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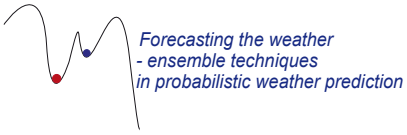

Challenges in communicating new climate scenarios based on representative concentration pathways

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The Swedish Meteorological and Hydrological Institute, SMHI, provides climate scenarios on the national and regional (sub-national) scales as part of the climate services in Sweden. These climate scenarios are available over the internet on three different spatial scales. One follows the weather forecast districts, which are based on climatological features. Another target each of the larger watersheds, which reflects some of the important user needs. The third scale is aggregated per county, which corresponds to how regional administration operates.
Regional climate scenarios have been made available already for the past years, based on the SRES emission scenarios, global climate models and regional modeling. Some of the challenges have been to explain the SRES scenarios to different users, for example with respect to the overall climate scenario uncertainty, how they are best interpreted, and the limitations of climate scenarios. The channels to communicate the SRES scenarios have mainly been reports and fact sheets, the website and informal meetings and seminars with external users.
From year 2010 to 2012 SMHI has been appointed by the Swedish government to specifically target the County Administrative Boards and their municipalities in the development of climate analysis and climate information in order to support climate adaptation efforts. This was added to the governmental instruction to provide general climate services. In these efforts, it has been fruitful to build up and apply dialogue with the county administrative boards as a means to enable insights, facilitate the use of climate information, and promote users' sense of ownership of climate adaptation issues. This has led to a formalization of a user-provider dialogue instead of the former sender-receiver inspired communication.
In spring 2012 new climate scenarios will be derived from updated climates models and the new Representative concentration pathways, RCP, by the SMHI researchers. Many of the former challenges will remain even with the new scenarios. However, as the new RCP scenarios underline the new climate scenarios, not only does one explain the RCPs, but also their relation to the earlier SRES scenarios. The novel approach for SMHI is to apply the dialogue with the County Administrative Boards (created originally as a support to the development of climate services) to expand perspectives on different ways to present the new scenarios.
Here, reflections are presented on the process of developing a pedagogic and efficient way to present new climate scenarios, and to deal with the common question from the users: Which one should I use?