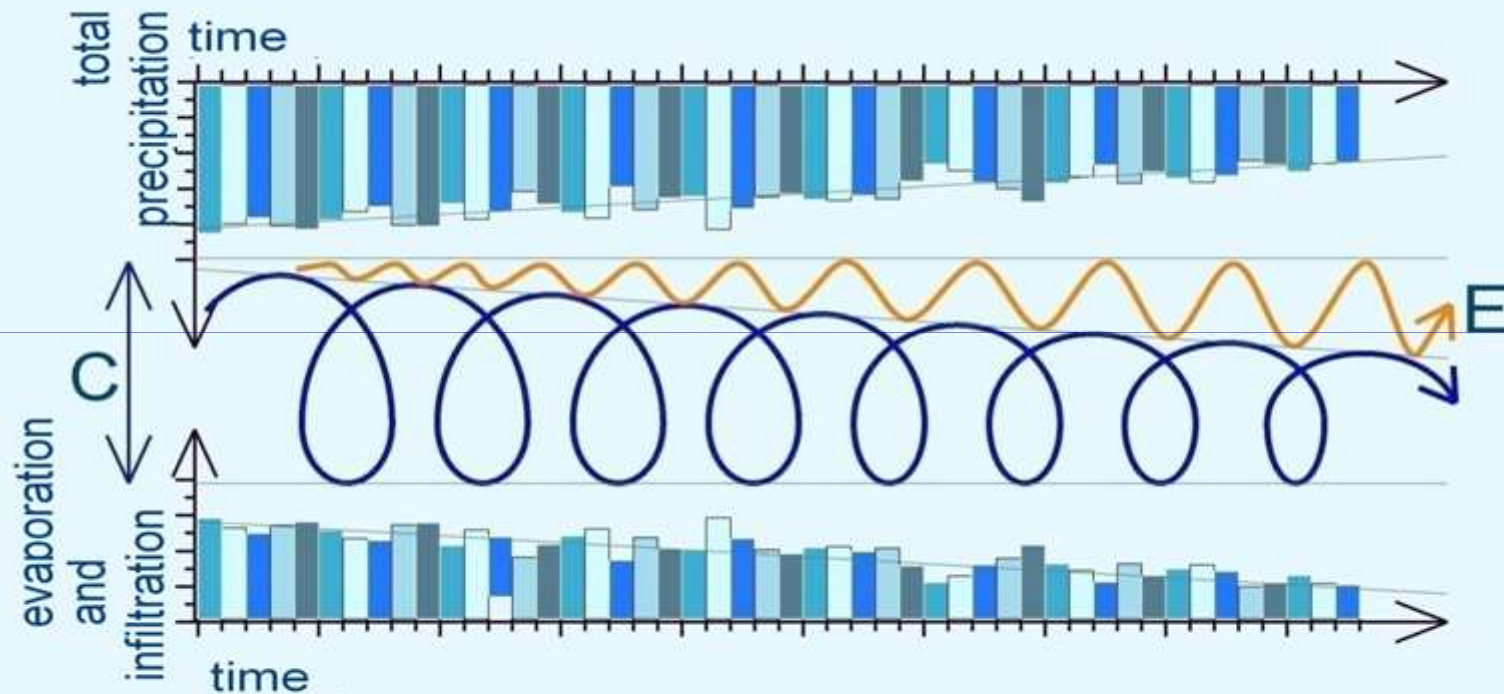


precipitation
in lowlands is falling



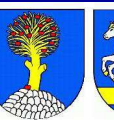
Weather extremes when water loss

Small water cycle

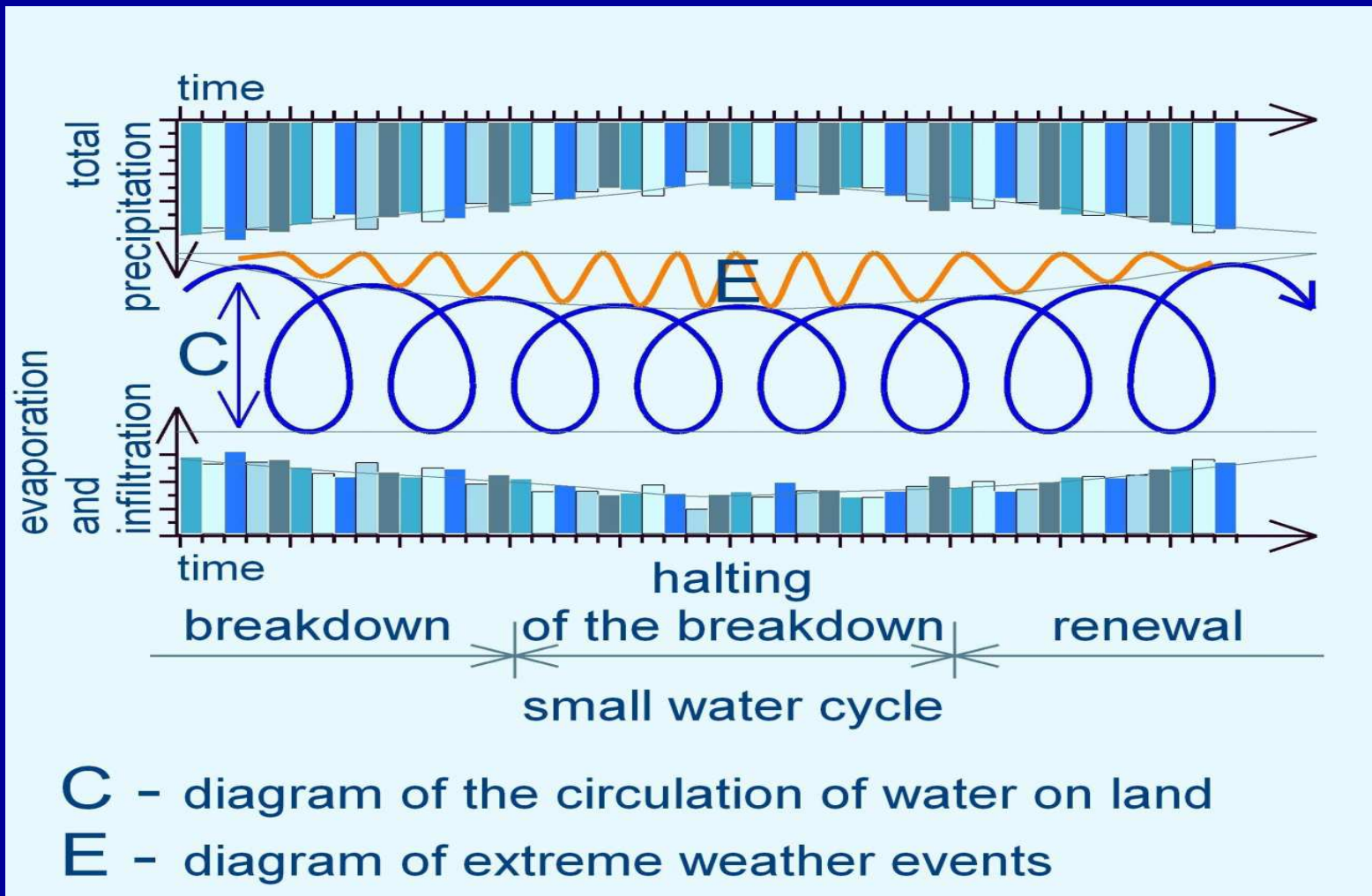


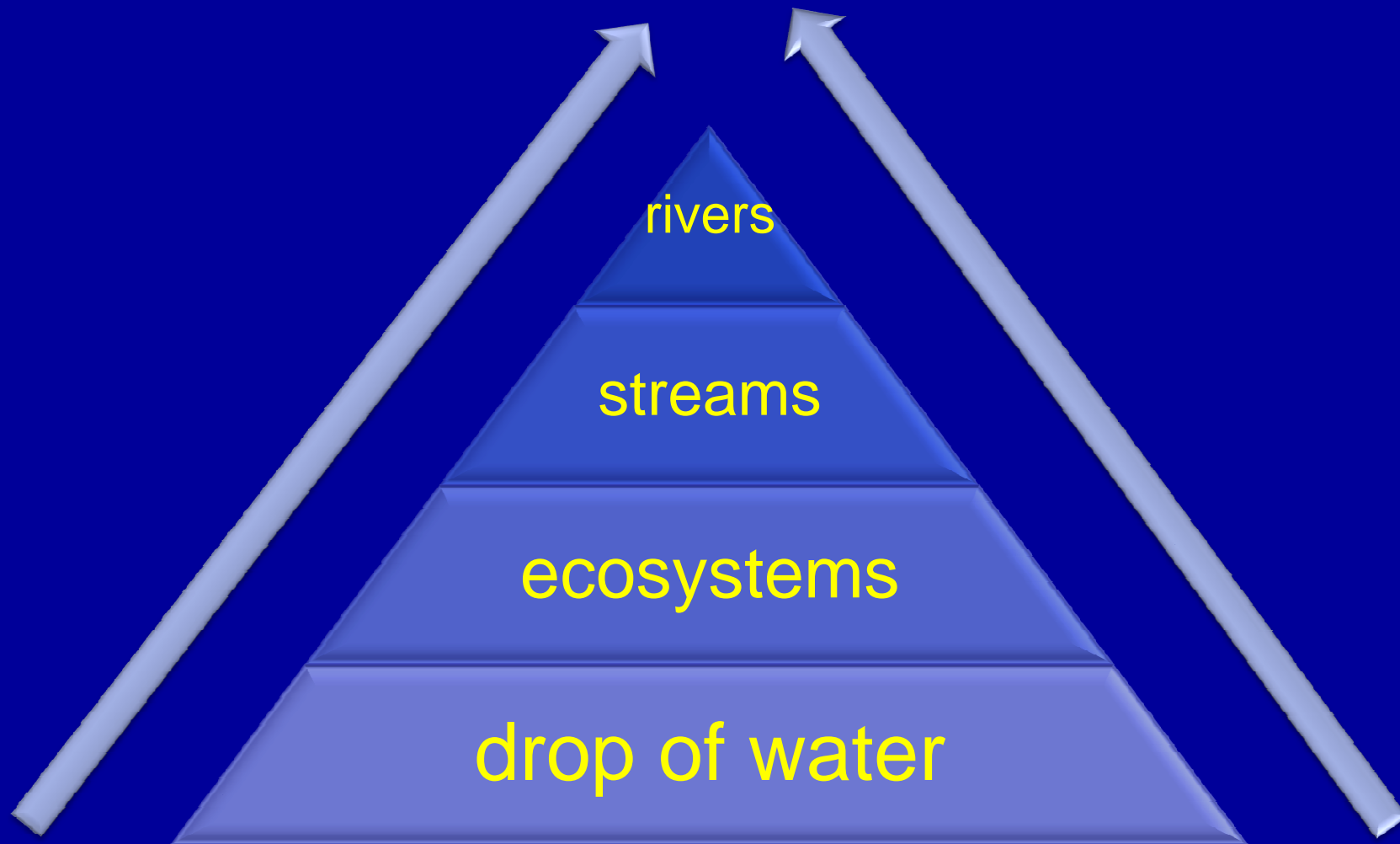
C - diagram of the circulation of water on land

E - diagram of extreme weather events



Destruction and restoration of small water cycles





Let's start with a drop of water!



Microstructures for the rainwater harvesting on land

Contoured barrages



Terraces



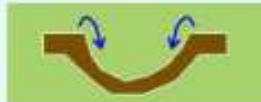
Eyebrow terraces



Pits



Vallerani-type microcatchments



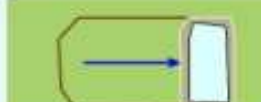
Semicircular bunds



Triangular bunds



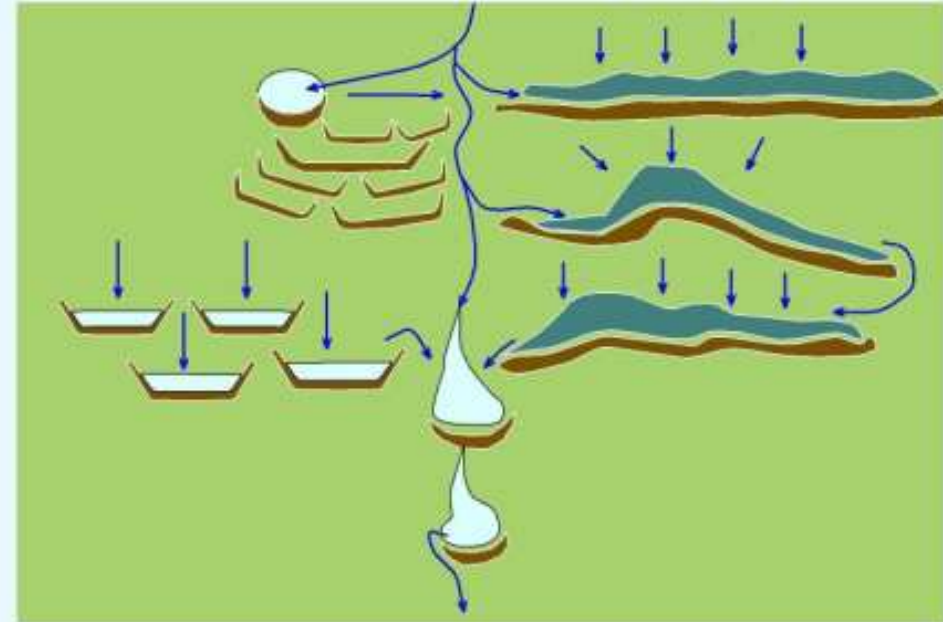
Meskat



Negarim

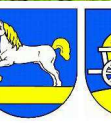
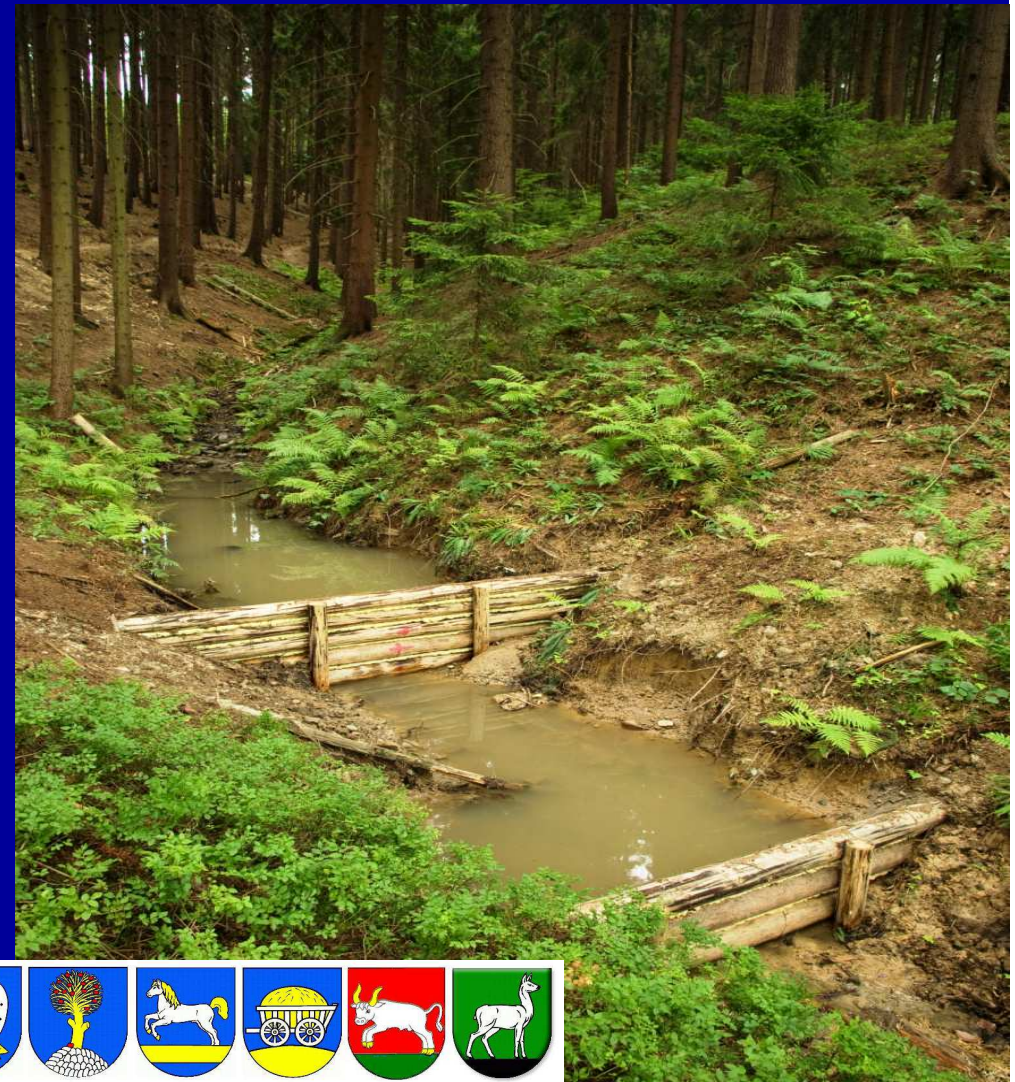


Combination of different rainwater harvesting technologies

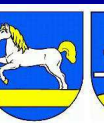


Benefits of harvesting rainwater in the country

- water resources
- flood prevention
- erosion protection
- stabilization of climate
- biodiversity
- cheap and effective
- and for the people ...



Analysis of damage to the country



Analysis of damage to the country

- Forest land: 3537,5 ha

-forest roads cca. 70 km
-some in poor condition
ravines and potholes
watercourses

-Agricultural land: 3122,2 ha

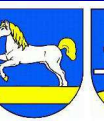
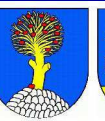


Analysis of damage to the country

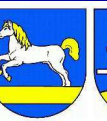
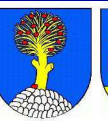


Erosion on roads

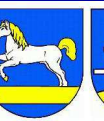
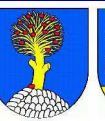
Erosion furrows in the country



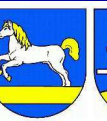
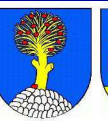
Analysis of damage to the country



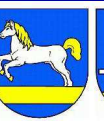
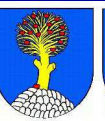
Analysis of damage to the country



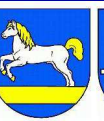
Analysis of damage to the country



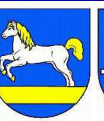
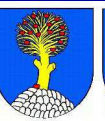
Analysis of damage to the country



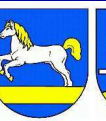
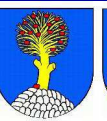
Analysis of damage to the country



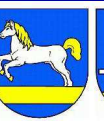
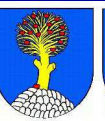
Analysis of damage to the country



Analysis of damage to the country

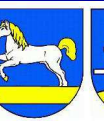


Analysis of damage to the country



Analysis of damage to the country

"Damage" of the urban landscape



Analysis of damage to the country

