

Present and Future Climate Extreme Indices over Sinai Peninsula, Egypt

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Abstract : Sinai Peninsula and Suez Canal Corridor are promising and important economic regions in Egypt due to the unique location and development opportunities. Thus, the climate change impacts should be assessed over the mentioned area. Accordingly, this paper aims to assess the climate extreme indices in through the last 35 year over Sinai Peninsula and Suez Canal Corridor in addition to predict the climate extreme indices up to 2100. Present and future climate indices were analyzed with using different RCP scenarios 4.5 and 8.5 from 2010 until 2100 for Sinai Peninsula and Suez Canal Corridor. Furthermore, both CanESM and HadGEM2 global circulation models were used. The results indicate that the number of summer days is predicted to increase, on the other hand the frost days is predicted to decrease. Moreover, it is noted a slight positive trend for the percentile of wet and extremely days R95p and R99p for RCP4.5 and negative trend for RCP8.5.

Keywords : climate change, extreme indices, RCP, Sinai Peninsula

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