



## **Integration of social perception in flash flood risk management for resilience improvement**

Andres Diez-Herrero (1), Maria Amerigo (2), Jose Maria Bodoque (3), Juan Antonio Garcia (4), and Jorge Olcina-Cantos (5)

(1) Department of Research and Geoscientific Prospective, Geological Survey of Spain, Madrid, Spain, (2) Department of Psychology, University of Castilla-La Mancha. Toledo, Spain., (3) Mining and Geological Engineering Department, University of Castilla-La Mancha, Campus Fábrica de Armas, Avda. Carlos III, Toledo E-5071, Spain., (4) Department of Marketing, University of Castilla-La Mancha. Talavera de la Reina, Spain., (5) Instituto Universitario de Geografía, Universidad de Alicante, 08003 Alicante, Spain.

Spain is, behind Switzerland, the second most mountainous country in Europe, which determines that after the occurrence of heavy or intense rainfall events, a fast hydrological response takes place due to steep slopes and strong hydrological connectivity. As a result, flash floods are, among natural hazards, the main social risk in Spain. In fact, they have provoked some of the greatest natural disasters in recent history of the country (e.g. Yebra and Almoguera in 1995, Biescas in 1996 or Badajoz in 1997, which totalized more than 200 deceased in the last decades). This work is focused on the village of Navaluenga (Central Spain), in which we have been studying flash floods, under the consideration of different perspectives and using different approaches, for the past 20 years; and in which the regional government has recently approved the Civil Protection Plan. In this research, we examine social perception of flash floods through surveys and interviews; one turn previous to the communication plan and other one after this dissemination activities to population. To this end, the individual and groupal differences were explored, by taking into account socio-demographic variables. In addition, we have considered psychological and material dimensions of vulnerability associated to flood risk, as well as to the emotional dimension through the consideration of psycho-environmental variables. Thus, this research aims to identify what aspects of the social perception differs from scientific/technical knowledge acquired which, in turn, may decrease the efficiency of a risk mitigation plan or even determine its failure. To minimize this lack of harmony, and at the same time to increase awareness of population, we propose a risk communication plan to improve preparedness of the community. To this end, we propose an approach in which messages reach the population quickly and in an understandable way. In this regard, risk communication is based on the integration of suitable protocols.