Abstract for

29-31 August 2016 - Nordic Conference on Climate Adaptation, Bergen

Hans von Storch:

## Climate Servicing – limits and obstacles

The idea of climate services have been built following the idea of weather service, which traditionally is the process of informing various stakeholders about the details of the weather to come in the near future and about risks in a stationary climate. This process is mostly a one-way flow of information, with a knowledge producer on the side of meteorology, and mostly detached users. In many cases, this flow of information can be maintained by web-pages and conventional news media such as TV.

While building climate service in the tradition of weather service makes sometimes sense, it often fails to build and share useful knowledge. Major obstacles are the presence of alternative knowledge claims, and a post-normal situation. The quality of any such service is also an issue. These challenges exist also for weather servicing, but to a much smaller extent.

Alternative knowledge claims: Very roughly, knowledge claims about climate change may be differentiated in three classes – the assessment of IPCC and similar bodies, who try to determine the extent of consensus and dissents about climate change, without specifying political and economic consequences; - "skeptics", who either find the natural a science analysis invalid or object the political conclusions drawn; - "alarmists", who use the narrative of climate change as a tool to "improve" the world order and economy. Everybody is influenced by such positions, and most will filter information provided by climate services to make them consistent with their a-priori knowledge system. Thus, any exchange of scientific knowledge should take into account the presence of competing knowledge claims.

**Post-Normality**. Science is named "post-normal", when it operates in a set-up, so that the scientific knowledge is un avoidably uncertain (such as the value of the climate sensitivity), when politico-economic decisions are urgent (to have a sizeable reduction of greenhouse gas presence in the atmosphere, emissions are needed to be significantly reduced in the very near future), societal values are in dispute (how do we value future?), and stakes are high (a policy like Klimawende is very expensive and has massive consequences for fabric of world economy). In a post-normal situation, societal actors try to employ science as a support for their agendas; the value of scientific results is more its utility and less so the quality associated with scientific methodology.

**Quality**: Since planners have to take the issue of regional and local climate change into account when planning for adaptation (of, say, infrastructure or urban growth) – they are in need for guard rails of possible future change. This need invites various providers of "predictions" of futures, which will give answers to the planners' questions, which may, or may not, be rooted in solid understanding of the robustness of available formally very detailed scenarios of possible future change. Again, a competition of world views but also of prices for the service may arise.

Weather services operate with systems of **certification**; maybe such a system should also be established for climate servicing. Such a system would, however hardly overcome the challenges of multiple knowledge claims and of impacts of vested interests, as described in the concept of postnormality.