

Global volcano model: progress towards an international co-ordinated network for volcanic hazard and risk.

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GVM is a growing international collaboration that aims to create a sustainable, accessible information platform on volcanic hazard and risk. GVM is a network that aims to co-ordinate and integrate the efforts of the international volcanology community. Major international initiatives and partners such as IAVCEI, the Smithsonian Institution - Global Volcanism Program, State University of New York at Buffalo - VHub, Earth Observatory of Singapore - WOVOdat and many others underpin GVM. Activities currently include: design and development of databases of volcano data, volcanic hazards, vulnerability and exposure with internationally agreed metadata standards; establishment of methodologies for analysis of the data (e.g. hazard and exposure indices) to inform risk assessment; development of complementary hazards models and creation of relevant hazards and risk assessment tools; dissemination of these tools for online application (via vhub.org); and model benchmarking/comparison activities. GVM acts through establishing task forces to deliver explicit deliverables in finite periods of time. GVM has a task force to deliver a global assessment of volcanic risk for UN ISDR, a task force for indices, and a task force for volcano deformation from satellite observations. GVM is organising a Volcano Observatory Best Practices workshop in 2013. A recent product of GVM is a global database on large magnitude explosive eruptions. There is ongoing work to develop databases on debris avalanches, lava dome hazards and ash hazard. GVM aims to develop tools that can help anticipate future volcanism and its consequences.