

Interactive comment on “A huge deep-seated ancient rock landslide: recognition, mechanism and stability” by M. G. Tang et al.

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First of all, we greatly appreciate this insightful and useful review and have addressed all of the review comments in the following paragraphs and via substantial modifications in the paper. Therefore, we will edit our manuscript as such that this becomes clearer and more proper in the next version of the manuscript. Below we firstly reply to reviewer's comments and suggestions in detail:

In principle, this paper presents an interesting case study in the Three Gorges region. However, for publication some substantial revisions are required, comprising following items: - Text and figures are poorly organised and shall be structured more properly; Reply: This is very good point. We should add a more detailed explanation of the

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purpose of paper. Once some people thought the Sanmashan landslide (we call) is not a landslide. In order to prove it is a landslide, we use a lot of words. Please see "3 Fault graben can not form". But may confuse the readers. Now we understand, it must be a landslide when the characterisation (including geologic setting, geomorphic and structural evidence, sliding marks, et al.) and mechanism of landslide is clearly described. So the section "3 Fault graben can not form" is redundant. According to the reviewer's comments and suggestions, we will reorganise and shall be structured more properly.

- Several investigation methods and thus related results are not described, e.g. borehole logs (unclear if borehole measurements/tests were performed), lab analyses (yielding geotechnical parameter for the slope stability analyses), etc.; shall be explained/discussed more detailed; Reply: This will be modified. There are a lot of boreholes and several piezometric measurements. We will supply the information in "4.2 Structural evidence". The geotechnical parameter for the slope stability analyses will be emphasized in the text.

- Relevance of some lab tests (e.g. centrifuge? sandbox model) for the landslide processes unclear, shall be explained/discussed more detailed; Reply: We will supply the materials as far as possible to show the relevance of centrifuge modeling and geological modeling. This will be done either here or in the discussion section.

- Status of landslide activity (damages to infrastructure encountered?) and reactivation potential unclear, shall be explained/discussed more detailed; Reply: There are several deformation monitoring points. And the results show that Houzishi secondary landslide at the foot of Sanmashan landslide once appeared some signs of deformation, but the deformation is very small and no development in recent years. Overall now the landslide is inactive. Above information will be described in the next version of the manuscript.

- Terminology (geological and landslide-related terms) shall be revised according to

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international standards / state-of-the-art literature. Reply: It will be conducted in the next version of the manuscript.

Furthermore, for the international reader community it would be helpful to revise the (sometimes poor) English. Reply: We will invite an English native expert to polish language.

Interactive comment on Nat. Hazards Earth Syst. Sci. Discuss., 3, 6791, 2015.