



## **Precipitation and Temperature Trend Analyses in Samsun<sup>#</sup>**

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**Abstract:** Turkey is one of the sensitive regions to climate variation particularly to precipitation changes in the World. In this study, trends in precipitation and temperature at annual, seasonal and monthly time scales for the periods of 1931-2006 and 1974-2006 were examined for the Samsun which is located in the Black sea region of Turkey. Non-parametric tests (such as Mann-Kendall and Sen's Slope), linear regression, cumulative deviation curve techniques were used to determine climatic trends. The results showed that there is no negative or positive statistically significant trend in the study area, despite of slight precipitation decrease in winter for the period of 1931-2006. In contrast, 1974-2006 seasons represent slight precipitation increase (which are not statistically significant) annually and seasonally. Temperature data showed slight increase annually even though results are not statistically significant during the period of 1931-2006. On the other hand, results of temperature trend analyses represent statistically significant trend for the period of 1974-2006. The temperature data for summer months represent statistically significant trends during the last 32 years.

**Key words:** *Climate Variation, Precipitation, Mann-Kendall, Trend, Samsun*

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