
ASSESSMENT OF CHANGES OF LONG-TERM FLOW CHARACTERISTICS FOR THE PERIOD 2001–2015 OVER THE REFERENCE PERIOD 1961–2000 IN SELECTED SLOVAK GAUGING STATIONS

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The period 2000 to 2015 is a period in which we have observed significant differences and extremes in the hydrological regime of Slovak flows. The Slovak Hydrometeorological Institute, in the framework of its tasks, processes a comprehensive assessment of hydrological characteristics focused on drought assessment. This article focuses on one part of the overall assessment, namely on the assessment of changes of long-term flow characteristics (annual and monthly flows) for the period 2001–2015 over the reference period 1961–2000. The aim is to review the period following the current reference period and its possible influence on the hydrological characteristics for the period 1961–2015. A total of 216 stations were selected, which were categorized and evaluated based on the length of the time series and the degree of influence by water use.

The results of the analyses showed that in the period 2001–2015 in Slovakia the decrease of flow rates was identified, but despite this fact, trend analyses of these hydrological characteristics in most cases do not confirm significant decreasing trends for the whole period 1961–2015. Identified changes in the hydrological regime Slovak flows over the past 15 years are not yet so significant that the reference period should be changed, but there are some signs of changes in the outflow distribution within the year.