

## Evaluating the co-production of a near real time Earthquake Aftershock forecasting tool for humanitarian risk assessment and emergency planning

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Concern Worldwide and the University of Ulster Geophysics Research Group are engaged in a project to coproduce a suite of software and mapping tools to assess aftershock hazard in near real-time during the emergency response phase of earthquake disaster, and inform humanitarian emergency planning and response activities. This paper uses a social learning approach to evaluate this co-production process. Following Wenger (1999) we differentiate between the earthquake science and humanitarian communities of practice (CoP) along three dimensions: enterprise (the purpose of CoPs and the problems participants are working to address), repertoire (knowledge, skills, language), and identity (values and boundaries). We examine the effectiveness of learning between CoP, focusing on boundary work and objects, and various organisational structures and aspects of the wider political economy of learning that enable and hinder the co-production process. We conclude by identifying a number of ways to more effectively integrate earthquake science into humanitarian decision-making, policy development and programme design.