



Greining á áhrifum loftslagsbreytinga á vatnafar á Íslandi - Tilviksrannsókn. Philipee Roger Paul. Sjálfstæður ráðgjafi – ágúst 2023.

Samantekt skýrsluhöfundar:

This study presents a comparative analysis of the hydrological response of three Icelandic river catchments to projected climate change in the 21st century. Daily streamflow series were simulated for the period 1981-2100 with the HYPE hydrological model forced with an ensemble of regional climate projections from CORDEX, considering two greenhouse gas emission scenarios. Changes affecting near surface air temperature and precipitation and their impact on mean and extreme streamflow characteristics were analysed. There is a general consensus that air temperature will rise in the future and that precipitation will likely increase in summer and autumn. Projected climate change, if it realises, is expected to have a significant impact on the hydrological characteristics of the three catchments in the future. However, the timing, magnitude and direction of the hydrological response are expected to be different from season to season and from one catchment to another because their characteristics differ.