

## Risk Analyses by Volcanic Hazard and Vulnerability and Disaster Assessments of Active Volcanoes in Japan

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Volcanic disasters have a considerable range of risk factors due to various types and scales of volcanic activities. The risk factors of a target volcanic area and the risk assessment for each factor constitute significant disaster prevention information. Regional volcanic risk is determined by the scale and frequency of the hazard, the vulnerability of disaster prevention systems and facilities, the distribution of population, the social infrastructure. The risk value is calculated by the hazard, the degree of potential that a phenomenon has to cause a disaster, the vulnerability, and the value of the population and property potentially.

As Japan has a high population density and a high land use, this often develops areas as living spaces, even areas close to the volcanoes. For this reason, the advance assessment of potential risk caused by risk factors due to future volcanic activities for the target volcanic area is a productive operation toward the building of an effective disaster prevention system.

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