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Assessment of Projected Changes in Temperature and Precipitation Climatology over the CORDEX-Region 9 via Multi-Model Ensemble Mean of CMIP5 Models

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In this study, we conduct a multi-model ensemble mean approach in order to investigate of projected changes in fundamental climate variables (i.e. mean air temperature, minimum temperature, maximum temperature, and precipitation total) over the CORDEX-Australasia domain based on the outputs of various coupled global climate models (GCMs) participating in the World Climate Research Programme (WCRP) Coupled Model Intercomparison Project (CMIP5). In this respect, in order to analyze projected future changes in temperature and precipitation climatology, seasonal averages, and inter-annual variability over the Australasia (known as Region 9) domain, where is one of fourteen domains of the Coordinated Regional Climate Downscaling Experiment (CORDEX), we focus on historical, RCP4.5 and RCP8.5 experiments of the GCMs for reference- (1981 - 2000), near- (2016 - 2035), mid- (2046 - 2065), and long-term (2081 - 2100), respectively.

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