



A new regional climate simulation using RegCM4 over the CORDEX South Asia domain

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We present a new high-resolution regional climate simulation over the CORDEX South Asia made with the latest version of the Regional Climate Model RegCM4. The simulation has been performed at 25 km of resolution using the ERA-Interim boundary conditions. The simulated results are compared with the monthly mean surface observations for temperature and precipitation over the entire domain.

The rainy season during the June-July-August-September (JJAS) over India shows a bigger improvement using a different parameterization of the MIT-Emanuel convection scheme for land and ocean. Another big improvement has been found with the UW PBL scheme (Bretherton and McCaa, 2004).

The model shows in JJAS season a slight cold bias over the mountain compared with CRU dataset, instead in Indian land area the pattern of the temperature is well represented. The monsoon precipitation over the Indian continent is reasonably represented.

A good agreement was found from the comparison between RegCM4 with the IMD dataset by studying the area weighted average values time series of monthly accumulated rainfall (cm) in Indian land area.