

**Kazmierczak, B., Kotowski, A., Wdowikowski, M. Trend Analysis of Annual and Seasonal Precipitation Amounts in the Upper Odra Catchment. *Ochrona Srodowiska* 2014, Vol. 36, No. 3, pp. 49–54.**

**Abstract:** Time series of the archival pluviographic data from 4 meteorological stations of the Institute of Meteorology and Water Management (IMGW, located at altitudes of 122 to 356 m above sea level) were analyzed. The analysis covered the period of last 60 years (1954–2013) including both annual and seasonal (May–October) rainfall data. In order to assess trends in precipitation amount, both linear regression and Mann-Kendall test were applied to statistical studies. For all the analyzed measurement stations a decrease in annual precipitation amount in the period 1954–2013 was demonstrated, for Legnica and Opole at a significance level above 75%. Moreover, a decrease in the seasonal precipitation amount was noticed, however at a significance level of less than 75%. Further research is needed in order to confirm the expected changes in rainfall amount and intensity in the future.

**Keywords:** Precipitation amount, pluviogram, meteorological data, statistical analysis.