South German Climate Office Süddeutsches Klimabüro

Karlsruhe Institute of Technology (KIT)

- KIT-Center Climate and Environment
- Institute for Meteorology und Climate Research
- and many more...

Associated Partners

- Landesanstalt für Umwelt, Messungen und Naturschutz Baden-Württemberg (LUBW)
- Bundesanstalt f
 ür Gewässerkunde (BfG)
- German Aerospace Center (DLR-IPA)
- University of Bayreuth
- University of Frankfurt
- University of Freiburg

University of Hohenheim

University of Trier



- KIT
- Regional Helmholtz **Climate Offices**

Regional Helmholtz Climate Offices

www.klimabuero.de

- South German Climate Office, KIT, Karlsruhe
- Climate Office for Central Germany, UFZ, Leipzig
- North German Climate Office, HZG, Geesthacht
- Climate Office for Polar Regions and Sea Level Rise, AWI, Bremerhaven



The South German Climate Office promotes the exchange of information between climate research and society. There are four Regional Helmholtz Climate Offices in Germany, each with its own thematic and regional focus.

Our office provides access to the expertise of KIT and associated partners. The focus is southern Germany and the main topics include regional climate modelling and extreme weather events.

SÜDDEUTSCHES



Contact

Prof. Dr. Christoph Kottmeier Dr. Hans Schipper

Wolfgang-Gaede-Str. 1 76131 Karlsruhe

+49 721 608 42831 phone fax +49 721 608 46102 email klimabuero@kit.edu

www.sueddeutsches-klimabuero.de web

Publisher

Karlsruhe Institute of Technology (KIT) KIT-Center Climate and Environment

Karlsruhe © KIT 2011

printed on 100% recycling paper (eco-label "Blauer Engel")

www.kit.edu



Global Causes, **Regional Impacts**

Connecting Science and Society

SOUTH GERMAN CLIMATE OFFICE SÜDDEUTSCHES KLIMABÜRO



KIT – University of the State of Baden-Wuerttemberg and National Research Center of the Helmholtz Association

South German Climate Office Süddeutsches Klimabüro

Dimensions of Climate Change

The consequences of global warming and the human contribution are widely discussed. Climate research develops climate scenarios and identifies future challenges. The media and decision makers in politics and economy have an increasing demand for this information.

The impact of global climate change depends on the region. Mitigation and adaptation require global and regional strategies.

Climate offices communicate between climate research and society to provide information needed to plan for the future.



"How will climate change where I live?"



"How reliable are climate model predictions?"

"Will the number and intensity of extreme weather events change?"

Services

The South German Climate Office selects and provides results of climate research. The regional focus is based on the expertise of institutes at the KIT and of associated partners in southern Germany.

We provide a link between research institutes and society. Requests are processed and user specific information on climate change is provided to interested parties from media, economy, politics, and public institutions.

We identify further research, which is communicated to competent research groups.

Selected Fields of Competence

- Regional climate models with high resolution
- Regional climate scenarios
- Aerosol and cloud processes
- Natural disasters, trends in climate change
- Water drainage, flooding, and water management
- Waterways
- Limnology
- Atmospheric trace gases
- State and development of the ozone layer
- Climate impacts on forestry
- Material cycles in ecosystems
- Impact of air and road traffic on climate
- Energy supply and climate change
- Technologies for emission reduction

Regional Climate Model

"new" GCM*

"old" GCM*

Example of the influence of horizontal resolution of climate models on the orography

* GCM = Global Climate Model