



Precipitation deficit periods in Slovakia with emphasis on the Danubian lowland region with in the 1901-2007 period

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Geographic position of Slovakia creates preconditions for existence of the temporary precipitation deficit periods resulting in drought mainly during transition seasons (spring and autumn) as well as summer. Not only precipitation deficit but also precipitation surplus represents a trouble that cause increasingly more significant and widespread damages. In the term of precipitation deficit period occurrence in the Danubian lowland region in Slovakia represent potentially the most endangered areas by drought. However our experience from climatological practice indicates increasing risk of the precipitation deficit incidence even in other region of Slovakia. The ascending extent of regional of precipitation deficit period is also very significant.

The long-term time series of daily precipitation totals available from the end of 19th century, respectively from the beginning of the 20th century to present period have made us possible to analyze the incidence of the precipitation deficit period in Slovakia. Selected meteorological stations from which the daily precipitation totals data sets are available within the above mentioned period are situated in different natural and climatological conditions in Slovakia.

In our previous statistical and regional analyses of precipitation deficit periods within the 1901-2006 period we have revealed the noticeable changes not only in occur-

rence frequency but also in annual regime of drought periods occurrence in the most southernmost regions within the Danubian lowland in Slovakia. The Danubian lowland represents from the economic viewpoint the most eminent and interesting region in Slovakia.

In the paper we deal with the statistical trend and frequency analysis as well as with the annual regime and regional extent analysis of the precipitation deficit periods incidence at selected meteorological stations in Slovakia, mainly in the Danubian lowland region within the 1901-2007 period. Recently climate in the Danubian lowland begins to show some features typical for the Mediterranean region with its warmer spells and aridization trends.