

Volcanic hazard and demographic explosion in the Andean region: increasing the risk and early forecasting

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The Andean Region of South America is one of the best examples with many lessons to learn. Situated along major active subduction zones whose seismic and volcanic hazards, with hundreds of active volcanoes, where several eruptions occurred in the past century in developing countries located along the region. And some of them have been caused a large number of casualties and great damage to infrastructure, how was in Armero, El Chichón, Lonquimay, Hudson, etc. In another hand, the demographic explosion during the last decades have been contribute to increasing the mankind vulnerability to the natural hazards. And may have severe consequences not only for lives but also for the socio economic conditions for the future. United Nations in the Millennium Development Goals, recognize the natural disaster as potent inhibitors of development, as well as being the causes of huge economic losses. During the last 25 years the population grew more than 130 millions in the Andean Region, in their countries and particularly within their cities and towns and in the future large number of people will be concentrated in megacities, resulting population densities place many more people at risk to any hazards. Volcanic risk is a growing problem not only for cities near the volcanoes and also to far away megacities, as Buenos Aires, Rio de Janeiro, etc (case the Quizapu eruption in 1932). The most important strategic to reduce risk, will be the preparation of volcanic hazard maps and early warning systems and links between the volcanology community, emergency managers and city authorities in charge of the civilian protection, will be the main task to volcanic hazards mitigation in this XXI Century, to learn to live with volcanoes.