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



Volcano observation data sharing system of Japan

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Active volcanoes in Japan are observed by universities, research institutes and administrative agencies for each purpose. Some organizations exchange seismometer data in real-time in a one to one and open the data to the public on their website, but some observation data are not shared as a whole and the database is not unified. Decision-makers of local governments cannot access the real-time volcano information sufficiently. We are developing comprehensive and accessible database and data sharing system of volcano observation in Japan. The database system will be shared by domestic universities, research institutes, administrative agencies and local governments for promotion volcanological research activities and contribution to volcano disaster mitigation. The database system is based on WOVOdat database system in anticipation of international data exchange and collaboration. We collect multi-parameter monitoring data from volcanic unrest to eruptive activity, and information of vulnerabilities and exposures with respect to volcanic hazards. Unified database enables us to compare an ongoing volcanic unrest of a specific volcano with past activity of the same volcano or analogous volcanoes, and centralized data processing of multi-parameter monitoring data. The event-tree analysis by unified monitoring data will present quantitative estimation of volcano hazard and risk and provide valuable information for the emergency response. We will also investigate effective information providing method by the hearing survey from local government and administrative agencies.