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



Extending the Volcanoes of the World database in new directions

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The Smithsonian Global Volcanism Program's (GVP) database of Holocene volcanoes and eruptions, Volcanoes of the World (VOTW), originated in 1971, and was largely populated with content from the IAVCEI Catalog of Volcanoes of Active Volcanoes and some independent datasets. Volcanic activity reported by Smithsonian's Bulletin of the Global Volcanism Network and USGS/SI Weekly Activity Reports (and their predecessors), published research, and other varied sources has significantly expanded the database over the subsequent decades. Major efforts in the last five years involving a database conversion, schema changes, and volcano number updates have enabled GVP to begin linking VOTW to other databases and collaborating with other programs. Some of those projects have been completed, such as connecting Smithsonian physical sample collections to their source volcanoes and making geolocated volcanic subfeatures available as Google Earth placemarks. Partnering with the Volcano Global Risk Identification & Analysis Project (VOGRIPA) on the Large Magnitude Explosive Volcanic Eruptions (LaMEVE) database required taking a closer look at the preliminary list of Pleistocene volcanoes in the VOTW. The work of identifying, validating, and describing those older volcanoes (currently numbering over 1,100) is ongoing, but that list and the related volcano pages for each volcano have been made public on the GVP website. Ongoing projects and collaborations will soon be made public to allow greater data availability and scientific investigations. Behind the scenes work has been underway for the past two years to prepare a webservice portal. Database schema changes and development of standard templates and procedures are being finalized so that deformation and emissions data can be directly loaded into the VOTW alongside the eruptions. Related website updates and the creation of applications to view these new data combinations will be released in the near future.