KaraWAT: Strategy for the sustainable management of water resources in the Karawanken UNESCO Global Geopark

Schmalzl, L. (1); Hartmann, G. (2); Rman, N. (3); Zierler, J. (1); Jungmeier M. (1)
Organisation: 1: Carinthia University for Applied Science; 2: EGTC Geopark Karawanken; 3: Geological Survey of Slovenia (GeoZS)

Background
The European Grouping of Territorial Cooperation (EGTC) Geopark Karawanken GmbH is a cross-border association of four Slovenian and nine Austrian municipalities. Within the frame of the INTERREG VA SI-AT project KaraWAT it is developing a bilateral water management strategy for the cross-border area with the support of one Austrian and one Slovenian research institution (CUAS, GeoZS). The strategy includes a catalogue of actions for the municipalities, which propose measures for the protection and sustainable use of groundwater and surface waters. The focus lies particularly on the topics of flood protection and natural hazard management, the importance of a climate-smart forests to support water management, possible activities of municipalities for the protection of the transboundary Karavanke groundwater body as well as the revitalisation and valorisation of significant springs. The strategy and other project activities are being developed with support of local, regional and supra-regional actors and experts from both countries.

Selected Results
Identification of water resources and risks in the Karavanke Geopark and development of a trilingual (German, Slovenian, English) web viewer, as an entry-point to water-related data of both countries.

Pilot region of Eisenkappel
On-site investigations and LiDAR scans of a forest plot in Leppen valley to analyse the forest structure and its influence on the water balance.

Ideas for the valorisation of mineral water springs, developed with the support of interested spring owners, local and regional actors as well as experts in hydrogeology.

Pilot region of Peca
Installation of two monitoring stations at karstic springs (Topla mine and Sumeč spring).

Pilot Region of Ravne na Koroškem
Preparation of hazard maps (erosion, mass movements) and a hydrogeological map.

Chemical investigations and quantity tests of mineral water springs.

Conclusions
The INTERREG VA SI-AT project KaraWAT offers applied research on cross-border management of natural resources by the example of water. Within the EGTC essential cornerstones of joint decision-making, financing and legal frameworks are defined on a long-term basis. This facilitates collaboration between municipalities to jointly tackle identified challenges for the protection and sustainable use of water resources within the Geopark area. From the perspective of a University of Applied Sciences, cross-border and foreign project partners open up practice-oriented research and educational fields.