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

Structural Mitigation Analysis lahars in the Melipeuco Town, Derivatives Llaima Volcano – Chile, Value of Mapuche Science, Permanent Observer.

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Structural Mitigation Analysis lahars in the Melipeuco Town, Derivatives Llaima Volcano – Chile, Value of Mapuche Science, Permanent Observer. The Town of Melipeuco is located 14 km from the crater of the volcano Llaima. It is considered one of the most active volcanoes in Latin America. More than 50 eruptions have been recorded from 1640 to date. . Lahars of the Llaima volcano originate mostly by the sudden discharge of subglacial water generated by the rapid melting of snow and / or ice during algid stages of eruptions and the incorporation of the products generated during the eruption that cause them. In this research lahar inundation zones flows have been modeled using LAHARZ computer program by using lahar volumes of other volcanoes located in the southern Andes such as Villarrica, Calbuco and Chaitén. The development of structural measures (maintenance of works and new works), combined with non-structural measures (instrumental monitoring, education, evacuation plans, etc.), is considered essential in the prevention and mitigation of risk by lahar flows. Knowing the natural environment as a mitigation measure is a fundamental aspect that this work rescues. That is why it is given an intercultural character through consideration of the Mapuche knowledge. This is to enhance the efficiency and effectiveness of interventions, while the successful survival of this culture in the area will undoubtedly provide simple but effective recommendations for where to build and diminish an important variable, exposure to natural hazards.