

Geological outreach experiences at volcanic hazard zones

Lizette Bertin¹ y Felipe Flores¹

¹Servicio Nacional de Geología y Minería (SERNAGEOMIN), Chile.

Keywords: volcanic hazard, outreach program, risk perception, awareness, crisis management.

Villarrica volcano is one of the most active volcanoes in South America. Since 1558, at least 49 eruptions have been reported. The towns of Pucón, Villarrica, Coñaripe, Curarrehue and its rural surrounding are the most susceptible zones to volcanic processes. In fact, during the last eruption, occurred in 2015, those zones were affected by lahars and ash fall.

Natural disasters occurred in Chile in the last decade (earthquakes, tsunamis, floods and volcanic eruptions) have pointed out the importance of an awareness population. Uninformed population, without the knowledge of natural hazards, make them more vulnerable because: (1) the incomprehension of the volcanic hazard or geological maps and technical reports; (2) the inability to determine the conditions to proceed an auto evacuation in case of a collapse of the monitoring and alert systems; and (3) the lack of a family and community emergency plan. Crisis management meetings among SERNAGEOMIN, local authorities and community leaders, revealed the necessity of outreach programs of earth sciences for communities at risk.

Two activities were done focused to inhabitants and visitants of surrounding areas of Villarrica volcano that aim to raise awareness about volcanic hazards and reduce the vulnerability. The first one was training sessions for science teachers and tour guides, and the second was a volcanological interactive fair. To carry out these initiatives is important to have real commitment of the stakeholders, and scientists must be able to undertake a political and interdisciplinary work.

The effectiveness of these actions has been measured through asking to the participants by a poll one year after the activities. Results show that the information given has been helpful in order to promote a more realistic risk perception. Nevertheless, results also identify some difficulties to ensure the real transmissions of the information from teachers and tour guides to the community.