The Upper Danube Catchment (UDC) is a mountainous, heterogeneous catchment. Its altitude ranges from 287 to 4049 m.a.s.l., precipitation from 650 to over 2000 mm/a, and average annual temperature from -4.8 to +9°C, evaporation from 0 to 550 mm/a, and runoff from 150 to 1600 mm/a. Seasonal and interannual temperature and precipitation variations are considerable.

GLOWA-Danube (www.glowa-danube.de) is one of five projects within the GLOWA program (www.glowa.org). Its aim is to provide an integrated approach to predicting changes in the hydrological cycle due to Global Change in the Upper Danube Catchment (approx. 77,000 km²). GLOWA-Danube considers both the influence of natural changes in the ecosystem, such as climate changes, as well as social changes, e.g., changes in land use or water consumption.

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The results were created using the climate scenario “REMO-Baseline” (based on the trends provided by the UBA-MPI REMO model for the region) combined with the other maps.

The chosen parameters represent some of the most representative and recommended by the Water Framework Directive (WFD) for Groundwater Quality: Nitrate, pH, and Electrical Conductivity. The maximum values accepted are those defined by the German standards for Drinking water. A major aspect is regional availability of data.

The results were created using the climate scenario “REMO-Baseline” (based on the trends provided by the UBA-MPI REMO model for the region) combined with the socioeconomic scenario “Performance” (free air policy). (6)

**References**


