



# Bias Correction of Climate Model Outputs for Climate Change Impact Assessment in Central Kashmir

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**Abstract:** The impacts of climate change are often quantified by impact models whereas impact models typically require high resolution unbiased input data, global and regional climate models are in general biased, their resolution is often lower than desired. Thus, many users of climate model data apply some form of bias correction and downscaling. In this study two correction functions using two methods viz. modified difference approach and linear scaling method were applied for local bias correction of maximum temperature ( $T_{max}$ ), minimum temperature ( $T_{min}$ ) and precipitation data at monthly scales and validated to minimize the bias between the modelled (HAD GEM2-ES-GCM) and observed climate data for the Central Kashmir of great Himalayas. Correction functions derived using linear scaling method at monthly time scale for  $T_{max}$ ,  $T_{min}$  and precipitation were found to be better than modified difference approach for bias correction of the climate data to bring it to close to observed data.

**Keywords:** Bias correction, Climate change, GCM, RCM, Modified difference approach, Linear scaling

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