

## ***Interactive comment on “Two multi-temporal datasets to track the enhanced landsliding after the 2008 Wenchuan earthquake” by Xuanmei Fan et al.***

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The Wenchuan earthquake is a major event where many slope failures have been recorded (200,000+) in one single event. I think this is the most important earthquake in the last century in terms of the amount of debris that exposed. The importance of this earthquake in landslide science is not only due to the number of landslides it triggered. The change in the type and size of the landslides after the earthquake showed that the effects of the earthquake could last much longer than expected which is emphasized in the manuscript. The dataset revealed by this study was produced from very high-resolution images to map the pre- and coseismic landslides, post-seismic reactivations

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of coseismic landslide debris and new landslides in the main earthquake struck the region. Unlike other studies in this respect, this contribution is based on the extensive results of the earthquake and made the data freely available to other researchers which are quite important to improve the current knowledge state regarding the coseismic landslide hazard. Moreover, the two multi-temporal data sets presented in this study have the potential to contribute for better understanding the relaxation phase of the landscape after major earthquakes and the full impact of earthquake-induced landslides on the landscape. This will allow for a more comprehensive understanding of temporal perturbations caused by strong earthquakes. My suggestion is that these two valuable datasets worth to be published after minor revisions. The following comments are provided and hopefully useful to the authors to improve the manuscript. Comments; (1) please clarify the main difference between debris flows in different data set of co-seismic landslide and post-seismic reactivation and new landslides. Some of them, especially post-seismic reactivations, looks like torrents and/or channelized debris flows. (2) Please consider changing the title of 3.1.3 “Simple statistics” to “Descriptive statistics”. (3) In general, the manuscript is lack of a rigorous description of the landslide volume calculations. Please give more details about the volume estimation of the debris flow deposited at the fan area and also for other volume estimation that has been used in the study for landslides.

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