



Assesment of user needs for climate change scenarios in Switzerland

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There is a growing demand to assess and inform about future climate change and its impacts on society and ecosystems and to deduce appropriate adaptation strategies. The basis for such assessments are reliable and up-to-date climate change scenarios on the local to regional scale. In Switzerland, an important step has been accomplished by the release of the climate scenarios in 2011 (“CH2011”). New climate model simulations, an improved scientific understanding and new statistical downscaling tools make an update of these scenarios necessary. An important component toward the new national scenarios “CH2018” are the consideration of user needs in order to ensure that the new scenarios are user-tailored and hence find a wide applicability. The new CH2018 scenarios are developed in the framework of the recently founded National Center for Climate Services (NCCS).

To get a better overview of who the users of climate scenarios are and what they need, a comprehensive market research was undertaken. The survey targeted the most climate-relevant sectors, and considered representatives from administration, research and private companies across Switzerland. The survey comprised several qualitative group interviews with key stakeholders, as well as a written questionnaire, answered by more than one hundred users. Additionally, two workshops were organized to gather the needs in dissemination of climate scenarios.

The results of the survey show the necessity to classify the user needs according to the level of usage: “intensive users” are mainly researchers who handle large climate scenario data for further use in subsequent impact studies; “extensive users” are usually from administrations or consulting companies and perform simple calculations for specific questions or use provided graphics and tables; “facilitators” are usually from media, NGOs or schools and process and disseminate scenario information for a specific target group. The less intensive the usage of climate scenarios is, the more important becomes the need of comprehensibility, clarity and support when disseminating new climate scenarios.

The survey reveals strongest needs for quantitative information on changes in extremes, an aspect that was handled in a qualitative way only in CH2011. Another cross-sectoral need are physically consistent data in time, space and between several variables. For instance, in agriculture the combination of heat and dryness is an important aspect, while the same is true in the energy sector for the combination of wind speed and global radiation (to assess energy production). The majority of interviewees appreciates to have the new scenarios with respect to the same reference period as in CH2011 due to comparability purposes. The survey also investigated the incorporation of provided scenario uncertainty into the businesses of the users. The survey shows that this largely depends on the type of users: while intensive users often can handle uncertainties, there are a lot of other users that either cannot or purposely do not make use of uncertainty.

Results of the user survey will be presented and the consequences for the next generation of Swiss climate change scenarios are discussed.