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'Understanding volcanoes and society: the key for risk mitigation'



Volcanic Hazard Mitigation in Indonesia

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Indonesia has more active volcanoes (127 volcanoes) than any other country, which represents about 13% of the world's active volcanoes. The most catastrophic and deadly volcanic disasters have occurred in Indonesia, such as the 1815 Tambora eruption, the 1883 Krakatau eruption, and the 2010 Merapi eruption. Therefore, the development of volcano monitoring system is very important to produce an effective and accurate early warning. In Indonesia, volcano monitoring activity is carried out by the Center for Volcanology and Geological Hazard Mitigation (CVGHM). At this moment, sixty-eight very active volcanoes in Indonesia are continuously monitored by seventy-four volcano observatories. The volcano monitoring system includes instrumentations' installation at the observatories and in the field encompassing multi-disciplinary methods such as seismic, deformation, and geochemistry. This monitoring system is also supported by volcanic hazard maps and risk maps that serve as a guide for local governments and the community to recognize the areas of potential hazards around the volcano. Well established volcano early warning system is represented by decreasing number of victims but increasing the number of refugees. Successful volcano early warning system is strongly influenced by coordination, communication and collaboration between stakeholders and communities around the volcano. In the case of ash eruption, information to aviation safety is also important. To implement optimal early warning system, policy, regulation and good strategy is needed.