

ITMS code: 26220120062  
 Applicant: Institute of Hydrology SAS  
 Partner 1: Slovak University of Agriculture in Nitra  
 Partner 2: Technical university in Zvolen  
 Realisation: 10 / 2010 – 06 / 2013  
 Sites of realisation: Michalovce, Hollého 42  
 Liptovský Mikuláš, Ondrašovská 16  
 Nitra, Trieda Andreja Hlinku 2  
 Nitra, Hospodárska 7  
 Zvolen, T. G. Masaryka 24

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Operational programme: 2620002 OP Reasearch & Development  
 Priority axis: Priority axis 2 – Support to research and development  
 Arrangement: 2.1 Support of networks of excellence in research and development as the pillars of regional development and support to international cooperation  
 Call code: OPVaV-2009/2.1/03-SORO

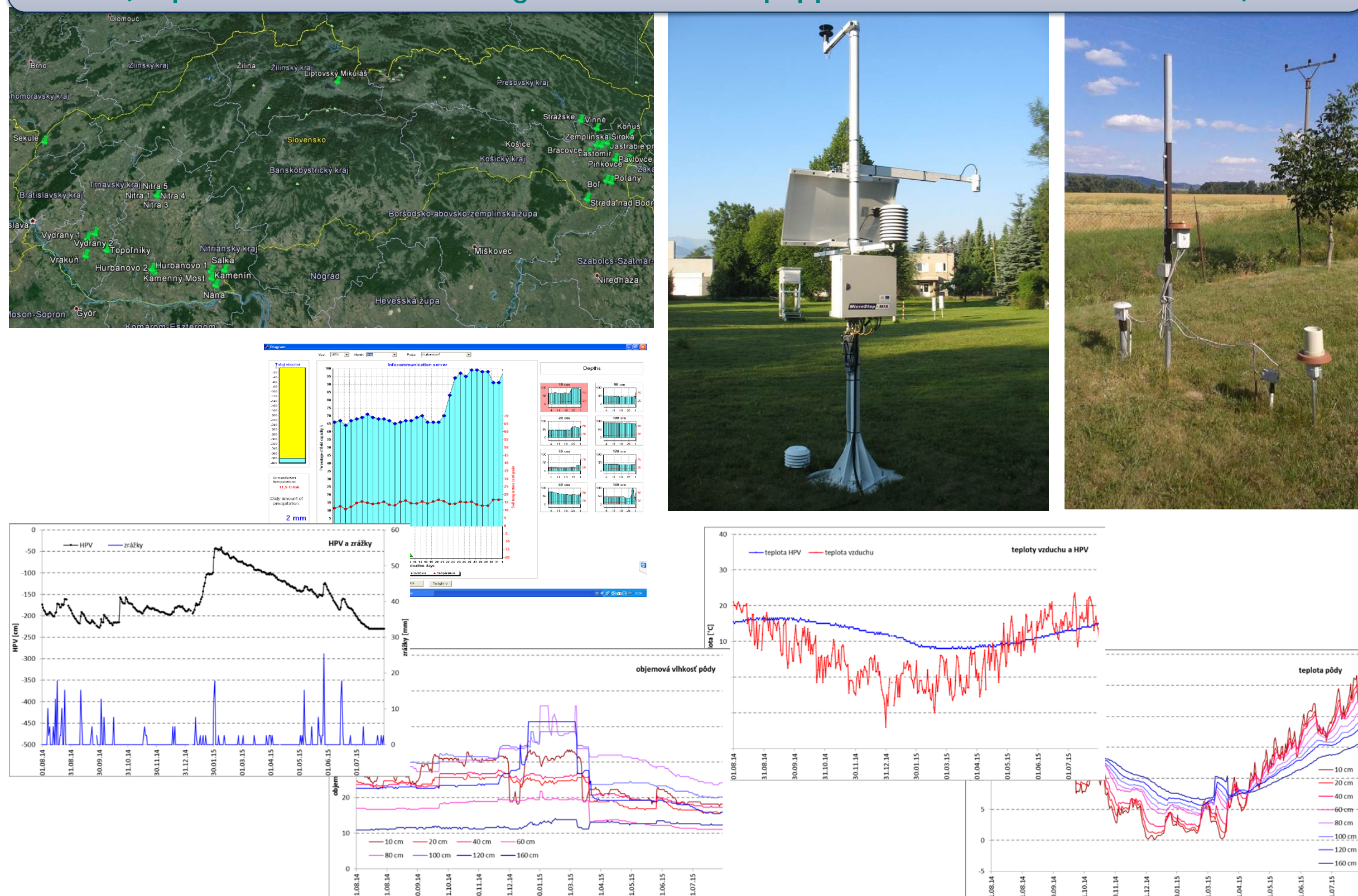
**The main project objective:** To create centre of excellence for integrated management of river basins in the area of water management in the country in conditions of climate change

**The main results of the project:**

- In selected localities was introduced continual monitoring of soil's water storage together with flow measuring and measuring of meteorological and climatical elements.
- Obtained were devices for acquiring basic physical, chemical and hydrophysical characteristics of soils, physical and chemical properties of water, meteorological and climatic characteristics, the characteristics of the vegetation cover and topographical data from the river basins.
- Ensured were software and hardware equipment for the research centre to simulate soil moisture regime, groundwater level regime, water balance in the catchments and to analytical expression of input data into simulation models.

During the implementation of the project it was purchased large number of devices and software. This poster presents only selected and most important devices obtained by Institute of Hydrology SAS.

The automatic monitoring kit for moisture and soil temperature, rainfall and groundwater level (35 probes distributed throughout Slovakia, equipped with data teletransmission)



System for field measurements of electrical conductivity and induced polarization of soil profile



Device for highly accurate measurement of the concentration of oxygen isotope and deuterium in water samples (PICARRO)



Instrument assembly for measuring the speed of water flow in natural river channels - Doppler principle



Arrangement for measuring water flow and geometry of the flow profile in the open riverbeds



Laser particle size analyzer (Malvern Mastersizer 2000)



Set for soil pF-determination (max pressure 15 bar)



Calciometer (Eijkelkamp)



Air pycnometer (Eijkelkamp)



Soil water permimeter (Eijkelkamp)



Instrument for measuring the flow rate of water in the natural river channels (SonTek FlowTracker – 3D)



The system for measuring leaf area index (LAI) of forest cover (Delta-T Devices HemiView)



Total station (Leica FlexLine TS02)



Guelph permeameter (Soilmoisture)



Multi-spectral digital camera (TETRACAM ADC)

