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## Physics based simulations of multiple hazards for risk sensitive land use planning

**Luke Jenkins**, Maggie Creed, Karim Tarbali, Manoranjan Muthusamy, Robert Sakic Trogrlic, Jeremy Phillips, Hugh Sinclair, Carmine Galasso, and John McCloskey

University of Bristol, School of Earth Sciences, United Kingdom of Great Britain – England, Scotland, Wales

(luke.jenkins@bristol.ac.uk)

Rapid urban expansion in many parts of the world is increasing exposure to natural hazards, which are often exacerbated by climate change. We present the results of physics-based simulations for various flooding, earthquake, and debris-flow scenarios located in a region considered for future urban expansion. The effect of climate change, in terms of increasing rainfall intensity, is incorporated into some of the hazard scenarios. We show that a future urban area can be affected by: (1) multiple hazards at different locations; (2) multiple hazards at a particular location. We demonstrate that this information can be used to shape decision making around future social and built environment developments towards risk-informed future urban planning. In summary, this research demonstrates the importance of considering multiple hazards when designing disaster-resilient urban landscapes of tomorrow.