Most of the territory of Bangladesh expands over the complex delta plain formed by the Ganges, Brahmaputra, and Meghna rivers. Since about half of the territory was below an altitude of 7 m. a.s.l., flood disaster occurs in every year. One of the causes of flood disaster is heavy rainfall events over the Bangladesh and/or in the upper reaches of the Ganges, Brahmaputra. In recent years, long-term changes in precipitation over the India and China were examined. However, statistical characteristics of heavy rainfall and its long-term changes were not well investigated over the Bangladesh. In this study, we examined the long-term changes in precipitation extremes over the Bangladesh using the daily rainfall data records provided by the Bangladesh Meteorological Department. We selected the daily rainfall records of 18 stations with data record length over 30 years. Homogeneity tests proposed by Wijngaard et al were applied to the stations records. Finally, the daily rainfall records of 10 stations were remained. Precipitation extreme indices proposed by WMO/CLIVAR ETCCDMI were calculated for these 10 stations. Long-term trends in precipitation extreme indices were obtained by the OLS, and statistical significance was evaluated by the Mann-Kendall statistics.

Main results are summarized as follows: 1) annual rainfall is increased (decreased) at 7 (3) stations. 2) Number of wet days (RR>1 mm/day) is increased at all stations. 3) Heavy rainfall indices are decreased at 5 stations without statistical significance. 4) Common regional characteristics in the extreme indices were hardly distinguished in the Bangladesh.