



Flash Flood Risk Perception in an Italian Alpine Region. From Research into Adaptive Strategies.

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Flash floods are characterised by short lead times and high levels of uncertainty. Adaptive strategies to face them need to take into account not only the physical characteristics of the hydro-geological phenomena, but also peoples' risk perceptions, attitudes and behaviours in case of an emergency.

It is quite obvious that a precondition for an effective adaptation, e.g. in the case of a warning, is the awareness of being endangered. At the same time the perceptions of those at risk and their likely actions inform hazard warning strategies and recovery programmes following such events. Usually low risk awareness or "wrong perceptions" of the residents are considered among the causes of an inadequate preparedness or response to flash floods as well as a symptom of a scarce self-protection culture.

In this paper we will focus on flood risk perception and on how research on this topic may contribute to design adaptive strategies and give inputs to flood policy decisions. We will report on a flood risk perception study of the population residing in four villages in an Italian Alpine Region (Trentino Alto-Adige), carried out between October 2005 and January 2006. A total of 400 standardised questionnaires were submitted to local residents by face to face interviews. The surveys were preceded by focus groups with officers from agencies in charge of flood risk management and semi-structured and in-depth interviews with policy, scientific and technical experts. Survey results indicated that people are not so worried about hydro-geological phenomena, and think that their community is more endangered than themselves. The knowledge of the territory and danger sources, the unpredictability of flash floods and the feeling of safety induced by structural devices are the main elements which make the difference in shaping residents' perceptions. The study also demonstrated a widespread lack of adoption of preparatory measures among residents, together with a general low evaluation of individual preparedness to face the events. At the same time there is a widespread trust in officials dealing with risk and emergency management, which confirms a general trend in delegating responsibility for safety to the agencies in charge.

It is clear from the research findings that the problem is not only a lack of risk awareness and that flash flood risk perceptions are socially constructed in the sense that norms and values, as well as belief systems, influence and possibly define them. Several factors intervene in this process and most of them are highly context dependent. Therefore we underline the importance of understanding the local contexts and engaging with local perspectives on risk in the design of adaptive strategies. Taking these perspectives seriously into account is a prerequisite for the inclusion of those at risk in awareness raising processes, in developing and delivering strategies and in planning flood management, as required also by the European Floods Directive (EU 2007), which foresees "the active involvement of interested parties in the production, review and updating of the flood risk management plans ..." (Article 10). We also underline that a major effort in understanding how risk perception research can inform adaptive strategies is still needed to improve individual capability to positively face future flash flood emergencies.