

Effects of damaging hydrogeological events on people: victims, injured and involved people throughout 24 years in a Mediterranean region

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This work investigates human consequences of Damaging Hydrogeological Events (DHEs). DHEs are defined as rainy periods, lasting from one to some days, during which landslides, floods, sea storms and wind can cause economic damage and human consequences.

The analysis is based on a detailed catalogue of DHEs that occurred in 24 years, between 1990-2014, in a Mediterranean region frequently affected by this kind of events (Calabria, southern Italy). We gathered data by systematically surveying a regional newspaper; then we integrated the information with additional event descriptions, interviews, witness's reports and comments posted in social networks and blogs.

The result is a database named PEOPLE, containing data on Calabrian people "killed", "injured" or "involved" (but not hurt) by Damaging Hydrogeological Events.

PEOPLE database is made of five sections:

1. EVENT IDENTIFICATION

- a. when the event happened (year, month, day, hour)
- b. where the event happened (region, municipality, coordinates)
- c. the type of phenomenon that damaged people (flood, landslide, sea storm, wind)

2. PEOPLE IDENTIFICATION

- a. name
- b. surname
- c. age
- d. gender

3. EFFECT ON PEOPLE

- a. killed
- b. injured
- c. involved

4. PEOPLE-EVENT INTERACTION

- a. place where people-event interaction occurred
- b. condition in which people were at the moment of the interaction
- c. activity in which people were involved at the moment of people-event interaction
- d. dynamic of people-event interaction

5. EFFECTS ON PEOPLE

- a. Causes of death
- b. Types of injuries
- c. Types of behaviors

The aim is to understand how and why people are involved in these events, and the most dangerous among different phenomena, conditions, places, activities and dynamics of people-event interaction. The results can improve the understanding of the impacts that geo-hydrological hazards pose to the population and can increase risk awareness among administrators and citizens. The outcomes can also be used to understand and highlight similarities and differences, if existing, in the behaviors of people in other countries affected by the same kind of events, in order to strength the strategies aiming to save people and warn about risky behaviors.