



Local community perception and awareness of flash floods vulnerability at a small catchment scale in the Bend Subcarpathians, Romania

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The study aims to identify local communities perception and awareness in terms of hydro-meteorological extreme events in order to better understand the local context of vulnerability and communities resilience to flash floods as well as the mitigation measures undertaken by local authorities to cope with these phenomena.

The study-area is located in the Bend Subcarpathians, Romania, a region well known for high tectonic mobility and dynamics of hydro-geomorphic processes (e.g. floods and flash floods, landslides). The study was conducted in the framework of VULMIN project (PN-II-PT-PCCA-2011-3.1-1587), funded by the Ministry of National Education for the period 2012-2016 (<http://www.igar-vulmin.ro>).

The previous analyses conducted in the project showed a high exposure to flash floods of small river catchments (generally below 200 km²) located in the study-area (Teleajen-Buzau hydrographic area). Some of the most recent events (2005, 2008, 2010 and 2014) had a high impact on local communities in terms of important losses to their assets and psychological effects.

Thus, in the summer 2014, a questionnaire-based survey was addressed to over 50 households (from 5 villages), significantly affected by flash floods and structured interviews were held with local authorities (local municipalities, county Civil Protection Inspectorates).

The questionnaire was focused on the perception of human vulnerability to environmental change and extreme events, mainly floods, aiming to outline the personal experience, post-disaster rehabilitation, awareness, worrying and opinion on the measures aimed to prevent and mitigate the effects of flooding.

The flash flood events are of major concern for local community, due to their high return period (1-5 years) and magnitude in the recent years. This influences also the population response and adaptive capacity to these events, which is limited to individual measures (e.g. buildings consolidations and relocations). The survey showed a discrepancy between the people's perception on the local authorities reaction during and post-event and the local authorities' perception on their response and preparedness measures.

It was noticed a high interest of local authorities to access scientific data (flash flood hazard and risk maps, climate change projections) to support the development of adequate mitigation measures. However, the lack of funds is still limiting their implementation as well as the development of a long-term strategy.