Increasing volcanic risk: the case of El Hierro, Canary Island, Spain.

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The El Hierro is the western and smallest island of the Canary archipelago (Spain). On July, 2011 an unrest began in El Hierro, and on September 10th the first serratian submarine eruption took place near La Restinga, in the south of the island. After the eruption, some periods of increased volcanic activity have been detected and the gps deformation values have not returned to the background level yet.

During the volcanic crisis of El Hierro several problems have been detected in the management process showing a clear degradation in the time response and increasing the economic crisis. Some problems are given by:

The initial strategy adopted by local authorities of the island was wrong. They considered the situation as a catastrophic event before the eruptions started, so all the efforts were conducted to demand subsides.

When the emergency plans and laws were made, the money issue was avoid of them so actually, each institution has to pay for its own bills. There is not a special money to manage long emergency operations such a volcanic crises, because the volcanic crisis was always considered like a short-term natural phenomena, instead of as a long-term natural phenomena.

At the beginning of the volcanic crisis, the response of Civil Protection was overreaction. A lot of people were sent from Tenerife and Gran Canaria to El Hierro and the cost of the operations was really high. However, during the third unrest, one of the most important, the reaction was under-reaction.

In all emergencies Civil Protection and authorities always try to minimize the level of risk. A paternalism and over-protection are the usual behavior when they have to communicate to the population whatever kind of information before the emergency starting.

From a global point, the scientific response was the worst of all statement, event worse than politicians ones. That it is the main reason that explains the degradation in the response-time.

Some scientific groups have the same problem as Civil Protection and politicians, the paternalism, so they try to minimize the volcanic activity all the time. As a result, they lost credibility with the public. In many times, because of the bad quality of the information provided to the public, their professional profile was seriously damage.

But the real problem was the declaration of war between Spanish geologist and physics (geophysics, mathematics, etc). Along the history, the former has been the main actors, specially in Canary Island. But the problem was they were specialized in studying the past volcanic history using the petrology and other techniques but they never worked on monitoring.

Another big problem is the lack of a real scientific committee. In fact the actual scientific committee is controlled by authorities. They decide who is invited to the meeting and then what kind of information will be use and transmitted to the population. In this situation, the consensus is really difficult.