



Integrative watershed management under climate change conditions - A comparison of major issues, research methods and problem solving strategies in Quebec and Bavaria

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Climate change is in progress and affects many economic, social and ecological developments on various temporal and spatial scales and patterns. Reliable assessment of the potential CC-impacts is necessary on a regional level to develop suitable adaptation strategies to minimize adverse effects and to optimize possible benefits. The poster presents the recently launched joint research initiative between the Consortium Ouranos (Quebec, Canada) and the University of Munich (Bavaria, Germany), conjointly funded by the Quebec Ministère du Développement économique, de l'Innovation et de l'Exportation (MDEIE) and the Bavarian Ministry of the Environment. The study is intended to:

- (a) compare key issues and technologies in assessing natural and socio-economic impacts of regional climate change
- (b) identify issues and working fields for scientific and technical exchange of core competences
- (c) evaluate the possibilities for coupling existing modelling techniques for integrative water resources management
- (d) perform the required adaptations of modelling systems to the hydrologic and socio-economic conditions (land use, industry, etc)

The work flow is divided in two parallel working packages:

WP-1: Integrated hydro-meteorologic modelling in selected test-areas in Quebec and Bavaria

WP-2: Conceptualization and design of a framework and network for integrated global change research

The study shall provide the basis for a long-term collaboration in research and development of integrative watershed management tools. These shall be based on simulation models to retrieve optimized adaptation strategies and decision alternatives for a sustainable utilization of natural resources under conditions of global and climate change. The strategies for a concise science-stakeholder-dialogue are emphasized and preliminary hydrological modelling results of two tested sites (Chateauguay, Ammer) will be presented.