Municipal Resilience to Natural Disasters in Slovakia

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Abstract

The rising frequency and intensity of natural disasters linked to climate change have prompted municipalities worldwide to focus on building resilience. Our paper examines the resilience of Slovak municipalities in addressing the impacts of extreme weather events, including floods, droughts, heat waves, and other natural disasters. A survey conducted among 681 municipalities, representing 23.27% of all Slovak municipalities, provides insights into current practices and challenges needs at the local government level. Data were collected in 2024 by the Association of Towns and Communities of Slovakia (ZMOS). The analysis highlights key vulnerabilities, evaluates the practise of existing risk management measures, and identifies critical gaps. Key findings reveal that the most frequently reported risks are storms (78.41%), floods (67.69%), and heat waves (61.53%). While municipalities have taken steps to improve resilience, significant barriers persist, including financial constraints, insufficient personnel, and limited technical resources. The study also examines differences in risk strategies across municipalities of varying using quantitative methods. The results emphasize the urgent need to strengthen local capacities for coping with extreme weather events. This research provides actionable insights for policymakers and stakeholders to develop comprehensive risk management frameworks and support municipalities in adapting to the growing challenges posed by climate change.

Keywords: vulnerability, municipality, extreme weather, risk management