Interactive comment on “Analysis of changes in post-seismic landslide distribution and its effect on building reconstruction” by W. Yang et al.

Anonymous Referee #1

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Review comments about “Analysis of changes in post-seismic landslide distribution and its effect on building reconstruction”:

1) This paper aimed at analyzing the distribution of post-seismic landslide and its effect on building reconstruction. In the manuscript, hazards are generally analyzed by using image interpretation and field survey. But some conclusions are ordinary or superficial. e.g. “houses were built on areas with gentler slopes, lower elevation areas and closer to the riverbed. The width and depth of the riverbed have changed dramatically because of material from landslides and debris flows.” This reviewer can not find innovation point from the manuscript, ether in theory or methodology. 2) Since the number of housing was 2136 and 2371 before and after earthquake respectively, it is unreasonable to use the house distribution percentage to distinguish the changes in
different distances from surface rapture - riverbank or at different slopes and elevations, e.g., in Fig. 3, the percentage of housing was 14% and 13% at distance 0~50m before and after earthquake, actually the number of housing was 300 and 308, which showed the houses before earthquake was less than that of after earthquake. This causes confusion to readers. 3) As is well known, the Wenchuan earthquake area is about $50 \times 10^4 \text{km}^2$, and the number of geohazards induced by this earthquake reached more than $3 \times 10^4$. However, this manuscript only took a small basin as study area to reveal the interaction mechanism of mountain disasters. This reviewer doubts the representative of this research and advises adding some more typical study areas. 4) It is rational to select the buried houses located on the riverbed as reference points to estimate the depth change of deposits along the stream. The site selection is an important step. However, in Fig. 2, site a and site b were chosen on the river bend. So, the hydraulic characteristics of river at site a and site b are quite different from those at site c and site d. Therefore, it is unreasonable to estimate the depth change of deposits along the stream based on site a-d. 5) This paper is not written well. The logic of the manuscript is a little poor and some contents are redundant. e.g. In Page 5508, lines 7-11 and Paragraph 2, and Page 5509, line 18-28 and Paragraph 4, there are some repetitive contents to introduce the elevation of the watershed. It should be condensed and refined. 6) The quality improvement of the English language is required. Weaknesses of grammar and style make some parts of the manuscript hard to be understood. e.g. In page 5510, line 10 “at Upper Hongxi, Jiankang and Nanba villages (Fig. 7a)”. But “Nanba village” is not in Fig. 7a. 7) Some small mistakes need to be revised. e.g. Page 5519, Figure 3 “persontage” should be “percentage”. 8) Fig. 4, Fig. 5, Fig. 6, Fig. 7 need to be drawn more clearly. And the annotation of each figure should be in accordance with that in text. e.g. authors should mark a and b Fig. 5, Fig. 6, Fig. 7.

Overall, this reviewer don’t regard the manuscript contains sufficient elements of novelty and hard justify its value to be published by Natural Hazards and Earth System Sciences and suggest submitting this manuscript to other publication.
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