



Investigation of High-resolution Climate Projections over Turkey and its Surrounding Regions using RegCM4.4

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In this study, projected future changes for the period of 2021-2050 in mean air temperature and precipitation climatology and year-to-year variability with respect to the control period of 1971-2000 were investigated for the domain of Turkey and its surrounding regions via regional climate model simulations. In order to investigate the projected changes in near future climate conditions, Regional Climate Model (RegCM4.4) of ICTP (the Abdus Salam International Centre for Theoretical Physics) was driven by two different global climate models. HadGEM2-ES global climate model of the Met Office Hadley Centre and MPI-ESM-MR global climate model of the Max Planck Institute for Meteorology were dynamically downscaled to 10 km for Turkey and its surrounding regions. The projections were performed based on the RCP4.5 and the RCP8.5 emission scenarios of the Intergovernmental Panel on Climate Change (IPCC).

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