

Interactive comment on “Assessing residential buildings value in Spain for risk analyses. Application to the landslide hazard in the Autonomous Community of Valencia” by I. Cantarino et al.

Anonymous Referee #4

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My comments coincide basically with those made by the anonymous reviewer #1 on February 2014, which in my opinion have not been adequately taken into account by the authors. This paper presents a procedure to disaggregate residential polygons in order to calculate the value of dwellings. This is the main contribution and novelty of their work. However, the paper has some weaknesses and requires major revision. It could be resubmitted provided that the following issues are properly addressed.

1) The state-of-the-art must be completed and updated. Some statements of the au-

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thors (i.e. page 3618: this type of map -risk map- has never fully developed and other similar comments in the introduction) suggest that they are not aware of the recent literature on the quantitative assessment of the landslide risk. I have included a few references below .

2) Even though there is no a full consensus on the landslide risk terminology, some terms are used in the paper in a different way than other landslide experts, particularly the exposure and vulnerability. The authors should justify the definitions used while taking into account the following references: AGS, 2007; Fell et al. 2008; TC32; UN-ISDR, 2009. In my opinion, for instance, exposure and elements at risk (page 3619) are not exchangeable terms when dealing with landslides.

3) The case study on risk assessment must be described in depth and completed. Particularly, it is necessary to explain how the different components of risk are obtained (landslide mechanisms, frequency, intensity, hazard, exposure, vulnerability). In this respect, the paper is ambiguous and plenty of contradictions.

The input data are not clear. The Hazard Section (page 3632) suggests that risk is derived from a landslide susceptibility map rather than a hazard map. Several questions arise: what types of landslides are present in the area? are different landslide mechanisms considered in the analysis? How is landslide intensity calculated? The vulnerability is a spatially distributed parameter (Van Westen et al 2005). How is this taken into account? Finally, a discussion on the appropriateness and reliability of the working scale (1:50,000) for this type of quantitative risk analysis is also required.

References

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