

Methods of Climate Change Adaptation

In the Wuppertal Institute's research projects on climate change adaptation the various debates and disciplines are always consolidated. The subjects of research are usually technical infrastructure and urban development with particular consideration of their interfaces and their social integration and design. Proposed options of climate change adaptation take into account the general development of society and the related processes of transformation. As part of a strategic policy advising the Institute supports public and private institutions in developing integrated approaches to climate change adaptation. Conceptually, this requires the use of a wide range of research methods and process-related instruments.

Methodologically, an integration of different requirements is, e.g. possible by using backcasting processes, which include the following steps:

- strategic problem orientation by taking the impacts of climate change into account (analysis of the current state, influence of social transformation on the policy area, definition of basic goals and evaluation criteria)
- development and evaluation of scenarios (also by means of participatory processes) regarding the interface between the energy sector, transport, water management and urban structures (with information and communication technology (ICT) as an interface technology)
- condense the scenarios into concise concepts that are capable of discourse; participatory strategy development to turn visions of a desirable future into an actual achievement and implementation through plans of action or roadmaps
- analysis of the institutional capacity to manage crises; resilience and security of supply as a governmental task
- participatory conception of governance (including knowledge management); integration of the goals of climate change adaptation into other policies (mainstreaming)

In the accompanying research of the processes of climate change adaptation the following methods were used:

- multi-criteria assessment of climate adaptation measures (e.g. sustainability check as part of the Climate Protection Plan of North-Rhine Westphalia)
- policy analysis to assess the level of activity and the passed policy cycles
- conceptual framework for the co-evolution of governmental policies and stakeholder activities (see figure for a proposal for a future policy design)
- evaluation of communication concepts and transfer programmes
- instruments of efficient knowledge management: knowledge profiles, knowledge maps, expert pools
- case studies

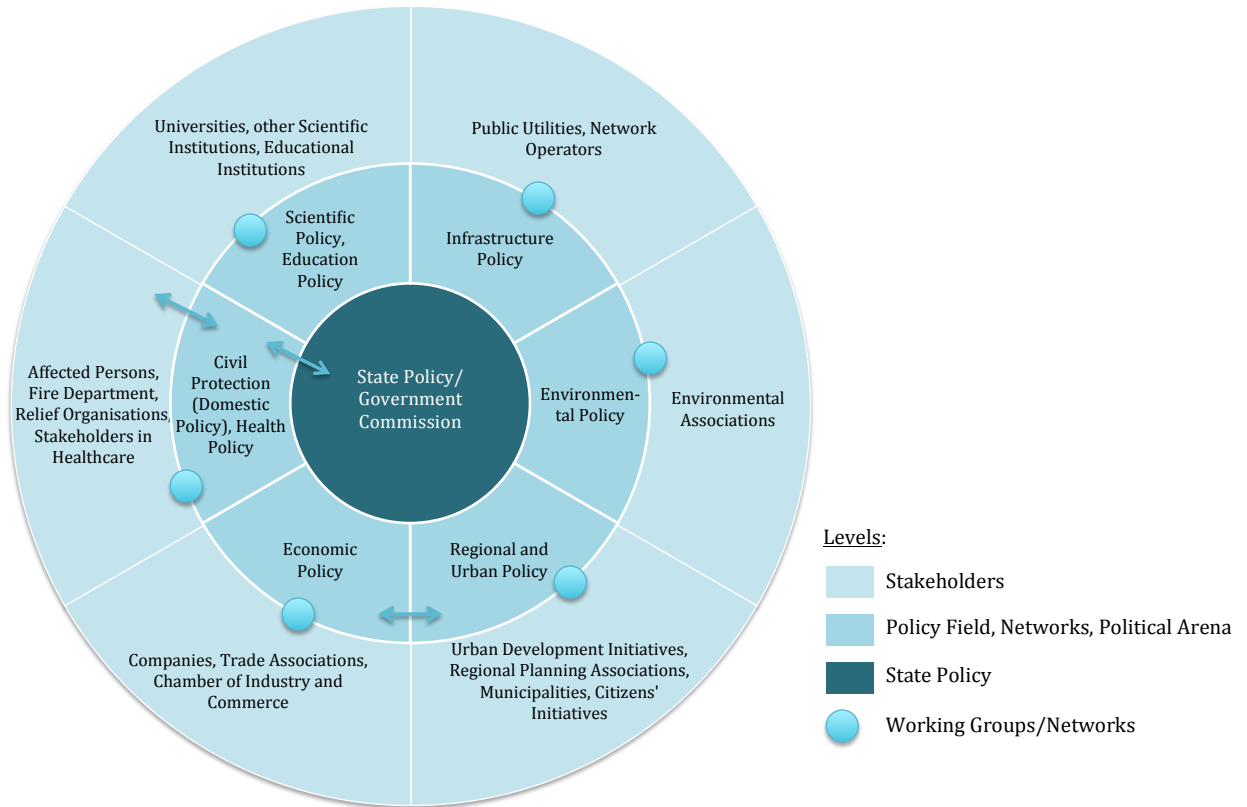


Figure: Proposal for a Future Policy Design for Climate Change Adaptation

The aim of this framework is to create a „structure of responsibility“ by giving the governmental policies and stakeholder activities a common thematic structure.