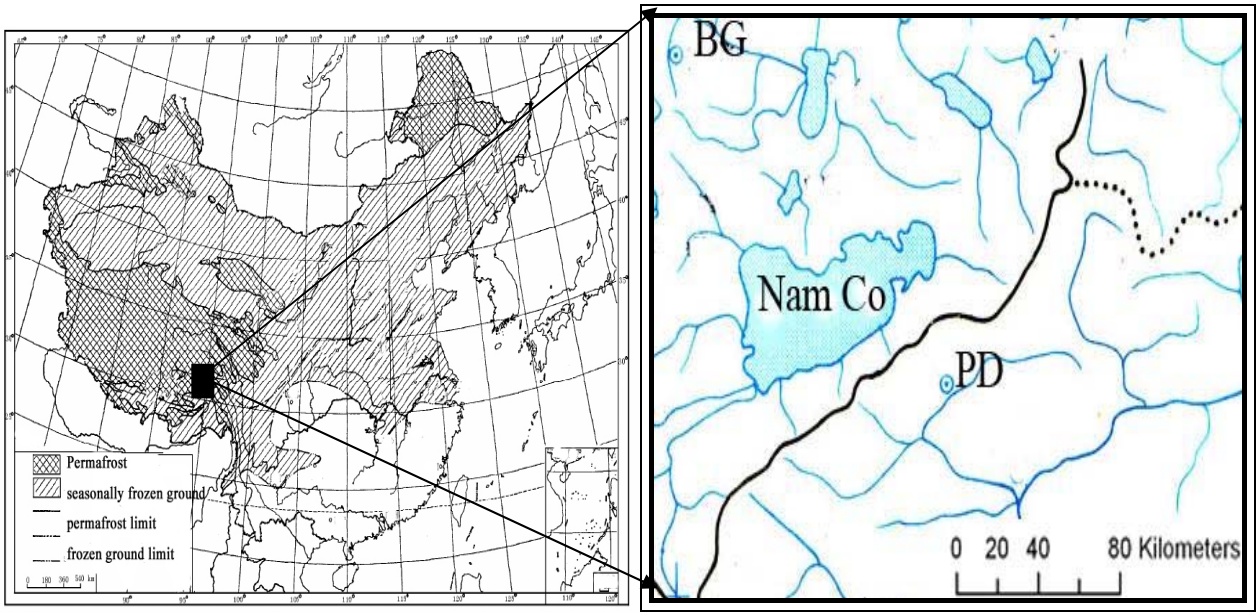

Figure 1 Permafrost distribution and the surrounding meteorological and gauging station location of Lake Nam Co on the Tibetan Plateau(meteorological station is at Bange(BG) county, and a gauge station at Pangdo (PD) of the upper Lhasa River on right graph).

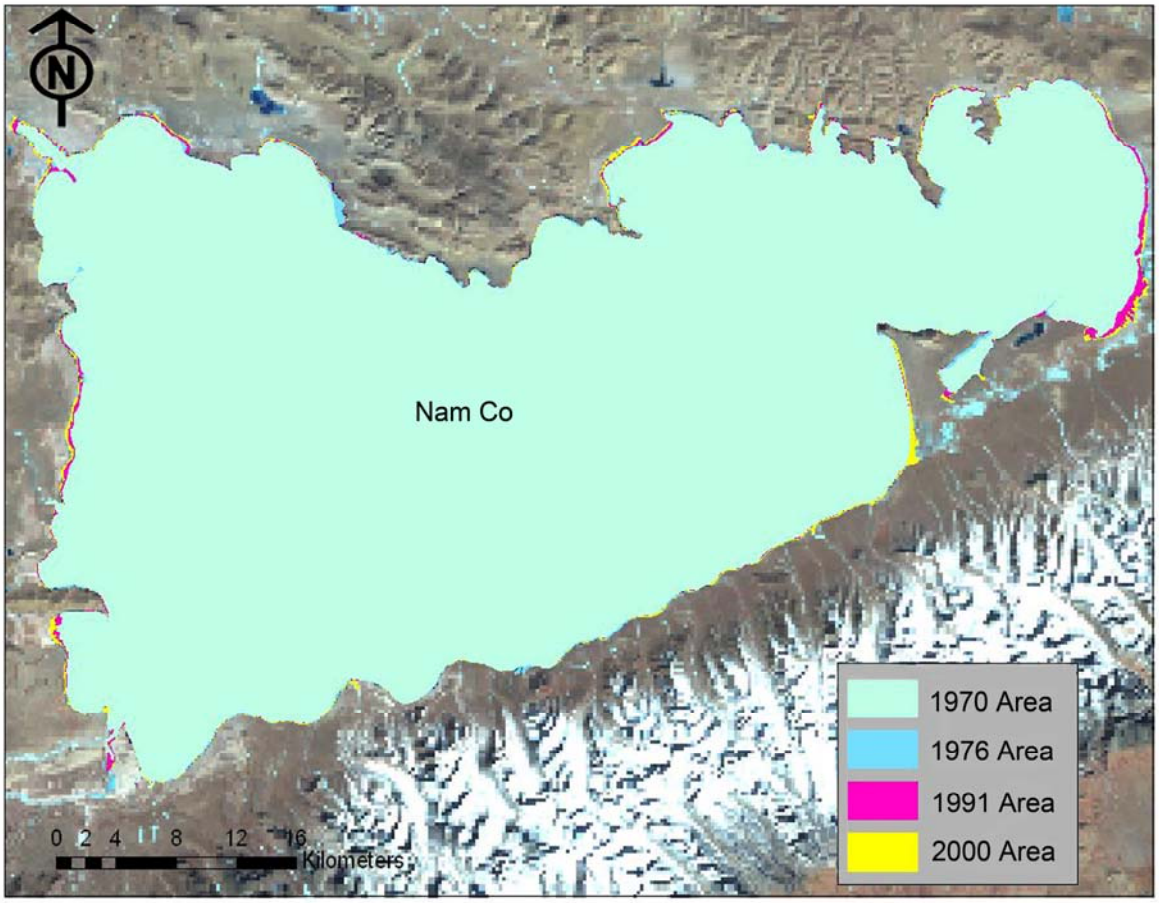

Figure 2 The lake area changes of Nam Co during 1970 to 2000

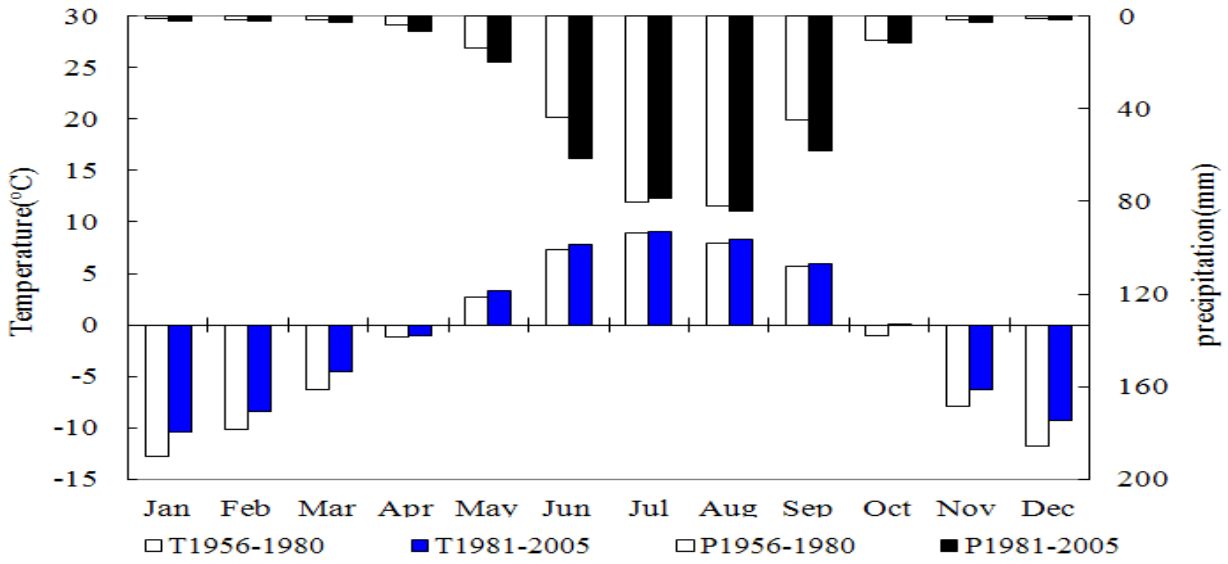

Figure 3 Bar graphs comparing the monthly variations of air temperature (T-) and precipitation (P-) at BG during the 1956-1980 and 19981-2005

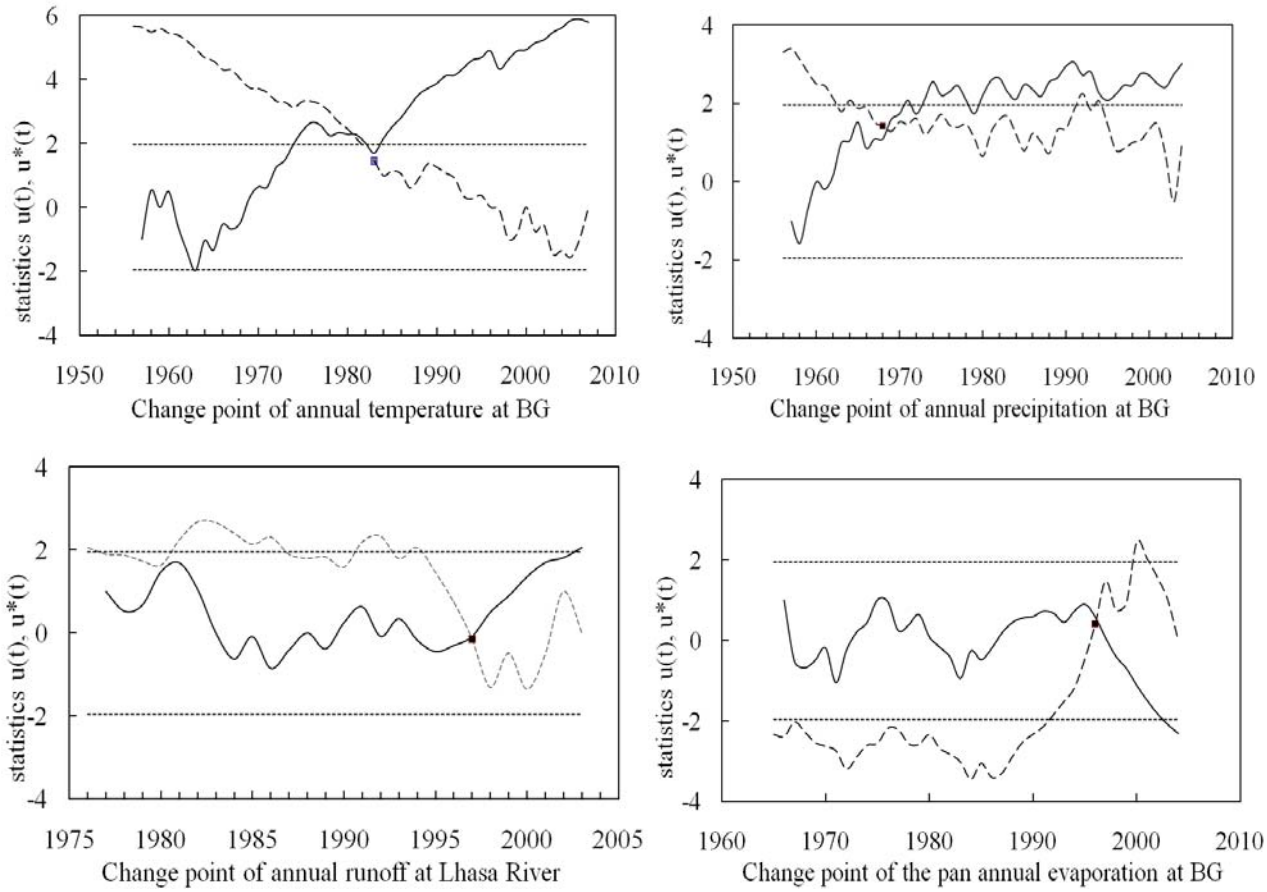

Figure 4 Change points established using the Man-Kendall test for selected annual air temperature and precipitation (top-left and right graph), annual evaporation and runoff (lower-left and right graph) at BG for 1956-2005, and runoff data for 1976-2005 with Forward_u marked by a solid line and Backward_u by a dashed line, the dotted lines at 1.96 and -1.96 are the thresholds at significance level of 95%.

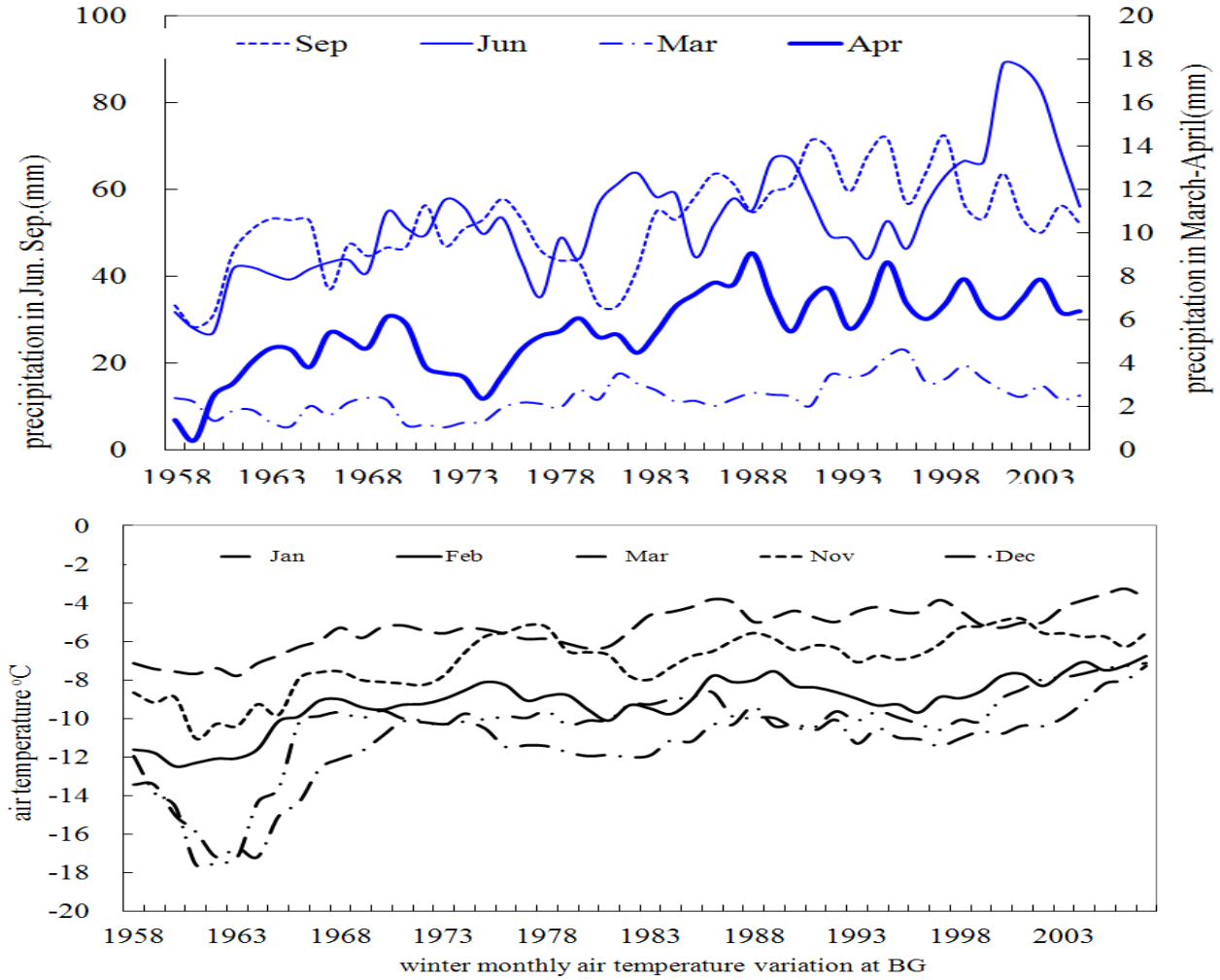

Figure 5 Running mean (5 years) of monthly air temperature and precipitation variation at BG during 1956 to 2007

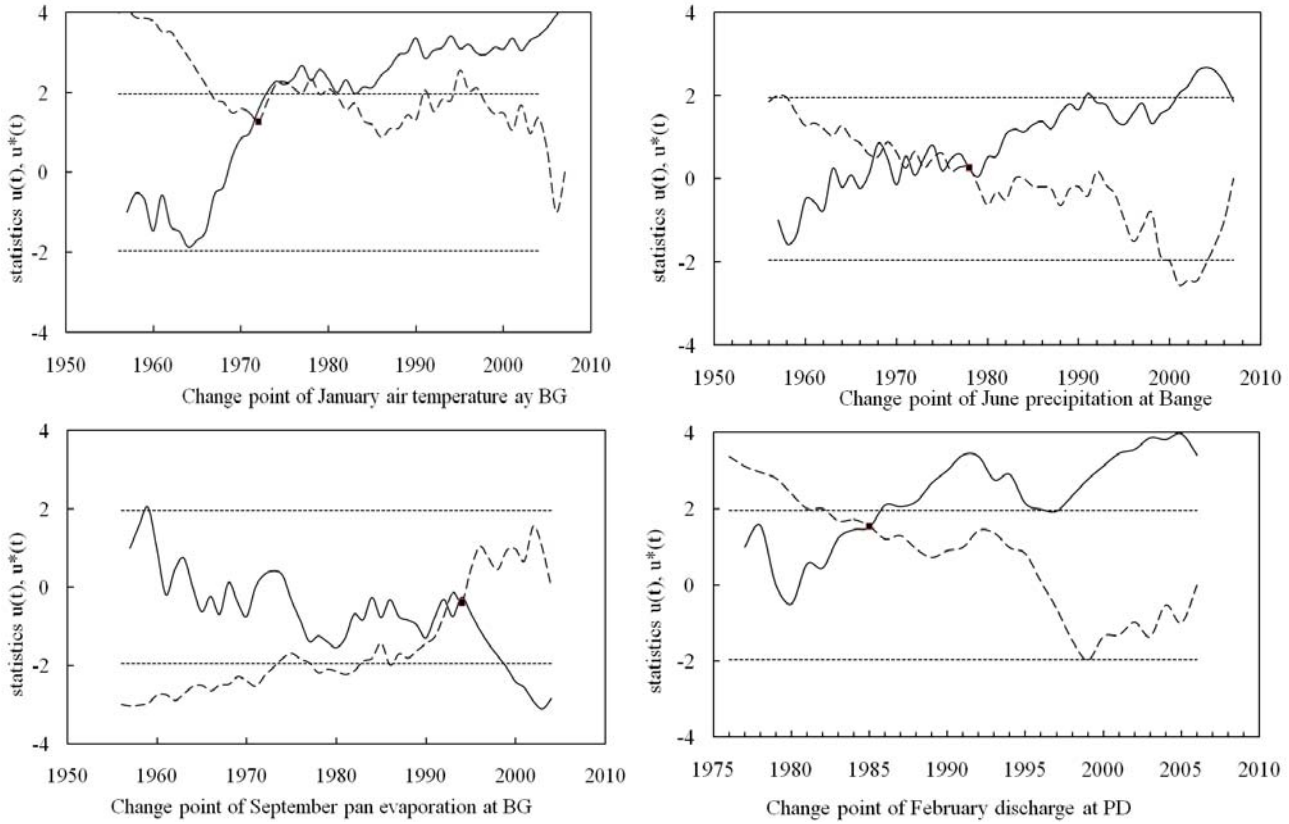

Figure 6 Change points established using the Man-Kendall test for selected January temperature (top-left graph) and June precipitation (top-right graph), September evaporation (lower-left graph) and February discharge (lower - right graph) at BG for 1956-2005, and runoff data from Lhasa River for 1976-2005, with Forward_u marked by a solid line and Backward_u by a dashed line, the dotted lines at 1.96 and -1.96 are the thresholds at significance level of 95%.

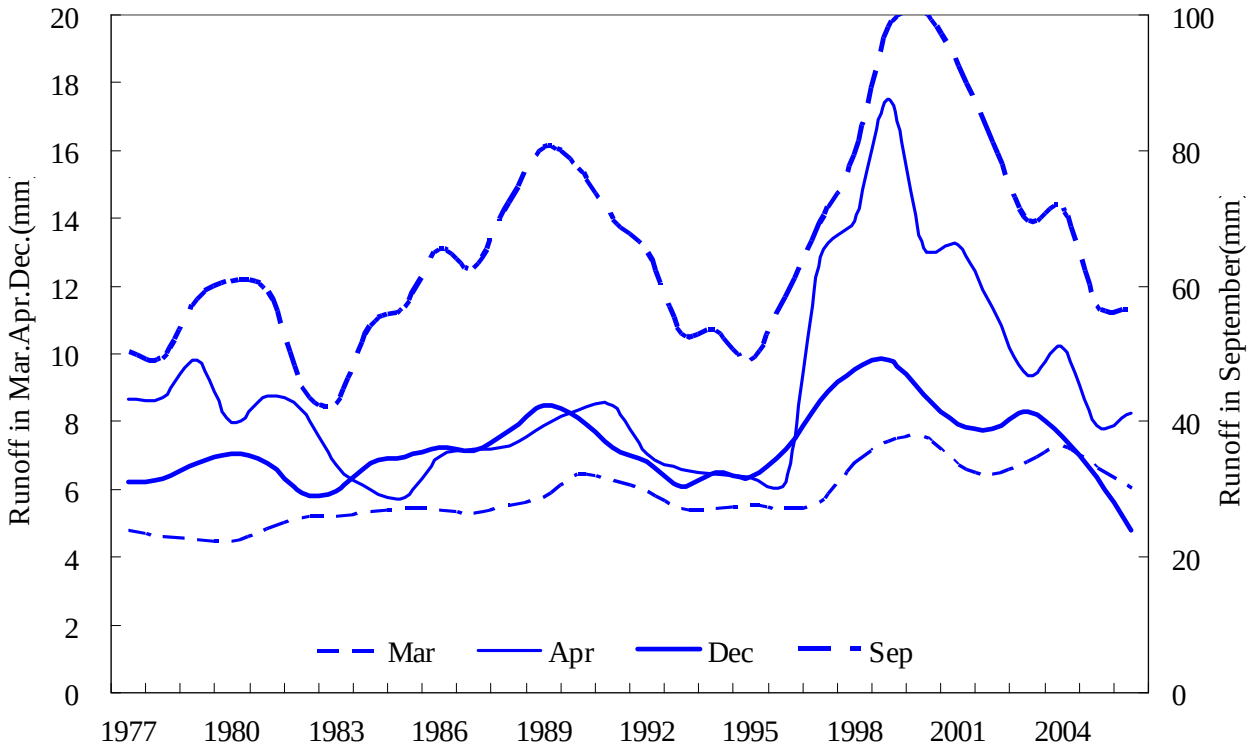

Figure 7 Upward curves(running mean in 3 years) of monthly runoff in March,April, September and December at gauge station PD

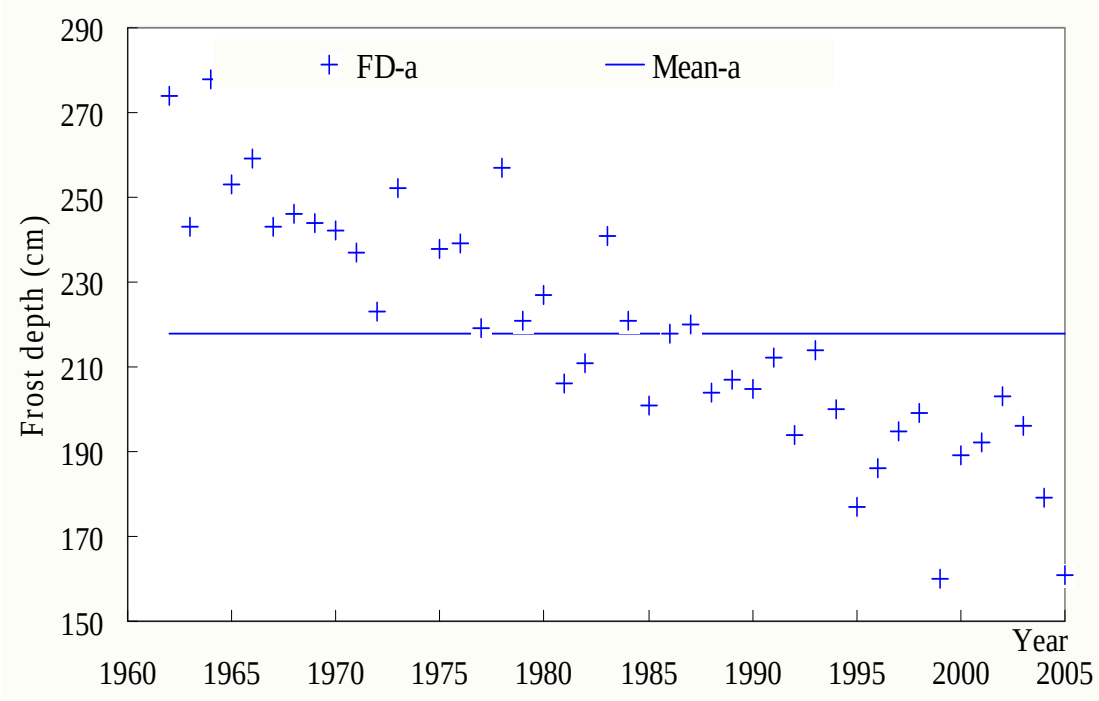

Figure 8 Change in depth of the seasonal frost in the studied area at BG, the fine line is the annual average and + means the depth of measured seasonal frozen ground.