

Impacts and management of natural disasters in Andean cities: A case study of flooding in Central Peru

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The city of Huancayo, in the Andes of central Peru, has the Shullcas River as its main source of potable water, which originates in the Huaytapallana glacier. In addition to problems shared with other similar emergent Andean cities (e.g. population located in zones of high risk, water and air contamination, weak potable water supply systems, unplanned growth, etc.), Huancayo is frequently affected by floods from the Shullcas river, which inflicts human and material losses (e.g. damages to residential, educational, transport and public service infrastructures, losses in man-hours, hours of school study, etc.). The

floods are strongly associated to extreme rains and the melting of the Huaytapallana glacier, situation that is aggravated by the presence of the Huaytapallana tectonic fault.

One of the worse episodes of flooding in the city took place on December 28th, 1990, and its physical, socio-economical and political consequences persist to the present. The consequences, failures and weaknesses of the management of this disaster are analyzed. For example, there was little logistics and lack of coordination among institutions, which led to superposition of support in accessible zones, while more remote and less accessible zones were not adequately attended. Another deficiency was in informing the victims on the nature of the event (e.g. which was the origin of the disaster?, in which zone did it happen?), and on the measures to be taken (e.g. what type of aid will be provided?

to whom and when will it be given?). The post-disaster management was also inadequate, since the aid actions were concentrated in the days immediately after the disaster, and the support for the reconstruction and/or relocation was either inadequate or inexistent. In addition, the rehabilitation works were made without consulting, or even informing, the population.

The study concludes with a comparison with recent events of equal or larger magnitude in other latitudes, and presents some recommendations for the planning for before, during and after a disaster that involves the communication between the population, the institutions responsible and the local decisionmakers.