



CORDEX experiment over West Asia domain using the new Regional Climate Model RegCM4.2

L. Mariotti (1), A. Mangani (2), E. Coppola (1), F. Giorgi (1), and S.K. Dash (2)

(1) The Abdus Salam International Centre for Theoretical Physics, Earth System Physics, Trieste, Italy (mariotti@ictp.it), (2) Indian Institute of Technology, Delhi - India

We present the new regional climate simulations over West Asia made with the latest version of the Regional Climate Model RegCM4.2 developed in ICTP of Trieste.

We completed a simulation at 50 km of resolution and the ERA-Interim boundary conditions were used from 1990 up to 2008.

With this new version of the model it is possible to use different convection scheme over the ocean and over land, this combination has been used for this domain, where we used MIT-Emanuel scheme over land and Grell over ocean. The rainy season during the June-July-August-September (JJAS) over India shows a bigger improvement when the double scheme is used.

The model shows in JJAS season a slight cold bias over the mountain and over the India coastline 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 and a bigger bias is observed over the Himalayas. A good agreement was found from the comparison between RegCM4.2 with the IMD dataset by studying the area weighted average values time series of monthly accumulated rainfall (cm) in Indian land area