



## **Psychological aspects in a volcanic crisis: El Hierro Island eruption (October, 2011).**

P. Lopez (1), A. Llinares (2), A. Garcia (3), J.M. Marrero (3), and R. Ortiz (3)

(1) YAPAMIRI, S.L., (2) Department of Soils Science and Geology. University of La Laguna. Tenerife, Canary Islands. Spain, (3) Institute of Geosciences (IGEO) CSIC-UCM, Madrid. Spain

The recent eruption on the El Hierro Island (Canary Islands, Spain) has shown that Psychology plays an important role in the emergence management of a natural phenomenon. However, Psychology continues to have no social coverage it deserves in the mitigation of the effects before, during and after the occurrence of a natural phenomenon. Keep in mind that an unresolved psychological problem involves an individual and collective mismatch may become unrecoverable.

The population of El Hierro has been under a state of alert since July 2011, when seismic activity begins, until the occurrence of submarine eruption in October 2011 that is held for more than three months. During this period the inhabitants of the small island have gone through different emotional states ranging from confusion to disappointment.

A volcanic eruption occurs not unexpectedly, allowing to have a time of preparation / action before the disaster. From the psychological point of view people from El Hierro Island have responded to different stages of the same natural process. Although the island of El Hierro is of volcanic origin, the population has no historical memory since the last eruption occurred in 1793. Therefore, the educational system does not adequately address the formation in volcanic risk. As a result people feel embarrassment when the seismovolcanic crisis begins, although no earthquakes felt. As an intermediate stage, when the earthquakes are felt by the population, scientists and operational Emergency Plan care to inform and prepare actions in case of a possible eruption. The population feel safe despite the concerns expressed by not knowing where, how and when the eruption will occur.

Once started the submarine eruption, taking into account that all the actions (evacuation, relocation, etc.) have worked well and that both their basic needs and security are covered there are new states of mind. These new emotional states ranging from disenchantment with the phenomenology of the phenomenon (submarine and no subaerial eruption) to exhaustion for the duration of the phenomenon. In addition, there are parallel factors directly involved in the population: the media, everyday problems, economic losses, political, and so on.

In this paper, after a detailed description of the situation experienced in El Hierro Island, are possible alternative psychological action to different behavioral manifestations of the population before the occurrence of a natural phenomenon that, at the moment, has not had serious consequences.