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Interactive comment on "Landslide inventory development in a data sparse region: spatial and temporal characteristics of landslides in Papua New Guinea" *by* J. C. Robbins and M. G. Petterson

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Thank you for your comments and suggestions related to our manuscript 'Landslide inventory in a data sparse region: spatial and temporal characteristics of landslides in Papua New Guinea'. Based on your comments we are making the following alterations to the manuscript.

(1) Added information to Section 1.1 'Study area and landslide incidence' (pg 4874|ln. 12) describing the total area of PNG and the area covered by mountainous terrain which could potentially be affected by landslides.

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(2) Have reproduced figures 1, 3 and 9 to be more legible

(3) With regard to the reviewers comment that 'landslide density (in Fig. 9a) should be calculated using the number of landslides triggered for each cluster' (ie. the cluster number of each landslide-triggering event), this would certainly be desirable. However, the number of landslides associated with a single landslide-triggering event is rarely recorded in PNG. The four cluster group sizes (1-10; 10-100; 100-1000 and >1000) used in this analysis were subjectively chosen, based on author knowledge of the area and reporting practices, to highlight and address the level of uncertainty within the database with regard to the 'true' numbers of landslides actually recorded. However, we will look to alter figure 9 to produce a density based on areas affected (points, polygons & uncertainty cluster classes) and will look at this as an alternative to the reviewers suggestion.

(4) With regard to lands use and deforestation, the authors will consider adding information on this topic in a revised version of the manuscript if the data availability matches the scale of the assessment completed in this study.

(5) The authors have also completed research (not published to date) on the use of satellite data to map landslides in specific (small domain) regions of PNG. This was not included in this manuscript as it forms part of a larger piece of work to look at the control factors related to landslide susceptibility in different areas of the country. Furthermore, the principal focus of the reviewed manuscript is to assess the requirements and develop a landslide event database that could be used to assess the occurrence of potential landslide triggers (which requires relatively high (day/month) temporal resolution of the event as well as location information). However, the reviewer's suggestion could be addressed by comparing the database outlined in this manuscript with the findings from the satellite-derived database (lower temporal resolution). We will add this comparison into the manuscript based on the reviewer's feedback (Added subsection to section 3.1 entitled '3.1.2 Completeness of the inventory').

(6) All citations and references have been checked and altered where necessary.

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