



Interactive  
Comment

## ***Interactive comment on “On the use of Web-based-GIS for managing and disseminating hazard and risk spatial information in volcanic areas” by G. Le Cozannet et al.***

### **Anonymous Referee #3**

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This manuscript tells the story of how has been developed a webgis system, as part of the MIAVITA project, dedicated to communication to the authorities and to the population of the various issues related to natural hazards in the area of Mount Cameroon. The text analyzes the development of the idea through a large number of block-diagrams and it perfectly captures the major limitations and drawbacks. In general, the manuscript is not very interesting, because the idea is not innovative and webgis systems that deal with hazards are already in use in various governative institutions in the world. This system has also a limited applicability, as recognized by the authors themselves, in the abstract. The text is also full of jargons that only experts in computer

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science or management of information systems can easily understand. This makes the text quite complicated to follow and probably not of interest to a broad audience. Furthermore, it is also not clear how this system can be applied to other volcanoes, where risk management and the civil protection authorities are differently organized. As an example, in many organizations fundamental data layers are protected by copyrights and cannot be freely distributed. What I've found interesting is that the failure of this system is probably related to the fact that the authors started from the wrong point. In fact, from the text it seems that the set up of the system didn't start from a specific request of the local authorities that manage the risk. As a consequence it was created a product which was apparently unsolicited and perhaps even not appreciated by end-users because of its relative complexity. In detail: In the text there are several misspelling errors and many sentences are unclear. I directly made some changes; however, I suggest a massive intervention in the eventual re-writing of this manuscript. I also suggest to considerably shortening the text by cutting off parts of little functionality (e.g. the description of the work by Thierry et al. 2008). All figures need clarity; in fact used characters are too small. However, most of the figures are difficult to interpret or are even useless. As an example Figure 8 clearly shows a remarkable complexity for a non-expert GIS. It seems clear that a politician does not know what to do with a similar item. However, it is very likely that a similar conclusion would be reached in any other country in the world. Abstract: The abstract is poorly clear, it must be completely rewritten. Possibly it would be the case to better analyze in greater detail and more critically the strategic errors committed both at the planning stage, and at the testing phase. In this way, the scientific community could benefit from your experience. Introduction: This chapter is weak and the issues are not properly addressed. The necessity to develop a WebGIS does not apparently justify an article. Basically is only described how this webgis has been assembled and not its content. There is no reference to layers that have been entered into this system (e.g. the scale of the maps, their detail, the types of hazard, their probability of occurrence. . .). It seems to me much more interesting, for anyone working in this area, to understand the delicate

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steps that lead to the certification of the informative layers to be included in this container. As an example, for what concerns the hazard related to lava flows inundation: a) are simulations of lava flow paths already included as separate layers or b) is there a lava flow simulator included in the system? In case a) who has certified the quality of the input data? Was it a single person or a small group which took the responsibility to validate them or was it the international scientific of MIAVITA project? In case b) it is obvious that an end-user who is not an expert volcanologist cannot properly use a lava flow simulator, due to poor knowledge of the input parameters to use.

Other issues: I have observed that in this system the main information media, such as televisions and radios, are not included among the end-user of the information of the second level. This thing is not feasible in the Western world, where the media and social networks have free access to all information. What does the system in the event of a collapse of the Internet during a crisis? To conclude, this manuscript is nothing more than a report as it is currently written and the theme dealt. I suggest two possible options to the authors: a) To fully re-thought and rewrite this manuscript as a function of the purposes of the journal. The new ms must necessarily include a scientific analysis of the experience and show its practical applicability or to other volcanic systems in the world, or to other categories of natural hazards (e.g. floods, erosion of coastlines, severe weather conditions); b) To rewrite this manuscript in a more technical way and to submit it to a journal that deals with GIS or computer geoscience.

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