

Assessing social vulnerability to natural hazards for Italian country

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Abstract

In the framework of classical natural hazard, multi-hazard and risk assessment the concept of vulnerability is referred to the fraction of the total risk value that could be loss after a specific adverse event (Mazzocchi et al., 2009). However, over the last few years the term ‘Vulnerability’ has been frequently cited in scientific literature in regard to different context, focusing particularly to social-economic aspects that influence societal conditions such as exposure, sensitivity, coping, adaptive capacity and social capital (Adger, 2006).

Indeed, the natural hazards does not have a random effect on the local community and generally the most affected groups are the more vulnerable ones, already marginalized by class, race, ethnicity and gender. Therefore, natural hazards can be more or less devastating according to vulnerability, which depends on the time and place where the event happens and the socioeconomic conditions of the population affected (Cutter et. al., 2003).

Within this framework, the main purpose of this work is to assess social vulnerability indicator (SVIndex) toward natural hazard for Italian country in order to identify areas with different ability to react to catastrophic natural events, improving therefore all phases of the disaster cycle.

The social Vulnerability index (SVI) follows the ‘*hazard-of-place model*’, which is based on the assumption that vulnerability is a social condition, a measure of social resistance or resilience to natural hazards. SVIndex, built from census data, is developed using an approach based on socio-economics proxy variables such as age, employment, education and anthropization.

This study represent the first approach to understand and capture the major dimension of social vulnerability to natural hazard for Italian country; not only to identify appropriate cost-effective risk reduction measures to be implemented at a local level but also for help territorial planners to have a global vision on the natural processes which can interact with human communities, supporting them facing the impacts of potentially dangerous events.