



Advancing climate change information system to foster adaptation in Hungary

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The establishment of the National Adaptation Geo-information System (NAGiS) laid the foundation-stone of an objective adaptation strategy making in Hungary. The basis of the system is observed and modelled gridded climate data, which provide consistent and quantified input for the impact studies. Within the RCMGiS partner project, two simulations were achieved for the future, using different regional climate models (RCMs) and different scenarios. However, the construction of such ensemble is a poor man's solution, since do not allow us to distinct the source of uncertainties.

Within a national funded project – implemented by the Hungarian Meteorological Service (OMSZ) between 2016–2020 and titled “Assessment of climate change impacts in Hungary with regional climate model simulations and development of a representative climate database (KlimAdat)” – our ensemble system is being developed. Three new 10 km horizontal resolution simulations are being accomplished with the ALADIN-Climate and REMO RCMs over Central and Eastern Europe using RCP4.5 and RCP8.5 scenarios. Since impact models may require large computational resources, the projections need to be transferred to the end-users in a user-friendly, comprehensive way that inseparably contains uncertainty information.

To get acquainted with and fulfil user needs, consultation workshops – that proved to be an efficient method for the interdisciplinary collaboration in our earlier project – is organised within the project. The aim of these events is also to train and support the users on how to utilize and properly interpret climate projection results.

The presentation is going to introduce our climate service activity, putting the focus on providing probabilistic information and uncertainty estimation about future climate change.