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Landslide damage assessment using the Support Analysis Framework (SAF): the 2009 landsliding event in Calabria (Italy)

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Abstract. In this paper, a simplified methodological approach is used to assess damage indices related to landslide phenomena that occurred in Calabria (Italy) between November 2008 and January 2009. This approach, which was designed for and applied to single landslides, uses the Support Analysis Framework (SAF), a procedure containing the elements that can be damaged by a landslide grouped in categories. In this paper, we test wide-ranging use of the SAF on a number of landslides, assessing landslide damage on a municipal scale to get a final estimate of the amount of damage caused by all of the landslides that occurred in a selected municipality.

Data regarding the damage caused by landslides were gathered from the press. Daily newspapers were systematically collected and elaborated to assess direct, indirect and intangible damage caused during the abovementioned period by a rainfall-triggered *landsliding event*. In the paper, regional- and provincial-scale results are described, and the methodological approach is briefly described.

The application of the proposed methodological approach to the 2009 landsliding event shows that the results can be used to summarise landslide damage from a complex event in order to better plan an intervention strategy at a regional, provincial or municipal scale.

The availability of newspaper data during the event and the speed of the proposed approach allow for rapid location of the damaged sectors during the event, which will continuously upgrade the regional damage framework. This can all be done almost in "real time".

For regional agencies, this framework can be a starting point to both manage the emergency and to acquire and interpret data giving a more detailed damage distribution so that a response can be organised. Moreover, based on the damage assessment, a characterisation of the landsliding event can also be carried out and used to describe the damage scenario occurring after each type of event.

■ Full Article in PDF (PDF, 593 KB)

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