Validation of Disharge Data for Detecting Deviation Data Case Study: Upper Citarum Watershed

Desi Windatiningsih, author

Abstrak

ABSTRAK
The changes in hydrological phenomena that occur due to natural change and human activity that causes the data conditions in the field are not in accordance with ideal conditions. This study was conducted to analyze homogeneity and trend validation test methods, to detect data deviations and to provide information about data quality conditions. This is useful to ensure that the hydrological data to be published is in accordance with the criteria. This validity test includes a
homogeneity test, a trend test, and the detection of data deviations. The data validation testing was applied in Upper
Citarum Watershed on 4 selected gauging stations, namely Citarum-Nanjung, Cigulung-Maribaya, CikapundungMaribaya and Cikapundung-Gandok. Pettitt and T methods were used for homogeneity test while Mann-Kendall and Spearman for trend test with a significance level of 5%. The results indicate that the homogeneity test using Pettitt method is more suitable since its discharge population data is not normally distributed. While for trend test, both MannKendall and Spearman methods give relatively the same significance, as both tests are non-parametric statistical methods. The strength of these two tests depends on significance level, sample size, as well as type of distribution. The test results show that homogeneity and trend of discharge data for four gauging stations in Upper Citarum Watershed are
not uniform.