

## **Environment Field during the Pre-Monsoon Period over Bangladesh and the Northeastern Part of Indian Subcontinent.**

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We reveal the environmental field during the pre-monsoon period over Bangladesh and the north-eastern part of Indian subcontinent. Intermittent rainfall events were found during pre-monsoon period. The passage of trough on 4000-5000 m and inflow of warm and moisture air from Bay of Bengal was suggested from these aspects; high potential temperature on 1000 m during active convection, increase of moisture quantity and relative humidity, prevailing of southwesterly, and decrease of potential temperature on 4000-5000 m by intensive observation of upper balloon on Dhaka in 2007. According to the OLR spatial pattern in each year, the northern India has no rainfall during pre-monsoon, even though in same latitude of Bangladesh. On the other hand, the northern Myanmar, and the southern China as same latitude with Bangladesh have also rainfall activity during pre-monsoon. It is suggested that the active phase of convection during pre-monsoon is the synoptic phenomena. A large lower troposphere integrated moisture flux flows into Bangladesh from the northern India during active phase of convection. In contrast, this moisture flux is weak during break phase of convection. It is interesting that the northern India where has no pre-monsoon rainfall, is located the large moisture flux. The existence of upper trough is confirmed around Bangladesh during active phase of convection from composite analysis of wind fields on 500 hPa and 300 hPa.