



Cities on Volcanoes 9
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'Understanding volcanoes and society: the key for risk mitigation'



Binational Exchange Program for Volcanic Risk Reduction– Chaitén Volcano (Chile) and Long Valley Volcanic Region (USA).

Stuart Wilkinson¹, Margaret Mangan¹, Thomas Pierson²

¹US Geological Survey California Volcano Observatory

²US Geological Survey Cascades Volcano Observatory

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The United States Geological Survey/Volcano Disaster Assistance Program and the U.S. Agency for International Development/Office of Foreign Disaster Assistance inaugurated a binational exchange program in 2013 to bring together scientists, emergency responders, and civil authorities to discuss the challenges of integrating volcano science into crisis response and risk reduction practices. Delegates in the exchange participate in reciprocal visits, touring areas impacted by volcanic unrest or eruption, meeting with affected communities, and exchanging ideas and best practices for volcanic hazard preparedness, response, and mitigation. In 2015 the exchange visited the Long Valley Volcanic Region (California, USA) and Chaitén Volcano (Los Lagos region, southern Chile), both centers of explosive rhyolite eruptions. Delegates shared insights on volcano monitoring, warning systems, evacuation planning, and public education programs specific to the hazards associated with local volcanoes. The 2008-2009 eruption of Chaitén Volcano was the world's first explosive rhyolite eruption in the modern age of volcano monitoring. Little was known about the eruptive history of Chaitén prior to the eruption and no monitoring instruments were in place near the volcano. The town was largely destroyed by eruption-induced flooding and burial in sediment, but residents were successfully evacuated. The situation at Long Valley lies at the other end of the preparedness/response spectrum—its eruptive history is well known and sophisticated monitoring networks are in place to detect eruption precursors. The challenge for the Long Valley community is thus one of maintaining readiness in the face of prolonged and largely waning unrest without eruption. The experiences of scientists and authorities at each of these volcanoes brought a range of important perspectives to the Long Valley–Chaitén exchange. Discussions led to the conclusion that communities are not prepared for natural disasters unless both risk awareness and risk reduction efforts become an integral and ongoing part of community life.