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### **Socio-economic forecasting for Hungary related to climate change**

Socio-economic impacts of climate change and its territorial consequences have become important research topic in the past decades. Extreme meteorological events caused by climate change increase social and economic vulnerability of local communities; therefore adaptation to changing conditions and circumstances is becoming relevant issue. There have been a number of regional projects aiming to examine causes and effects of climate change on local communities from various perspectives.

Our project aims to support the adaptation process by providing a scientific ground for territorially specific actions, spatial strategies, flagship projects as well as enhancing the climate-related knowledge base and awareness of decision makers, professionals and the general public in Hungary.

The presentation consists of two major structural parts. The first theoretical part investigates international and Hungarian results of climate modelling on global and regional scale, and, in particular, it analyses the inclusion of social and economic indicators in these models. The empirical part contains a forecasting model about socio-economic processes related to climate change in Hungary through 2050, on the scale of NUTS 3 and LAU 1 as well as on a 10x10 km grid. This model focuses on demographic processes with the statistical indicators of population by number, age and gender. The main added value of the project is that it delivers spatially disaggregated data on future socio-economic, especially demographic trends in Hungary and links these processes to climate change, thereby addressing the needs of those social groups most vulnerable to climate change.

Our study introduces the most important results and theoretical-methodological experiences of this research project supported by the EGT Grants and carried out by the Centre for Economic and Regional Studies in Hungary (HAS). These outcomes will offer significant contributions to enhance climate change adaptation, design and implement spatially focused measures, establish local adaptation strategies and increase climate-awareness of local communities and actors from related policy and decision-making fields.

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