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

Pilot study on the perception of volcanic hazards near Chiles-Cerro Negro volcanic complex on the Ecuadorian-Colombian border, following unrest in October 2014.

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The Chiles-Cerro Negro volcanic complex, located at the border between Colombia and Ecuador, began to show signs of significant increase in seismic activity in October 2014. This led the local government to increase the alert level based on reports/advice from the volcano observatory in Pasto who feared an impending eruption. The last period of unrest is unknown; there are no written records or oral traditions in the surrounding indigenous populations. This research examines the perception of volcanic hazards by the population living in close vicinity of the Chiles-Cerro Negro volcanic complex, during the new volcanic unrest. To assess the local understandings of the potential scale and severity of the situation they were facing, semi-structured interviews with residents from both the Colombian and Ecuadorian communities were carried out, alongside the representatives of the emergency response organizations deployed for this crisis. Integral to this was to establish how well the populations were prepared to face a potential eruption. The research demonstrates that the residents of the at risk area were confused about the actual characteristic and nature of the hazards that they are exposed to; therefore a clear level of awareness cannot be defined. Furthermore, there was significant variation in the residents' perception of the most relevant hazard for the community, depending on their proximity to the volcano. Moreover, people seemed extremely dependent on the authorities (e.g., for information, basic supplies, etc.). Although this pilot survey was small in scale (21 interviews), we believe it may still reflect the general perception of the community. Further work with the vulnerable populations could help increase their awareness and preparedness to face an eruption. Furthermore, allowing further community participation in the decision-making processes and planning of contingency actions could help in building trust and willingness to react upon an emergency.