

## Drought Analysis over northern Thailand based on SPI

In this research, the Kalman filter method was applied for correcting precipitations simulated by a high resolution regional climate model, NHRCM during the period of 1980-1999. The improved average monthly precipitations were close to the station observations. To reduce systematic error, the Kalman filter method was also applied to simulated monthly precipitations during the future period of 2080-2099. They were analyzed to evaluate drought condition during March-April (out rainy season) and June-July (in rainy season) by using Standardized Precipitation Index, SPI. Preliminary Analysis shows that drought during both periods slightly mitigate. Furthermore, the drought over upper northern Thailand was found in the wettest month during the southwest monsoon period, September. The other months during the monsoon active are wetter than the period of 1980-1999.

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