The overall aim of the project is to analyze and quantify the costs and benefits of climate change and adaptation in Germany - differentiated with respect to spatial regions, economic sectors and social groups at different scale levels. The project interlinks an institutional analysis with economic modeling and an extended cost-benefit analysis.

Aims: Understanding the link between existing institutional settings and different approaches to adaptation by local actors

Methods: Case study comparison and in-depth social research

Expected Results: Isolation of specific combinations of key organizational factors within local governance for a successful implementation of adaptation strategies

Integrating climate change impacts

Aim: Simulation of economic climate change impacts for Germany until 2050

Methods: Expansion of the macroeconomic model PANTA RHEI with a climate change impact module and extension of the simulation horizon until 2050

Expected Results: Economic effects of climate change in tables and graphs

Modeling adaptation to climate change

Aims: Analysis of macroeconomic effects of selected climate adaptation strategies for Germany;
Development of a regional Input-Output-model for calculation of macroeconomic effects of several adaptation strategies for selected regions

Methods: Simulation with the macroeconomic model PANTA RHEI;
Application of a regional Input-Output-model

Expected Results: Quantification of the effects of alternative adaptation strategies on national and regional GDP, employment and other economic indicators

Aims: Development of a methodology for integration of alternative normative foundations into an extended cost-benefit analysis of climate change and adaptation strategies

Methods: Application of alternative valuation methods (e.g. happiness and capabilities approaches) on climate adaptation measures within a case study

Expected Results: Evaluation of selected adaptation measures in different normative currencies

Project Homepage: www.oekonomie-klimawandel.de