



## **An attempt to estimate the economic value of the loss of human life due to landslide and flood events in Italy**

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Landslide and flood events in Italy cause wide and severe damage to buildings and infrastructure, and are frequently involved in the loss of human life. The cost estimates of past natural disasters generally refer to the amount of public money used for the restoration of the direct damage, and most commonly do not account for all disaster impacts. Other cost components, including indirect losses, are difficult to quantify and, among these, the cost of human lives. The value of specific human life can be identified with the value of a statistical life (VLS), defined as the value that an individual places on a marginal change in their likelihood of death. This is different from the value of an actual life. Based on information of fatal car accidents in Italy, we evaluate the cost that society suffers for the loss of life due to landslide and flood events. Using a catalogue of fatal landslide and flood events, for which information about gender and age of the fatalities is known, we determine the cost that society suffers for the loss of their life. For the purpose, we calculate the economic value in terms of the total income that the working-age population involved in the fatal events would have earned over the course of their life. For the computation, we use the pro-capita income calculated as the ratio between the GDP and the population value in Italy for each year, since 1980. Problems occur for children and retired people that we decided not to include in our estimates.