

# **Causes of the wettest place in the southern slope of the Meghalaya Plateau, Northeast India**

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The southern slope of the Meghalaya Plateau is the first terrain that the warm moist flow from the Bay of Bengal encounters. This area includes the places which average annual rainfalls are more than 10,000 mm. The rainfall is characterized by nocturnal rainfalls in the diurnal cycle and quasi-biweekly oscillation in the intra-seasonal time scale. The nocturnal jet over the Bengal plain and a barrier jet of the Arakan mountains are considered to enhance nocturnal rainfall. The enhanced moisture convergence during the northward shift of the monsoon trough results in the active rainfall spells. The frequent and longer active periods in a monsoon season are one of causes of the wettest place. Further investigation is necessary for where is the heaviest rainfall place, and what is the typical precipitation systems which cause heavy rainfall.