

Comparison of drought damage risk/intensity and the use of damage prevention tools in the Lower Tisza catchments

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"One of the consequences of global changes is that the frequency and severity of droughts has increased, resulting in the higher magnitude of damages caused at the national level. The range of tools for preventing and mitigating water damage risks is extensive (especially for surplus water) in terms of flood risk management, which has been applied for decades or even centuries, however, the range of water management tools for actively managing drought damage is much more limited. One obvious reason for this is the increase in the number of water scarcity-related phenomena in the last three decades in the domestic context, which has led to an increasing focus on balancing anomalies that result from changing hydrological system dynamics. The development of existing and future technical (water management, agro-technical, nature conservation) and legal frameworks is increasingly being emphasised, leading to a rapid expansion of the set of tools, the optimal use of which can significantly help mitigation.

According to the principle of integrated water management, drought management should be effective in the whole river basin using the available tools, but at present there is no complex framework in national practice other than the retention of collected surface water in reservoirs and canal networks and the use of irrigation. One reason for this may be that a comprehensive strategy to address water scarcity has not been adopted and its development was interrupted in the early 2010s.

The presentation shows how the spatial relationship between drought and irrigation has changed in the Lower Tisza catchments over the last 10 years. The spatial specificities of the relationship are discussed and suggestions for improving the efficiency are made.