Response to Anonymous Referee #2

Authors are grateful to the anonymous referee #2 for the useful suggestions. Modifications and improvements are incorporated in the revised version of the paper as mentioned below for each of the comments.

Comment: This paper presents a simple correlation study between rainfall, temperature and explaining variables such as sea surface temperature anomalies. The data used for the study seems to be of good quality. The relationship between the possible variables is judged using the correlation coefficients. The great number of considered cases makes it very likely to obtain a large number of significant correlation - even by chance. Further even a significant correlation does not imply a cause consequence relationship. Thus this kind of blind data analysis does not support the consequences of the paper.

Response: The SST was evident to influence local hydroclimate via the atmospheric circulations based on land-sea temperature gradient. Many papers have developed such relationships between temperature and rainfall which clearly indicates cause-effect relationships (Mason and Goddard, 2001; Smith and O'Brien, 2001; Saravanan and Chang, 2000; Singhrattna et al., 2005). Hence, in this paper, the relationships between rainfall and large-scale SST anomalous indices were developed by a standard statistical method – i.e. correlation coefficient.

Mason, S. J., and Goddard, L.: Probabilistic precipitation anomalies associated with ENSO, B. Am. Meteorol. Soc., 82, 619-638, 2001.

Saravanan, R., and Chang, P.: Interaction between tropical Atlantic variability and El Niño-Southern Oscillation, J. Climate, 13, 2177-2194, 2000.

Singhrattna, N., Rajagopalan, B., Kumar, K. K., and Clark, M.: Interannual and interdecadal variability of Thailand summer monsoon season, J. Climate, 18, 1697-1708, 2005.

Smith, S. R., and O'Brien, J. J.: Regional snowfall distributions associated with ENSO: Implications for seasonal forecasting, B. Am. Meteorol. Soc., 82, 1179-1191, 2001.

Revision: The work is strengthened by including the above literatures in the Introduction section of the revised manuscript. The literature clearly shows the influences of the SST on the monsoon rainfall via the atmospheric circulations. The relevant parts of the Introduction section now reads as "…The anomalies of the climate variables known as atmospheric indices, e.g. the anomalous sea surface temperature (SST) index or El Niño-Southern Oscillation (ENSO) can strengthen or weaken a monsoon (Mason and Goddard, 2001;…".

Comment: The grouping of the stations according to precipitation amount is not reasonable. Either a classification based on rainfall generating mechanisms or a geographical partition of the observation locations could have lead to more insight to the problem studied. In summary the paper presents a simple and brute force analysis of data leading to conclusions which are not really supported by the observations.

Response: The preliminary investigation on elevation of the selected stations indicates that the stations in HRZ are at higher elevation compared to NRZ and LRZ. Authors are working on classification the stations based on rainfall generating mechanisms or geography.

Revision: The rainfall stations have been classified based on the elevation of stations, a geographical feature. The stations in HRZ are higher elevation than NRZ and LRZ and the stations in NRZ are at higher elevation compared to those in LRZ. The methodology in the revised manuscript is modified with respect to selection of the predictors. It is based on the actual correlations between rainfall and five SST indices for 12 lead periods. Table 2 in the revised manuscript presents the summary of identified predictors and corresponding lead periods with actual correlations.