

## Trends and interannual variations of rainfall over the Indonesian maritime continent

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Trend and interannual variations of rainfall amount and rainfall extremes over Sulawesi and the Maluku Islands in the eastern Indonesian maritime continent (IMC) were investigated using surface daily rainfall data at 23 stations during 1972–2012. Tendencies towards wetter conditions seen in the rainfall extremes are predominant features in the eastern IMC in accordance with increasing trend of the relative proportion of total rainfall amount from heavy rainfall. The interannual variations of the rainfall extremes were closely related to ENSO phases. The wetter (drier) condition is associated with La Niña (El Niño) event, especially for wet days at more than 90% of the stations. Heavy rainfall events increase during La Niña years at more than 60% of the stations. On the other hand, Villafuerte and Matsumoto (2015) described that a decreasing trends of annual rainfall amount and heavy rainfall were dominant in most parts of the IMC, except the eastern part using a gauge-based gridded rainfall dataset during 1951–2007. Decreasing trends of rainfall amount were also reported over Java Island in the western IMC that might be related to the weakening of the Asian winter monsoon (e.g., Aldrian and Djamil, 2008; Hamada et al. 2012). At the meeting, we will discuss temporal and regional differences of the trends and influence of ENSO over the whole maritime continent by analyzing the surface rainfall datasets for the older period (oldest record started from the middle of 19th Century) and the entire region of the IMC.

Keywords: Maritime continent, Rainfall variability , Trends