

**UNITED NATIONS GROUP OF EXPERTS ON GEOGRAPHICAL NAMES
Romano-Hellenic Division**

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*How toponymy can contribute to reach the Sustainable Development Goals (SDGs)***

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Luisa Spagnoli's Abstract:

Toponymy as Historical Evidence of Hydrogeological Risk in Basilicata. An Integrated Approach Combining the Geo-historical Dimension and Satellite Monitoring

This paper aims to explore the potential of toponymy as a tool for interpreting environmental dynamics and fostering sustainability education, focusing on the hydrographic context of the Basento and Bradano rivers in Basilicata. In a territory historically marked by geomorphological fragility, place names preserve a "fossil" memory of the conflicting and adaptive relationship between humans and the environment, offering indispensable interpretive keys for future protection and territorial planning.

The study is situated at the operational intersection of two interconnected, ongoing research projects with a transdisciplinary scope: one which, through the use of radar satellite data and interferometric coverage (InSAR), monitors ground and infrastructure deformation, providing a diachronic overview of instabilities in the municipalities of the investigated area; the other which investigates the correlations between environmental fragility, depopulation, and geo-social fractures, aiming at the re-signification of at-risk places through participatory processes and the recovery of oral memory.

The proposed methodological approach is geo-historical and involves the systematic analysis of toponyms derived from historical cartography and textual sources (expert reports, memoranda, archival technical literature), with particular attention to "geotoponyms" indicative of landslide or hydraulic phenomena. This intangible heritage will be integrated into a multilayer WebGIS environment overlapping two information layers: on one hand, the current and historical deformation scenario; on the other, the geolocalization of historical toponyms associated with hydrogeological instability.

The ultimate aim is not only risk mitigation, but also fostering a new 'dwelling' awareness: recognizing in the place name a "warning" and a lesson from the past to build more resilient and sustainable human-environment relationships.