

Effects of floods and landslides on people in a Mediterranean region (Calabria, Italy): victims, injured and involved people

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Damaging Hydrogeological Events (DHEs) are episodes of severe weather conditions that cause phenomena as landslides and floods resulting in both economic damage and human injury. In Calabria region (south Italy) these events are very frequent and pose a threat to resident people, because of the lack of both people awareness and specific information campaigns.

In this work we reviewed and upgraded a catalogue of historical information on damaging hydrogeological events which occurred in Calabria during the period 2000-2014, aiming to identify the main characteristics of episodes in which damage affect people. Each DHE is considered a scenario where four characters can act: a) victims: people who lost their life because of the direct or indirect impact of damaging phenomena; b) injured: people injured because direct or indirect effect of damaging phenomena, c) involved people: people who were directly involved into the development of damaging phenomena but manage to be neither killed nor injured, and d) rescuers: either professional rescuers (fireman, policeman etc.) or common people who help persons in difficulties because of the damaging phenomena.

In the study period, we found data about: a) 29 victims, b) 256 injured, c) 3348 involved people, and 1869 rescue operations. The great amount of data collected and the detailed descriptions, mainly gathered by newspapers, allowed us to systematise the following information: a) places in which damage to people occurred, b) the type of activity that people were doing when were affected, c) the dynamic of the interaction between the damaging phenomenon (landslide/flood) and the person/s affected, d) possible risky behaviours undertaken by people affected, and e) the type of actions carried out by rescuers.

All these information was categorised in a series of classes, statistically analysed and then used to create a profile for each of the characters involved in the DHEs. The result of the research, based on cases really happened, can supply a solid and believable basis to implement information campaigns for people residents in both the study region and in similar geographic and climatic environments, as in the framework of HyMeX project.