



## **Quality control and homogenization of Turkish precipitation and streamflow dataset**

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This work aims the quality control of monthly total precipitation of 262 stations and monthly average streamflow of 110 stations with variable length of records (from 10 to 92 years) in Turkey. A procedure introduced by Hanssen-Bauer and Forland which is based on the Standard Normal Homogeneity Test is applied to the time series for detection and adjustment of inhomogeneities after elimination of outliers by trimming extreme values. After applying the procedure to the precipitation time series, 55% of the series were found to be homogeneous and inhomogeneities were detected in 10% of the series. Due to inadequate number of references, 35% of the time series could not be tested. 60% of the streamflow series were found to be homogenous and 20% of the series were found to be inhomogeneous. The test could not be applied to the 20% of the streamflow series. Stations with short time series were eliminated from being reference stations because of their high but misleading correlation values with the test stations. It has been concluded that reducing the number of reference stations due to short lengths of reference time series substantially decreases the number of testable time series.