



## **Repositioning social science in natural hazards research**

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The classical view of social science held by the scientific natural hazards community is that social science is needed in two possible ways: (1) to help with the communication of understanding of natural hazards, grounded in an assumed knowledge deficit or the 'deficit model' in which it is 'the public that are assumed to be "deficient", while science is "sufficient"' (Sturgis and Allum, 2004); or (2) to develop the policy changes needed to address the implications of natural hazards research for human populations. In both of these, social science becomes bolted on to natural hazards research, rather than fully integrated through the research process. In this paper, and using the example of flood risk management, I will show that these two approaches are fundamentally flawed, requiring a radical reformulation of the relationship between natural science and social science, grounded in new interdisciplinary ways of working. My argument has two directions. The first will demonstrate why the reformulation is needed, based upon changing societal expectations over entitlement to scientific knowledge (e.g. Freedom of Information), as well as new emphases on digital dissemination and access to scientists and scientific findings. Taken together, I will present evidence that these drivers are enabling those who live with natural hazards to become much more involved in challenging the assumptions and methods of hazards researchers. Natural hazards research is now subject to much more vociferous scrutiny. The second direction will illustrate how we have responded to this by developing new interdisciplinary ways of doing natural hazards research in which social science methods and public involvement are embedded throughout the research process, from the beginning, during project formulation and framing, through to the end, during delivery of solutions. Rather than public involvement becoming a hindrance to delivering better flood risk management, I will show that the integration of both conventional scientific knowledge with lay or vernacular knowledge, throughout the research process, produces risk management solutions that are more sustainable and more realistic than those that have been attempted before.