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A Landslide Event Support Analysis Framework (LESAF) for damage assessment: some examples from Calabria (Southern Italy)

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A Support Analysis Framework (SAF) for the assessment of damage caused by landslide phenomena has been recently proposed and tested on movements occurred in Calabria (Southern Italy). The damage data, available in old or recent documents, were processed using SAF in order to obtain the indices describing direct, indirect, and intangible damage caused by a mass movement. In practice, a simple spreadsheet, in which some calculations have been introduced, allowed us to synthesise the impact of a certain phenomenon on people and inhabited areas. In the present paper we try to extend the tested approach to the whole of landslides simultaneously triggered (landslide event) during rainfall event or earthquake. Particularly, we selected some rainfall-triggered landslide events occurred in Calabria in order to arrange a LESAF (Landslide Event Support Analysis Framework).
LESAF, strengthened with testing experiences carried out on different anthropogenic situations, could represent a tool for vulnerability assessment in landslide prone areas. Besides, it is substantially independent from both physical and geometrical landslide characteristics, because it was built based essentially on the anthropogenic elements in the study area. For this reason it can also be used as a first-approach decision-support tool to assess damage (or vulnerability) tied to other types of natural events, such as floods in small river basins.