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Causes and circumstances of damage to people in Calabria (Italy) due to hydrogeological events in the period 1980-2014

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Damaging Hydrogeological Events (DHE) can be defined as rainy periods during which landslides and floods can damage people. We investigates the effects of DHE on people in Calabria (southern Italy) ,in the period 1980-2014, using data coming from the systematic survey of regional daily newspapers. Data about “fatalities”, people “injured” and people “involved” (not killed neither hurt) are stored in the database named PEOPLE, made of five sections: 1) event identification, 2) victim identification, 3) type of victim’s involvement, 4) victim-event interaction, and 5) effects on victim. The outcomes highlight vulnerability factors related to gender and age: males were killed more frequently (75%) than females (25%), and fatalities were older (average age 49 years) than injured (40.1 years) and involved people (40.5 years). The average age of females killed (67.5 years), injured (43.4 years) and involved (44.6 years) were higher than the same values assessed for males, maybe indicating that younger females tend to be more cautious than coetaneous males, while older females show an intrinsic greater vulnerability. Involved people were younger than injured and fatalities, perhaps because younger people showed greater promptness to react in dangerous situations. In the study region, floods caused more fatalities (67.9%), injured (55%) and involved people (55.3%) than landslides. Fatalities and injured mainly occurred outdoor, especially along roads, and the most dangerous dynamic seems to be dragged by flood, causing the majority of fatalities. The present work is the progression of the described research, and it has been carried out by enlarging the database to a 34-year period, from 1980 to 2014. The aim is to validate the conclusions drawn for the 2000-2014 period and to investigate if and how the gender and age vulnerability factors of Calabrian people have been changing throughout the study period.