

Evaluation of Southwest Monsoon Change over Thailand by High-resolution Regional Climate Model

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The 5x5 resolution Non-Hydrostatic Regional Climate Model (NHRCM) data from Meteorological Society of Japan is used to evaluate the south-west monsoon season that affects to Thailand during mid-May until mid-October in each years. Bulk-type cloud microphysics, Kain-Fritsch convective scheme, Mellor-Yamada-Nakanishi-Niino level 3 PBL scheme, clear-sky radiation scheme and Hirai-Ohizumi land surface scheme are used as the boundary conditions to drive the climate model under RCP 8.5 increasing of CO₂ condition. This research is included of 2 time periods, base part (1981 –2000) and future part (2080 –2099), to estimate changes of the onset and the end of south-west monsoon season over Thailand by considering the changes of 2 variables, average wind vector and cumulative precipitation in consecutive 5 days (penta day). Furthermore the rain-break phase, less precipitation ranges during the south-west monsoon season, has been added and showed the variation in each years.

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