Yang, W.-T., S.-M. Fu, J.-H. Sun, F. Zheng, J. Wei, and Z. Ma, 2021: Comparative Evaluation of the Performances of TRMM-3B42 and CMORPH Precipitation Estimates over Thailand. *J. Meteor. Soc. Japan*, **99**, 1525-1546.
https://doi.org/10.2151/jmsj.2021-074.

Plain Language Summary: Thailand plays an important role in ensuring the global food security. To understand precipitation features over Thailand is of great importance to agriculture in Thailand. This study conducted a detailed comparative evaluation between the TRMM-3B42v7 and CMORPH precipitation products, and showed the relative performances quantitatively. We found that, overall, the TRMM-3B42v7 displayed a better performance than that of CMORPH.

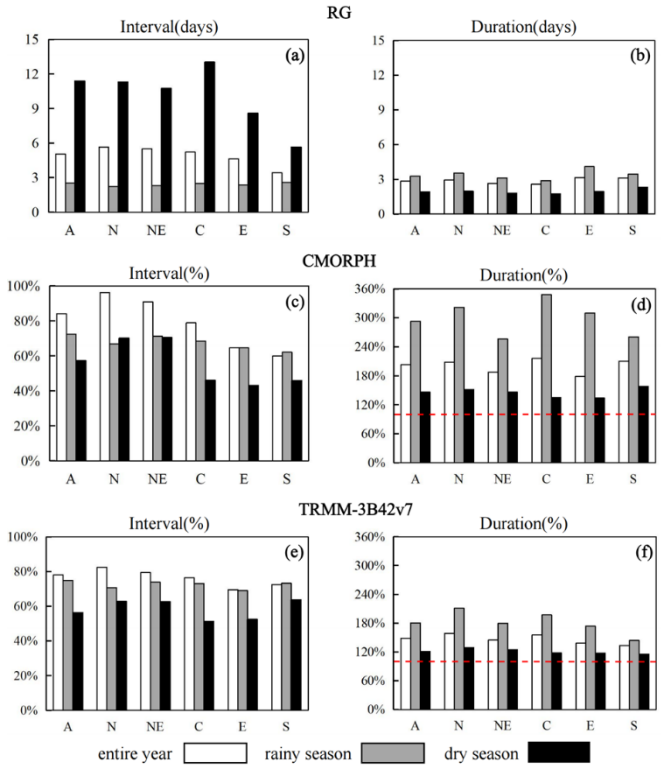

Figure 1. (a) RG-based mean precipitation interval (days) and (b) duration (days) for precipitation events in the various regions during different periods. (c) and (d) Ratio of the mean interval and duration for CMORPH to those for RG, respectively (%). (e) and (f) Ratio of the mean interval and duration for TRMM-3B42v7 to those for RG, respectively (%). The red dotted horizontal line is at 100%. RG=rain gauge, A=all regions, N=North Thailand, NE=Northeast Thailand, C=Central Thailand, E=East Thailand, S=South Thailand.

- Based on a total of 35 factors, TRMM-3B42v7 and CMORPH precipitation products were compared quantitatively for the entire Thailand and its five regions.
- The TRMM-3B42v7 displayed an oveall better performance than that of CMORPH.
- In terms of daily precipitation intensity and monthly variation of precipitation, Central Thailand was the only region where CMORPH displayed a similar performance to TRMM-3B42v7.