



KNMI21 Climate scenarios for the Netherlands

Rob van Dorland

KNMI, RDWK, Netherlands (rob.van.dorland@knmi.nl)

At KNMI we started the production of a new set of climate scenarios for the Netherlands. These scenarios will update and replace the current KNMI14 (2014) climate scenarios. We intend to publish these in 2021 directly following the IPCC AR6 WGI report. The KNMI21 climate scenarios can be considered as the translation of IPCC findings to the Dutch situation with additional information using high resolution models and observations. The time horizon will be the near future (10-20 years), 2050 and 2100 (and beyond for sea level rise and ice caps). In the starting up phase we organized brainstorm sessions with the scientists involved to explore the pros and cons of various methodologies in terms of internal consistency, plausibility, human resources and budgetary issues. Also, we organized stakeholders consultations by means of a dialogue session and a survey among the key users of climate information in the Netherlands, e.g. the Delta Committee, water boards and experts involved in the National Adaptation Strategy. Under the framework of KNMI21 climate scenarios we defined several work packages: (1) a generic set of four climate scenarios including transformed time series, (2) sea level scenario's, (3) urban climate scenarios, (4) extreme precipitation, (5) scenario storylines, (6) future weather products and several other specials. As the time frame of the production of the climate scenarios coincides with the new WMO climatological period 1991-2020, we will include an assessment of how the scenarios relate to the observed trends. In the presentation I will focus on the challenges and methodologies of making new climate scenarios as well as on interactions with users of climate information.