



Interactive  
Comment

## ***Interactive comment on* “Structurally controlled hazard mapping of Southern Leyte, Philippines” by P. K. Luzon et al.**

### **Anonymous Referee #1**

Received and published: 28 October 2015

The paper is well written and describes a procedure to provide hazard mapping related to structurally controlled landslides. The study area is the province of Southern Leyte in Philippines. The procedure is based on linear pattern and discontinuities identification by using a software tool and a digital elevation model derived from SAR Interferometry. The discontinuity identification is followed by a kinematic analysis performed by using Matterocking software, which provides a classification of the failure types. The procedure was used to characterize the whole province of Southern Leyte in terms of susceptibility to structurally controlled landslides. This approach proved to be effective for the analysis of large areas. The paper can be published after minor revisions according to my comments in the following.

- 1) In the introduction authors should define a “structurally controlled landslide” and  
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comment the specificity of the proposed approach to this kind of failure. Is the procedure generalisable to other kind of landslides?

2) Figure 2 is not really useful, and anyhow is of poor quality.

3) Concerning the IfSAR product more details are needed: how it is obtained? From satellite or aircraft? What about vegetation cover? Depending on the wavelength, SAR imaging (and in particular interferometry) is sensible to vegetation cover: what's the SAR wavelength used? How it impacts on the discontinuity detection?

3) In Figures 4/5/7 colour-bars are needed, which explain the meaning of the colour.

4) The procedure is poorly validated (only Table 2) before the application to the whole province. More comments are needed on this issue.

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Interactive comment on Nat. Hazards Earth Syst. Sci. Discuss., 3, 5891, 2015.

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