

**VUELCO: Volcanic Unrest in Europe and Latin America**  
**2<sup>nd</sup> WORKSHOP**  
**“Scientific advice, decision-making, risk communication”**  
**7<sup>th</sup> – 8<sup>th</sup> November 2013**

**SESSION 2- “DECISION-MAKING: Emergency planning and crises management”**

**Synthesis and best-practices retrieved**

During the 2nd VUELCO workshop titled “Scientific advice, decision-making, risk communication”, organized by the Italian Department of Civil Protection on 7<sup>th</sup> - 8<sup>th</sup> November 2013, among the other topics, the attention was focused on the most potential best practices in the Emergency planning and crises management.

Three highly accredited mentors in the volcanic field and the Director of the Emergency Management Office of the Italian Civil Protection Department, were invited to bring up to the audience their experiences on the matter: Dr. Fabrizio Curcio (Director of Emergency Management Office, Department of Civil Protection, Italy), Prof. Hiromu Okada (Executive Director of Crisis and Environmental Management Policy Institute), Prof. Chris Newhall (Senior volcanologist), Prof. Renato Solidum (Director of Philippine Institute of Volcanology and Seismology). The session was chaired by Dr. Jo Gottsmann (VUELCO project scientific coordinator, University of Bristol).

Following the presentations the discussion revolved around the decision-making topics. An important part of the discussion related to the need for probabilistic models and expert advice to inform the decision-making authorities. However, it was also pointed out that probabilistic risk framework needs reference to terminology used in the local context and to what kind of events population is familiar to.

The issue of communication flow was discussed as well as several diagrams were shown to indicate the directionality of information flow and communication as part of the decision-making process. It was then questioned whether communication in reality follows those indicated path.

In the same context, the process of decision-making is often associated with “friendly fire” by contrasting scientific opinions which are often discussed in the public and the media. Such friendly fire appears in many cases to counteract the laudable efforts to seek well-balanced and informed decisions.



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The stress tests for volcanic crises issue was discussed and it was pointed out that stress tests need to be performed during "peace time" to properly elaborate the roles and rules of engagement amongst the main actors during emergent planning and response.

In the processes of giving scientific advice it was argued that at times it is appropriate to decline answering questions. In some cases there is lack of responses from municipalities to the specific volcanic threats identified in an area. In this context it was then pointed out that this may be related to a failure of providing a societal context of volcanic hazards.

Dealing with multiple stakeholders of volcanic risk such as for example several different municipalities during a crisis situation is a complex process, particularly in the light of possible future eruptive activity at Campi Flegrei caldera, with the possibility of having to evacuate 300.000 people.

The issue of false alarms was also touched in the context of unrest that does not lead to eruption. Rather than false alarms it was argued that some unrest episodes should perhaps be classified as "false starts" rather than false alarms.

Finally it was shown as, in an emergency management process, it is necessary perform a lot of activities, such as: analysis of the eruptive history, elaboration of hazard maps and scenarios, installation of new monitoring system and related ongoing interpretation, urgent education of officials and public, coordination of international response, management of politics and media just to mention some. To succeed the team needs to take all the necessary steps and have some luck. But without the necessary steps, no amount of luck will help.



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