

Evaluation of Nonstationary Behavior of Extreme Precipitation in Korea

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The regional impact of climate change causes the spatial and temporal variation of means and extremes of precipitation in Korea. It brings about reconsideration of the traditional assumption of the stationarity of precipitation data in hydrologic frequency analysis. In this study, the spatial and temporal variability of precipitation in Korea were analyzed to evaluate the nonstationary behavior of extreme precipitation. Results show that the nonstationary behavior of extreme precipitation has regional characteristics in not only quantity but also frequency. Therefore an appropriate alternative hydrologic frequency analysis method, which can consider the nonstationary characteristics, is necessary to improve planning and operation of water resources with the accurate precipitation projection.