



Geo-hydrological events and human losses: a gender perspective

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Reducing the loss of life and the number of people affected by natural disasters, including landslides and floods, is an expected outcome of the Sendai Framework that provided a set of guiding principles, including a call for the integration of a gender perspective. Previous studies on natural disasters have documented how people's social roles shape their experiences of disasters, their vulnerability, and their ability to respond and recover, highlighting how people's mortality in disasters can be dramatically exacerbated by their gender.

Within this framework, the main motivation guiding the present research is to understand how risk perception affected people behaviors divided by gender and age. At this aim the methodology we used consisted in carrying out a nationwide questionnaire in collaboration with an Italian independent Marketing Research Institute (Piepoli) to quantitatively measure the levels of geo-hydrological risk perception. For the purpose, we prepared the questionnaires designed to help the interviewees to consider first their general feelings about environmental and natural risks, and next, their specific understanding and fear of landslide and flood risk. The sampling strategy used a classification based on demographic variables, including: the size and distribution of the population in each Italian macro-region, the sex by age and the education degree.

Results were compared with the observed distribution by gender and age of landslide and flood fatalities in Italy.

The analysis is crucial to single out population groups most vulnerable to geo-hydrological hazard in Italy. The results obtained are important to improve the safety of people, to increase the resilience of communities to landslides and floods and to design effective informative risk reduction campaigns, as we have found that gender influences landslide and flood mortality. Data disaggregated by gender, age, and environment allowed the identification of possible associations between influential variables, and the selection of those that were most (statistically) significant. The norms of social processes related to the risk cycle may vary according to age, gender, and culture, as well as the social and economic context in which people live. In addition, the gender norms referred to the rules in different social groups (i.e. family, workplace, institution) are key factors in explaining how individuals respond to risk. In conclusion, the potential of gender analysis applied to that field, can promote the efficiency of the measures adopted to respond to crises and enable social equality in the response to the direct and indirect damage caused by geo-hydrological disasters, not only in Italy but everywhere.