



Expert elicitation for a national-level volcano hazard model

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The quantification of volcanic hazard at national level is a vital pre-requisite to placing volcanic risk on a platform that permits meaningful comparison with other hazards such as earthquakes. New Zealand has up to a dozen dangerous volcanoes, with the usual mixed degrees of knowledge concerning their temporal and spatial eruptive history. Information on the 'size' of the eruptions, be it in terms of VEI, volume or duration, is sketchy at best. These limitations and the need for a uniform approach lend themselves to a subjective hazard analysis via expert elicitation. Approximately 20 New Zealand volcanologists provided estimates for the size of the next eruption from each volcano and, conditional on this, its location, timing and duration. Opinions were likewise elicited from a control group of statisticians, seismologists and (geo)chemists, all of whom had at least heard the term 'volcano'. The opinions were combined via the Cooke classical method. We will report on the preliminary results from the exercise.