Landscape restoration program and integrated river basin management in Slovakrepublic

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The 1st Danube Region Workshop
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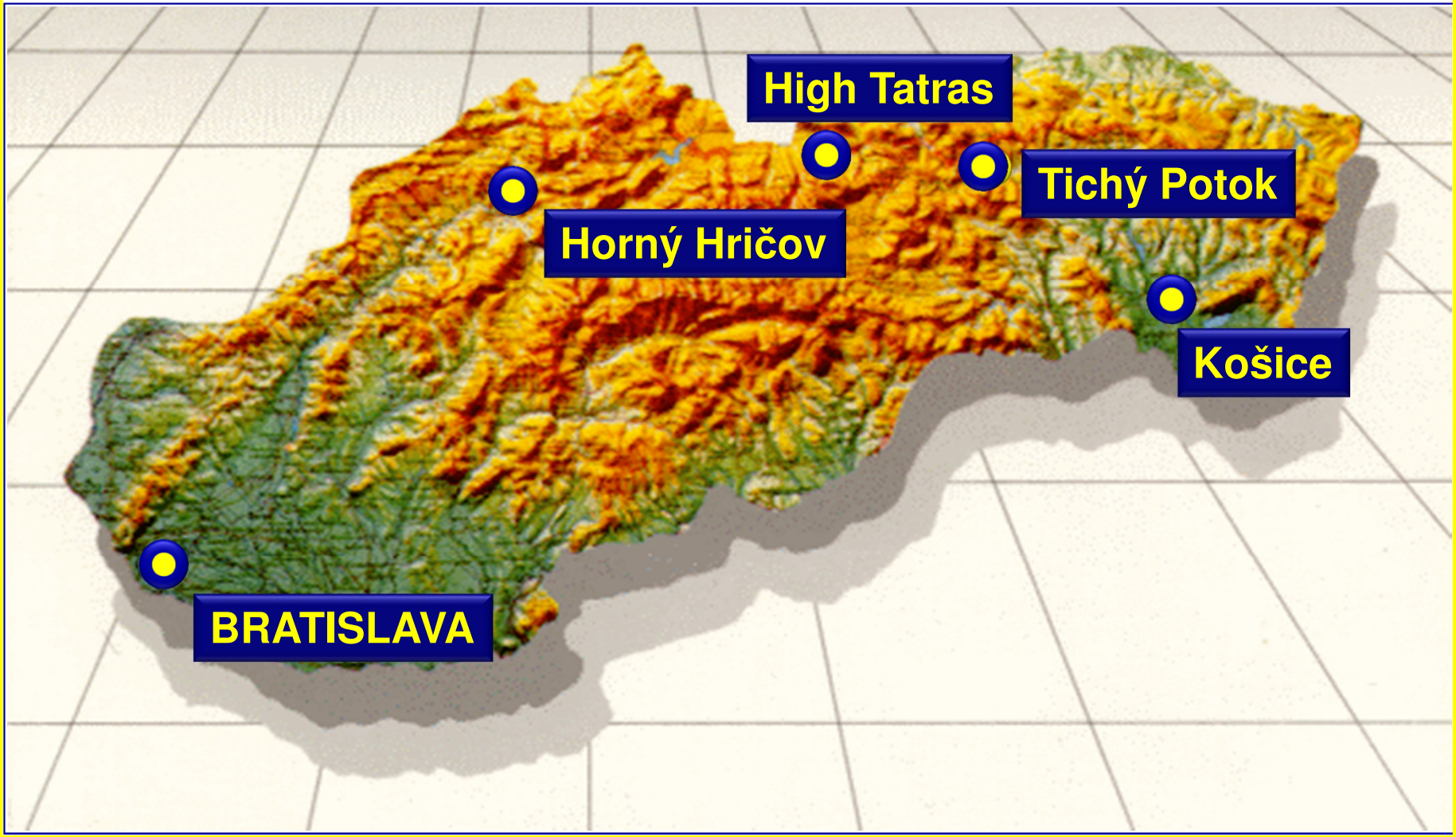
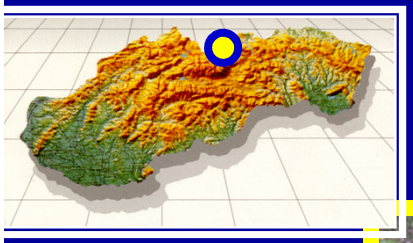
28-29 January 2014

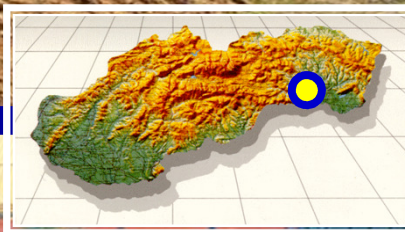
The cases for regeneration of demeged landscape by People and Water



Blue Alternative (People and Water, 1995)

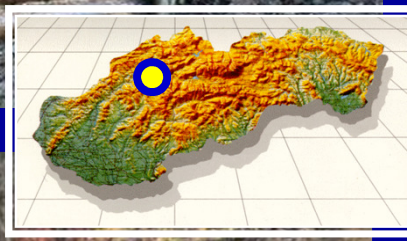
WATER FOREST, High Tatras, (People and Water, 2005)





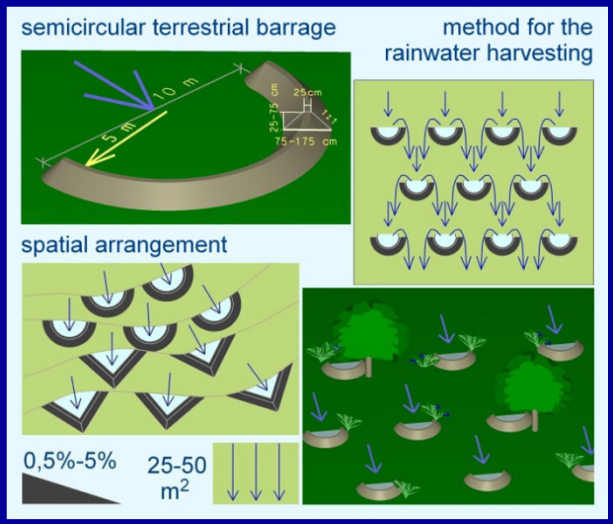
Restoration of water sources in urban zone Košice

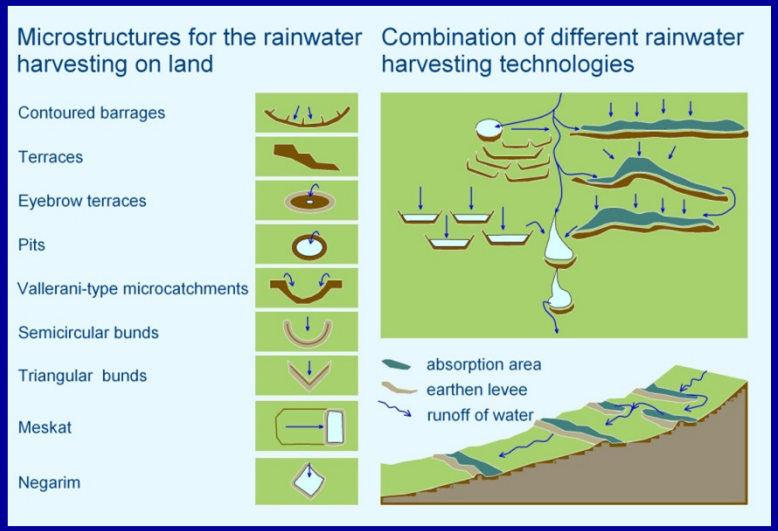
People and Water, 2005



Hričov Water Ways, (People and Water, 2008)

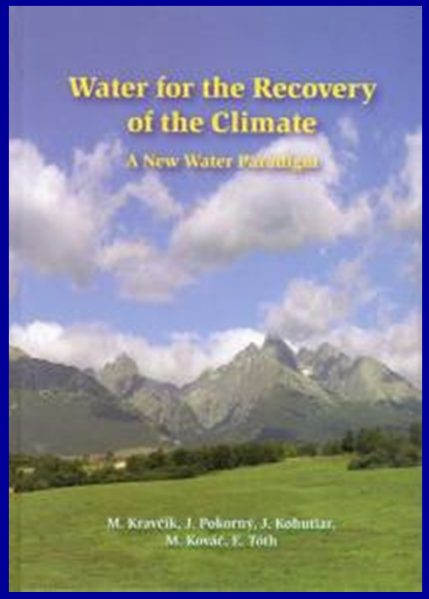
Rainwater harvesting principles





Water for the Recovery of the Climate

A New Water Paradigm

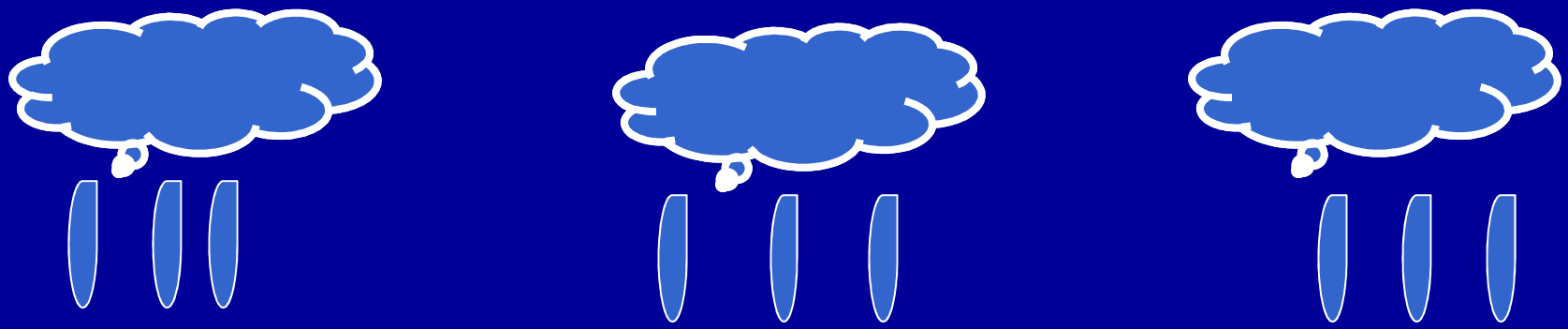


Scientific publishing

- A substantial role of water in the climate system of the earth (to the UN Climate Change Conference in Copenhagen on 7 - 18 December 2009)
- Košice Civic Protocol on Water, Vegetation and Climate Change (2009)
- International Journal of Water (IJW, vol. 5, issue 4, 2010), Special Issue on Water and the Complexities of Climate

Impacts of the program

More soft clouds



More soft rain, less flood and drought risks

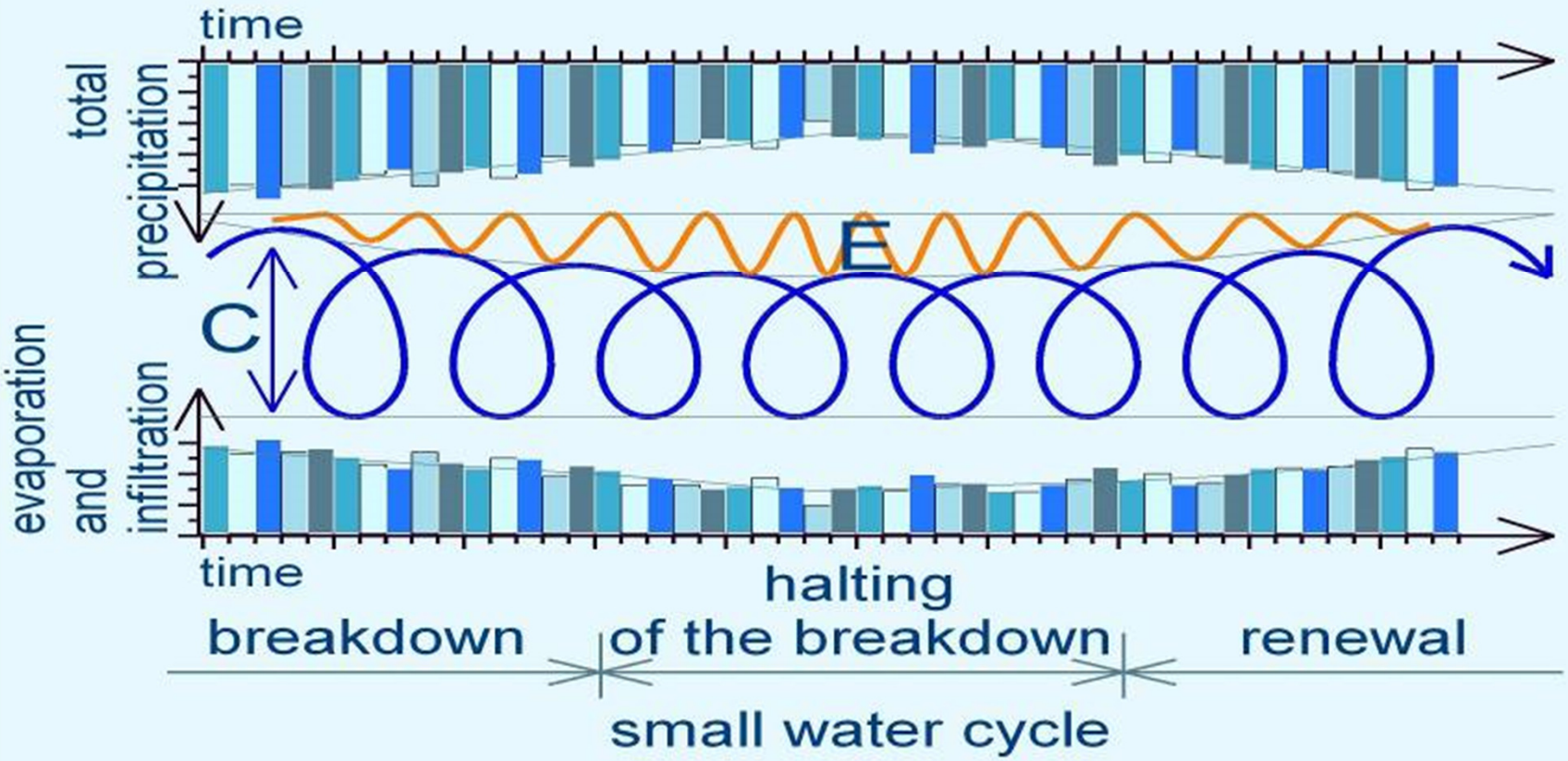
More vapor from landscapes

More vegetation, biodiversity and water

Water retention measures in landscapes

More water in soil

DESTRUCTION AND RENEWAL OF SHORT WATER CYCLE



C - diagram of the circulation of water on land

E - diagram of extreme weather events

Landscape Restoration and Integrated River Basin Management Program for the Slovak Republic

Approved by the Slovak Government on October 27th 2010

Implementation in a settlement

- Approximately 85 000 m^3 of water retention units, measures and system in cadastre of a settlement of medium size (1700 hectares)
- Implementation in a medium size settlement – 3 years with team of 10 local employees and team leader
- max. cost: 4€ per 1m^3 o water retention measure
- Cycle use of the capacity created (of water retention measures) for rain water retention and utilisation (evaporation, infiltration, cooling effect, biodiversity, flood and drought prevention)

Some facts

- CO2 - basic component of photosynthesis
- 700 kW of less sensible heat in the atmosphere per 1m^3 of evaporated water = temperature decrease of 80 000 m^3 air for 1 ℃
- High differences in temperatures between forest and urban areas
- these types of measures have highest and immediate impacts to reduce flood risks and droughts risks and economical damages from 10 % - 80% based on scale of measures implementation and size of the territory

First year of implementation 2011

Start implementation project 2010 - (23 settlements)

- 580 000 € – Office of the Government (prime minister)
- 341 jobs for 3 months period
- 140 500 m^3 of water retention measures / waterholdings

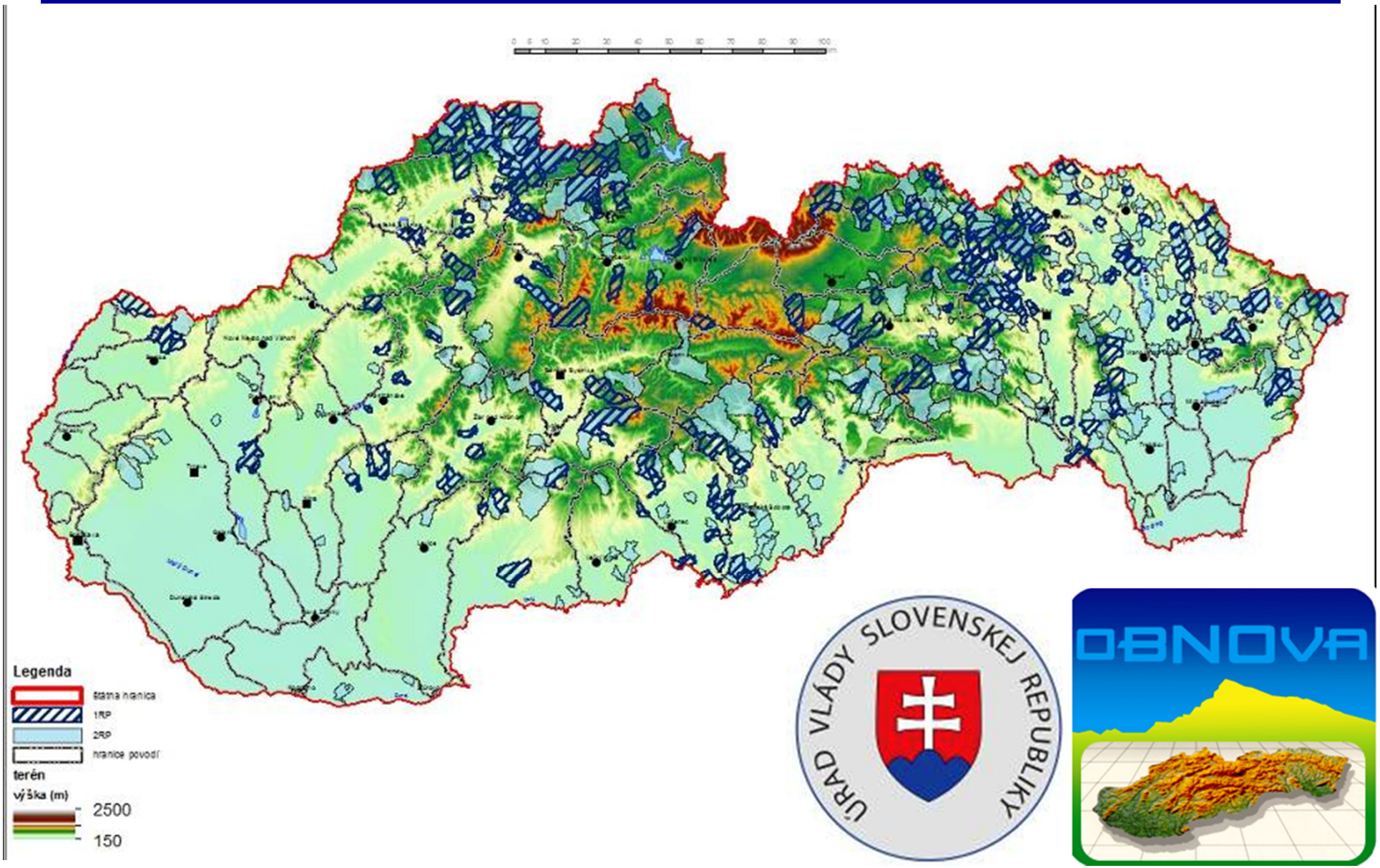
First implementation project 2011 (190 settlements)

- 24 mil. € – Office of the Government + ESF
- 3 500 jobs for 6 months period
- 6 million m^3 of water retention measures / waterholdings

Second implementation project 2011 (350 settlements)

- 18,5 mil. € – Office of the Government + ESF
- 4 200 jobs for 6 months period
- 3,9 million m^3 of water ret. measures / waterholdings

488 communities involving to the Government Landscape restoration program in 2011



Examples of measures

Stakeholders, meetings, presentations and teams


ŤAHANOVCE


Orlov


Povinná


Snežnica


Pčoliné


Hlohovec


Hlohovec


Ždiar


Kyjov


Turcovce


Krivany


Hervartov


Dúbrava


Jakubany


Matysová


Orlov

Fričovce


Zázrivá


Krivany


Krivany


Nižný Slavkov


Brehy


NIŽNÉ REPÁŠE
11.07.2011 19:23


Malý Šariš - Šťastná


Bogliarka


Choňkovce

Hrnčiarske Zalužany


Ožďany

Opportunities of implementation depending on scale

Landscape Revitalisation Programme in Slovakia
– first (start) year of implementation 2011

7 700 seasonal jobs / costs 43,5 million € / capacity 10 million m^3 of water retention measures created in year 2011

Estimation for:

- **Global program** – 50 million jobs / 500 billion € / year
- **European Program** – 2,6 million jobs / 38 billion € / year
- **Danube River Basin Program** – 0,2 million jobs / 2,9 billion € / year

You are welcomed to visit various implementation projects in Slovakia

For more details on publication **„After us the desert and the deluge?“** on www.peopleandwater.sk