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The role of environmental extremes on urbanized areas of Western Hungary

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The impacts of climate change don't appear only on natural areas but urbanized areas are also well affected. The unpredictable and extreme weather events

such as the alternation of drought periods and heavy, stormy precipitation events was typical in the last decades. Three settlements were investigated to detect how the extreme weather events influenced the water, sediment, and soil conditions on anthropogenic affected areas. The studied areas are mostly surrounded by mountains and forestlands and crossed by a river or creek; therefore, close-to-nature ideas, climate strategies, and sustainable urban management are needed to prepare against changing conditions. A heavy storm may increase the leaching of contaminants into soil and watercourses. To support the adaptation, city-wide investigations began in the last decade to make further suggestions for future direction based on measurements and experience. Altogether 672 soil samples and 30 sediment samples were analyzed to give a basis for climate strategy and settlement development concept in the future.

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