

Response to reviewer 1 :

- 1. Referee comment: In this manuscript authors present a Web-GIS tool to manage geographical data for multi-hazard and risk assessment in volcanic area. This framework is developed after the interaction between stakeholders and users with software designers. Overall the topic of the paper is interesting, but there seems to be little new in the paper or anything surprising in the results. In particular the actual advantages of the tool are not highlighted even in the Mount Cameroon application.*

We thank you for your time and constructive comments.

Regarding the first point (*novelty of the approach*): previous GIS tools developed to volcanoes have either targeted a specific hazards or the dissemination of data that do not characterize the hazard himself, (lines 11 to 24 page 5755 in the NHSSD manuscript). Here, we developed a tool able to manage any kind of hazard and risk information in an organized way, to display it simply and to manage priorities among the different users during the prevention, preparedness and crisis phases. To our knowledge, there was – at the time of this project - neither research nor commercial tool using mapserver as background publication engine that was suitable to the requirements of the users. We therefore developed a new tool, which represents a significant effort both in terms of formalization of user needs and IT development. Referring to the second point (*actual advantages of the tool in the Mount Cameroon application*), the main advantage remains to enable the dissemination of information to untrained users, taking care that critical users have priority access to the database (page 5756 / line 12).

We think that the topic as a whole is of significant policy importance: many efforts are currently dedicated to the development of the Global Earth Observation System of Systems (GEOSS), including web-based hazard and risk portals. Our paper contributes to fill the gap between (1) portals focused on specific earth observation products or specific hazards and (2) the needs of the users in terms of risk prevention and preparedness, for the specific case of volcanic areas.

We have prepared a shortened version of the paper, which we hope better emphasizes these two points.

- 2. Referee comment: For this reason I suggest at least to rewrite section 3.4 focusing also on what could be the effect of the use of the Web-GIS with respect to the printed version of the hazard maps by Thierry on Mt Cameroon especially for prevention and preparedness. Author should also focus on the future use of the WebGIS Mount Cameroon and in other volcanoes.*

We thank you for this recommendation. In the case of Mount Cameroon, moving toward an operational use of the tool was not possible. The reasons for this are well identified (paragraph 3.4), and they are due to general difficulty of sustaining capacity in many developing countries. We agree that it is relevant to extend the section 3.4. **We provide**

in a new version of the manuscript further insight into the future use of such clearing-house, in particular in the context of the GEOSS development.

3. Referee comment: *Moreover I recommend reducing the number of subsections since they make the paper quite hard to follow. For example section 2.5 could be inserted in the introduction of section 2 (“System design”) and section 3.1 and 3.2 could be joined in one.*

We agree. The new version of the paper has been shortened.

4. Referee comment: *Finally there are many English problems throughout the paper. Having someone for proof-reading purposes would be a significant help making the paper more professional.*

Referee comment: *Minor changes:*

- *It should be stated whether “Users” are a subset of the “Stakeholders” or not*
- *5757 line 12: change “...could constituted...” to “...could be constituted...”*
- *5759 line 28: change “...to fit those requirements...” to “...to fit users’ requirements...”*
- *5759 line 24: change “...distribution; we enclosed this system into a wrapper...” to “...distribution that we enclosed into a wrapper...”*
- *5760 line 26: change “...pending on...” to “...depending on...”*

This has been corrected.