

## **Regional climate services – the case of Hamburg and the Elbe estuary**

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Regional and local stakeholders have often to include climate knowledge in their planning of the future. In particular they need knowledge chiefly about options and needs for adaptation, but also about options of regional and local geo-engineering such as urban planning for reducing urban heat island effects. In both cases, a regional and local dialog between science and stakeholders, including the public and policymakers, is needed.

In the GKSS-Institute of Coastal Research we have established the regional "Norddeutsches Klimabüro", which acts as a knowledge broker between regional climate science (at GKSS in Geesthacht and CLiSAP in Hamburg) and regional and local stakeholders in the metropolitan area of Hamburg and in the Elbe estuary. The task of this "Büro" is to provide scientific knowledge for stakeholders and to link the scientific questioning to problems encountered by stakeholders. Its toolbox comprises regular personal exchanges, the consistent and homogeneous data set "CoastDat" about ongoing and possible future climate, climate change and climate impact, and the collection and assessment of available (and lacking) knowledge about regional and local climate and impact issues. The data are made accessible to the general public through a web-page named "Norddeutscher Klimaatlas", which provides perspectives for future regional climate developments (<http://www.norddeutscher-klimaatlas.de/>). The presently available knowledge (including assessments of agreement and disagreement and lacking knowledge) is documented in a "Klimabericht für die Metropolregion Hamburg", a first draft of which was made public in November 2009; the final report is expected to be published in November 2010 ([http://www.gkss.de/institute/coastal\\_research/projects/klimabuero/reports/index.html](http://www.gkss.de/institute/coastal_research/projects/klimabuero/reports/index.html)).

An important element of any climate service is the recognition that scientific knowledge is not per se accepted as superior in the public arena. Instead, culturally constructed knowledge claims compete with scientifically constructed knowledge claims. Even if it may appear plausible that science is a better advisor of political and economic decisions, it is often culturally constructed understanding of complex phenomena, which dominate the decision processes. To help making scientific arguments to "win" this competition, science must understand the competing knowledge claims, and must examine the utility of scientific knowledge in dealing with problems related to climate policy. An important concept to this end is "postnormal science", which applies for climate research in general. Successful regional and local climate service needs the engagement of both natural and cultural sciences.

### **References**

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