

IMPACTOS DE LA ERUPCIÓN DEL VOLCÁN HUAYNAPUTINA EN EL SUR DEL PERÚ

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Abstract

The historical largest eruption in Latin America occurred at Huaynaputina volcano between 19 February and early March 1600. This event caused the deaths of approximately 1,500 people, buried more than ten villages located within 20 km around the vent and disrupted the early Colonial economy in Peru, northern Chile and western Bolivia. With the aim to unravel the variety of impacts of such a large-scale volcanic eruption (VEI6), the Volcano Observatory of INGEMMET together with other Peruvian and international Institutions initiated the «Huayruro» project (funded by CienciaActiva - Fondecyt), and gathered Peruvian and foreign researchers interested in studies of large scale eruptions at historically active volcanoes. This project is being carried out by a multidisciplinary group encompassing geologists, geophysicists, climate experts, archaeologists and educators at different stages of the project development.

Keywords: *Huaynaputina volcano, Plinian eruption, volcanic hazard, risk, impact.*

SLOW ONSET EVENTS: RELATING CLIMATE CHANGE SCIENCE TO MANAGEMENT IN PERU

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Abstract

Due to its location in the tropical western margin of South America, Peru is a highly vulnerable country to suffer loss and damage related to Slow Onset Events (SOEs). This concept – unusual in the scientific community – was coined by climate change (CC) management officers to involve a series of changes in the natural environment due to the CC, *i.e.*, sea-level rise, ocean warming and acidification, atmosphere warming, glacier retreat, soil degradation, groundwater salinization, loss of biodiversity, desertification, among others. A clear definition of them as changes driven by global warming through climate change, and its diffusion, is needed since we verify a frequent mixing of them with other concepts as natural disasters and environmental pollution. What seems clear is that accurate knowledge of these SOEs, mapping of vulnerable zones, risk estimation, evaluation of potential loss and damage, and a clear policy definition to face them are still to be done in large areas.

All mentioned phenomena are research and monitoring subjects of first importance, and therefore treated by scientists, often in parallel tracks and compartmentalized research communities. Peru not being an exception, several research and academic -both public and private- institutions perform CC investigations in a fairly unconnected way releasing partial and/or controversial results. Considering that policy makers and action managers need robust and rigorous knowledge, a scientific multi-institutional committee, chaired by CONCYTEC with strong input of the Ministry of the Environment, is proposed to coordinate and integrate CC science programs and projects in benefit of the society.

Keywords: *Slow Onset Events, Global Change science, Peru.*