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## **Knowledge generation vs. decision processes - the issue of regional climate service**

Climate science, the process of generating knowledge about the state and dynamics of climate, climate change and climate impact, is motivated not only by the traditional curiosity for better understanding of an otherwise complex world, but more and more so by the application-driven need for information and insight, which constrains the various public and economic decision processes. The latter takes place in a “postnormal” environment, where “facts are uncertain, values are in dispute, stakes are high and decisions are urgent”. In such an environment, competing knowledge claims compete for the public recognition of providing “right” insights, with considerable political and/or economic implications.

Climate science has to acknowledge this challenging situation, by reflecting upon the consequences of the presence of competing knowledge claims (e.g., alarmists, skeptics) and by providing a “regional climate service”. Such a service comprises different elements. One element is data sets describing possible futures as well as recent and ongoing changes, and the consistency of past and futures. Another element is the assessment of the scientifically legitimate knowledge about climate, climate change and climate impact in the region of interest. An important issue is the determination of the degree of consensus and of disagreement within the scientific community. Finally, a dialogue has to be built between scientific actors and the public and decision makers.

At the Institute of Coastal Research of Helmholtz-Zentrum Geesthacht, such a regional climate service has been established, involving the International BALTEX Secretariat and the “Norddeutsches Klimabüro”, who have prepared reports about the available climate knowledge in the Baltic Sea Region (BACC) and in the metropolitan region of Hamburg, have assembled data sets of ongoing and possible future climate change in the data set “CoastDat” and “Klimaatlas”, and have established a dialogue with public and decision makers.

## **Personal profile**

Prof. von Storch is director of Institute of Coastal Research of the Helmholtz Zentrum Geesthacht and professor at the Meteorological Institute of the University of Hamburg. His research interests are climate diagnostics and statistical climatology, regional climate change and its transdisciplinary context. He has published seventeen books and numerous articles.

He is involved in the Fifth Assessment of the IPCC as a lead author in Working Group II, and as a contributing author in Working Group I. He supervised the assessments of scientific knowledge about climate, climate change and impact in the Baltic Sea Region (BACC) and the metropolitan region of Hamburg.

In 2008 he was awarded a honorary doctorate by the University of Göteborg, and in 2010 he received the award of the International Meeting of Statistical Climatology.

When a photo is needed, refer to <http://fotos.web.de/hvonstorch/hans-public>