

Humboldt Kolleg

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### *Global Challenges of the 21<sup>st</sup> Century*

1) *Technological development and human health/ quality of life*

2) *Climate change and environmental sustainability*

3) *Democracy and cohesion in Europe*

### *Climate Change Hotspots in Europe: Implications for Food Security*

Human induced global warming will trigger a broad range of environmental and socio-economic impacts across Europe. For several impact areas there is a clear north-south divide in Europe: countries in the south will be impacted more by global warming compared with the northern parts of Europe. Rising temperatures will have an impact on labor productivity, agricultural productivity, energy demand, flood risk, forest fires, etc. Agriculture is one of the rare sectors which contributes to climate change mitigation but will also need an adaptation. This has direct implications for future food security on European as well as global level. This paper will present the expected climate change in the future with implications for food security. It will focus, on the regional level, on south-eastern Europe, which is one of the climate change hotspots.

**Andrej Ceglar** is an agro-meteorologist. He has been actively involved in many scientific research activities in different fields of environmental sciences, spanning over climatology, environmental physics, agriculture, hydrology, forestry, with modelling and big-data analyses being a common denominator of all his activities. Dr Ceglar's main interest has always been to integrate different scientific disciplines in a multidisciplinary framework in order to better understand the complexity of the environmental systems.