



Cities on Volcanoes 9
November 20-25, 2016
Puerto Varas, Chile

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



Vulnerability assessment of buildings to ash falls for eruptive events of Galeras volcano in Consaca Municipality, Nariño, Colombia

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Key words: vulnerability, assessment, ash fall, reduce risk, urban planning

Department of Nariño is located in the southwest of Colombia, in an area where plates Nazca and South America are generating a high seismic and volcanic activity, which has been evidenced by the occurrence of destructive earthquakes and the recent activation of some volcanoes considered active, among them Galeras Volcano, this makes the physical and social vulnerability in the region to potential dangers are considered as a risk for social and economic development of the region.

Incorporate the Risk Management into the urban planning is necessary to build resilience and sustainable cities, where development options are not seen threatened by the environmental characteristics of the territory, but rather where such characteristics can help your economic and social growth. The vulnerability assessment is a tool for urban planning processes and also allows you to establish structural and non-structural measures aimed at reducing existing risk and reduce new risks in the future.

This research aims to show a methodology of vulnerability assessment to ashfall by eruptive events of the Galeras volcano may be a pilot for the department of Nariño and the country, so that decision makers can control those human actions that raise the degree of risk exposure in order to reduce the vulnerability of buildings to ashfall, and to quantify the effects and consequences of a volcanic eruption of Galeras specifically in ashfall on infrastructure, in municipality of Consacá.