



## Adaptation Strategies to Climate Change and the Role of Planning Instruments - The Example of the Dresden Region (Saxony/Germany)

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Abstract prepared for the

European Geosciences Union (EGU)

General Assembly 2009

NH 1.6 Adaptation strategies to Climate Change for mitigation measures and protection systems in natural hazard management

Vienna, Austria, 19 - 24 April 2009

### Abstract

In the past, identifying anthropogenic influences on climate change, scenario analyses and issues of climate change mitigation were predominant approaches in climate change research (IPCC 2007). Currently, for instance in Germany, climate impact research on regional level comes to the forefront of research and policy making. Climate change has become an important topic on the agenda of politicians, administration and planning. In order to counteract the (unavoidable) climate change and its impacts it is necessary to develop adaptation strategies. At present, such strategies and guidelines are formulated on international, supranational and national level. The initial point was the United Nations Framework Convention on Climate Change in 1992 where the contracting states obligated themselves to develop national (and regional) programmes for adaptation. In 2007 the European Commission published its Green Paper called Adaptation to Climate Change in Europe. The paper states that adaptation efforts have to be intensified at different (spatial) levels (local, regional, national, and so forth). Furthermore, coordinating these efforts is of high importance. With the recent agreement on the German Adaptation Strategy to Climate Change (DAS 2008) in December 2008, federal government tries to accomplish this task. The German strategy mainly focuses on two elements: decreasing vulnerability and increasing adaptability.

While the above mentioned strategies have presented information and policies concerning climate change and adaptation on international, supranational and national level, such documents don't yet exist on regional level. However, because of their close link to the local level the regions are of high importance for adaptation strategies. Therefore, the Leibniz-Institute of Ecological and Regional Development developed a transdisciplinary project to formulate and implement the so-called Integrated Regional Climate Adaptation Programme (IRCAP) for the Model Region of Dresden (project REGKLAM). The REGKLAM-project is based on regionalised scenarios of climate change and includes measures of climate change adaptation to change for instance, urban form, infrastructure assets (e.g., reservoirs) and land use. Various institutions from politics, administration, economy, and research as well as civil society are involved in the project (the city of Dresden, several ministries and authorities of Saxony, the Dresden Chamber of Industry and Commerce and the University of Dresden). The IRCAP is planned to be an informal, cross-sectoral instrument of adaptation to climate change. As a regional programme, the IRCAP is addressed to decision-makers of the region of Dresden (defined, for instance, as planning region). Its function is to complement and coordinate existing instruments and measures. These instruments also include instruments of environmental and spatial planning on the regional level.

Spatial and environmental planning can rely on a wide range of formal and informal instruments on different spatial, administrative, and sectoral levels, e.g. land use and landscape plans. Our contribution to the EGU conference aims to clear the role and relevance of the existing formal and informal planning instruments in the region of Dresden for the process of developing the IRCAP. Firstly, a survey is conducted for the purpose of identifying all relevant planning instruments. The identification process is based on specific criteria, for example: reference to the region, contents relating to the topic of climate change respectively climate adaptation. Secondly, the presentation argues for a selection of those planning instruments which seem to be most relevant for the process of developing an IRCAP. This selection process is based on specific criteria which include, for instance, complexity of expected effects, reference to regional and sectoral vulnerability, opportunity for future change of the existing planning instruments (e.g., current process of updating), interests of project partners and stakeholders. Thirdly, as a result, an overview of relevant planning instruments in the region of Dresden is shown, including their current status and statements about their relevance for the topic of climate adaptation strategies. Finally it is derived that this procedure provides a basis for the following possibilities: Adapting existing planning instruments, integrate contents of existing planning instruments in the IRCAP process, or develop and define new strategies or measures on the way to an IRCAP.