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FUTURE TRENDS FOR PRECIPITATION REGIME IN UKRAINE DURING THE SUMMER PERIOD OF 2020-2050

Objectives. The projected spatiotemporal distribution of precipitation in different regions of Ukraine under the climate scenario RCP8.5 for the period of 2020-2050 was defined.

Methods. The data of regional climate modeling of the CORDEX project have been used for construction of time series and detection of trends in projected precipitation. Future trends of adverse meteorological phenomena associated with precipitation are estimated using climate extreme indices.

Results. During the studied period insignificant changes in summer precipitation in different regions of Ukraine are expected, with the largest sum of precipitation mainly in the mid-period and its decreasing over most areas till 2050. At the same time, a gradual increase in the intensity of precipitation is predicted under a reduction in their duration, which will lead to prolonged consequence dry periods.

Scientific novelty. For the first time a comprehensive description of the precipitation regime has been obtained due to a combination of different parameters, which allows to simply estimating its possible fluctuations in Ukraine under the most adverse climate scenario.

Practical significance. Precipitation is the constituent element of the hydrologic cycle of any territory, defining its climatic features and capabilities of human activities. The resulting estimates of possible regional changes in precipitation can be used for long-term planning of the activities in different sectors of the economy.

Key words: climate scenario, precipitation regime, climate extreme index.

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