

The recent trend survey of Probabilistic volcanic hazard assessment methods

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Forecasting of the volcanic eruption is challenging issue in the field of volcanic hazard assessment because of its uncertainties. On the occurrence of volcanic eruption, it may cause to human loss, Great environmental change, economic loss and fatal damage for infrastructures such as electric and water supply, traffic, railway and so on. A probabilistic hazard assessment that treat a volcanic eruption based upon statistical methods has been developed since 1960's (e.g. Wickman, 1966a; Reymont, 1969; Decker, 1986; Connor and Hill, 1995; Marzocchi and Bebbington, 2012). Here in Japan, the probabilistic method is not so popular to assessing a risk of volcanic hazard though, some approaches have been tried to investigate the impact of volcanic activities. The volcanic hazard assessment via probabilistic method has more possibility and potential to apply for evaluating a volcanic hazard in Japan. In this study, we researched the trend and proportions of probabilistic assessment method that developed all over the world and brought out a possibility and agenda which adapt to these methods to Japanese risk survey.

Keywords: Probabilistic volcanic hazard assessment, long-term prediction, short-term forecast