Geoscientific Communication Problem with Communities for Disaster Prevention and Land Planning in Peru

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Abstract

The communication process between the geoscientists and native communities in risk areas can significantly affect disaster prevention and land use planning. In Peru, the problem of disaster prevention is a fundamental policy due to unfamiliarity and deficiency of the associate information on the population. It is possible that talk of disaster prevention it will be an unlikely ideal in a country where most towns have settled on unplanned projects by the constant change and the lack of interest from the authorities in such topics. However, it is anachronistic that the rural communities and towns continue to live without a plan to enable them to improve their quality of life. The correct use of geoscience information in the mass media can help in this work. The characteristics of the enterprise in Peru require more training by professionals in the geosciences and support communication specialists. In this paper, we analyze the problem of communication for disaster prevention in Peru, with the aim of contributing to the articulation of a disaster prevention strategy.

Keywords

Communication process • Disaster prevention • Risk management • Peru

15.1 Introduction

In Peru there are many unknowns and little interest in the development of activities for disaster prevention, therefore awareness work is very important. The authorities, mainly the Central Government, act belatedly, only after the disaster that has occurred. They work in that direction at the time of the disaster and then forget the importance of prevention planning and sustainable reconstruction. For example, this can be seen in the performance of the authorities after the earthquake in Pisco (Ica, Perú) in 2007. Six years after the event, many affected people have not yet managed to regain the standard of life they had before the disaster. On the issue of land use, even though the regulations that should guide have been released, local authorities are not sufficiently prepared to use the information given by specialists; many times, norms are not understandable and so they cannot be applied. Properly designed geoscientific information would allow them to concentrate their actions on the development of alternatives initiatives, derived from management plans prepared by the specialists. By the above consideration, it is considered that disaster management and planning of land use are going tasks that must be managed from a multidisciplinary perspective.

15.2 Background

The current regulation in Peru, although it seeks to contribute to disasters prevention and the management of land use, has not been properly prepared due to improper
interpretation of the same. As an example, we cite recently approved Law No. 29869 (Law of population resettlement in very high risk areas not mitigable (CENEPRED 2012). This law states that local governments have the function to declare a “State of emergency” at the National Institute of Civil Defense (INDECI). This would allow them to access funding for relocation. However, this funding is often misused by local authorities that can take advantage of the economic support for appropriation of land and their subsequent sale. On the other hand, scientific institutions participate only as partners in the process of resettlement of populations located in areas classified with very high risk.

In many cases, it is left to scientific institutions to make the decision whether it is appropriate to relocate the population at a high risk level and the declaration of the so-called “IMMINENT DANGER”, an inappropriate term that it is not based on a definition that is scientifically correct, because what it is being studied is the susceptibility and danger, and these don’t end when it ceases to be imminent. The “imminence” is defined as the occurrence of a phenomenon in a “short-term” and it will be determined only when the processes will be monitored continuously; but in some cases this is not possible, as in case of earthquakes.

15.3 The Importance of Effective Communication to Ensure a Culture of Disaster Prevention

The communication by geoscientists to the authorities and population is a multidisciplinary, complex and dynamic work that involves a series of activities aimed at the application of scientific knowledge in the processes of human, social, territorial and sectorial development (Macedo et al. 2007).

The community, knowledge-generating institutions (entities proposing solutions) and the executing agencies (authorities, public and private institutions, etc.) have to be engaged in this task. The interaction with the community enables a collective and not individual production and it makes each person feel part of the project (Mucho et al. 2005).

A quality work is required and it has to be properly coordinated with all state institutions for the effective reduction of disaster risks. The primary objective should be to promote the transfer and application of the scientific research into the risk management. If the actors are not involved with other agencies and the community starting with the early stages of any study or research project, in many cases there is no continuity in the process of transforming into action the knowledge generated by scientific community and it would miss the opportunity to show the relevance of the Geosciences for society (UN/ISDR 2004; PMA: GCA 2005). This activity will ensure the strengthening and sustainability for proper risk management.

To consolidate citizen participation and action in disaster prevention, it is necessary that every person is aware of the importance of participation in the planning processes. Through grassroots organizations, roundtables, participatory plans, etc., people can work with the authorities. It is indispensable that people are well informed, so that their ideas are complemented by the scientific knowledge of the land.

15.4 Importance of Land Planning

Land planning is the process to organize spatial, social and economic development (Alfaro 2010). Its implementation is in the hands of specialists, but it is a task that must be engaged also by each of the country’s inhabitants. Therefore communication of geoscientific information plays an important role in the development of the land.

Among the benefits of land-use we mention:

- The orderly growth of communities.
- Disaster prevention.
- Increased security for the private investments.
- The protection of natural areas and indigenous communities.
- The knowledge and sustainable use of resources.
- Conflict prevention.

Significantly, land-use or subsystems management present four types of approaches: natural, urban, economic, and socio-cultural. The ideal is to implement a comprehensive approach that reconciles the objectives of each of the above items.

15.5 Conclusions

- To develop an effective communication between authorities and people in disaster prevention, one should consider a multidisciplinary team, complemented with communication specialists.
- It must be a commitment that the geoscientist’s knowledge dissemination to society will be in a simple language, and thus fulfill its purpose.
- The planning is no longer solely in the hands of specialists, it is a task that involves every citizen, so that they learn more of the potential disaster and that they better know their own territory.
In Peru, authorities need to be trained to address the real needs of the people and to understand the true importance of land use and its planning. It also requires the support of competent professionals in national and local governments to work with the authorities.

The authorities require large integrated projects in each region that must be considered essential in the land planning, the use of hazards maps and the use of technical reports that has to be explained by experts for their use.

It is necessary for institutions to intervene in a “technical-scientific” way and seeks changes in the laws and regulations which have misused the terminology associated with risk prevention.

It is important for scientific institutions to be involved in regional planning, as well as in emergency plans, and thus ensure better disaster risk management.

**References**


