Review of author response- *Brief communication: Rapid ~335 x 10^6 m^3 bed erosion after detachment of the Sedongpu Glacier (Tibet)*

I thank the authors for their rapid response to the two reviews and edits to the manuscript. The changes to the manuscript go a long way towards addressing my previous concerns, particularly by enhancing the discussion around the causes of the extremely rapid erosion episode and the broader implications of the work. I am glad to see this newly added sentence in the abstract "*The recent erosion volumes at Sedongpu are by order of magnitude equivalent to the average annual denudation volume of the entire mountainous part of the Brahmaputra River basin, and illustrate a potential and intensity for rapid post-glacial landscape evolution and the hazards related to such high-magnitude low-frequency events that have rarely been considered so far.*" which I think will interest a whole new group of potential readers.

Overall, I recommend the authors make minor revisions to complete a few of the additional changes described here, after which this manuscript would be suitable for publication in TC.

If the intention was to create a full-length manuscript, I would have recommended that the authors add in a component of landscape modelling to the manuscript alongside the remote sensing. The two methods would complement each other nicely in evaluating this extreme event, and may allow for some constrains on the properties of the sediment (e.g. erodibility). This remote-sensing only manuscript makes for a good Brief Communication with the changes and does not have space for this added material, but it may be worth noting briefly in the discussions. It could make for a good follow-up paper to this.

Finally, the new supplementary material is very useful and should be discussed in a little more detail. The Sentinel-1 timeseries shows the rapid unzipping of the landscape in a way that is not currently captured in the manuscript. In addition, the period of rapid change in the delta within the Tsangpo from June to Aug 2021 provides some clues into when sediment was being delivered to this river. I would like to see 1-2 more sentences describing this. I am not sure if there is space for a new figure in the manuscript, but showing the following three images really highlights the processes occurring during the period between the two DEMs (e.g. below). Maybe it could be a figure in the sup mat and referred to directly.
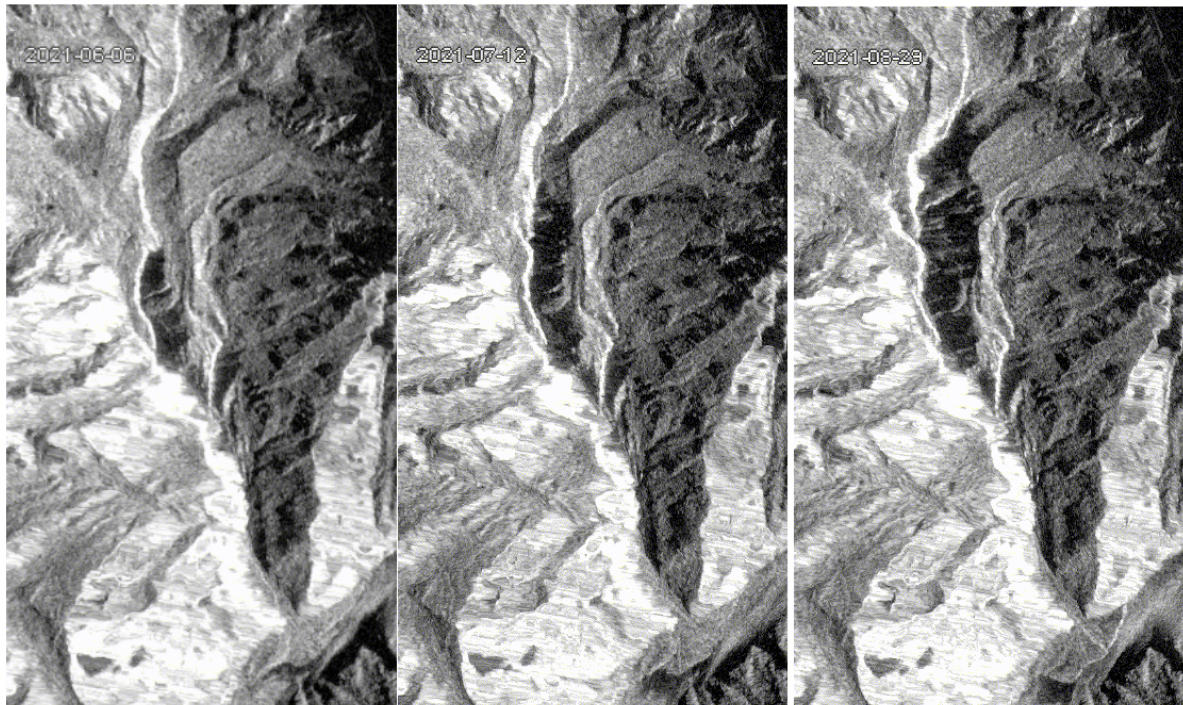
Finally, I am wondering about one other potential implication of this event. The volumes of sediment mobilized are on the same order as a very large landslide. This sediment happened to be delivered to the Tsangpo, one of the rivers with the greatest sediment transport capacity in the globe, so could largely be accommodated into the system. However, if this had occurred in a smaller catchment, there would be a very high chance of the river being temporarily dammed with associated outburst flood risk. It is somewhat speculative, but it could be useful to note this point in the broader implications.

 A few specific points:

L8 (and elsewhere) remove 'River', it is not needed.

L15 'mountainous part of the…' Not quite clear what this means. Could you be more clear and reword?

L42 maybe "Yarlung Tsangpo (also known as the Brahmaputra in its lower reaches)"?

L52 'should have been' -> 'was'

L73-80 I understand that this material was added in response to the other review's question about removal of material in the initial event, but I am not very convinced by it. The ongoing destabilization of this glacier raises questions about many of the assumptions underpinning the ice-thickness calculations in both the Farinotti et al., 2019 and Millan et al., (2022) datasets. The problems may be more apparent in Millan et al.'s dataset, but the Farinotti et al., dataset may match the elevation loss by coincidence (examining the spread within the different models averaged at this location may give some idea). Finally, the uncertainties in both of these datasets for an individual glacier are much larger than the DoD and I am not sure about the usefulness of this comparison. You can mention it, but it will need to be framed by more discussion about the inherent uncertainties of these data.

Beyond this, I am not sure how much it matters whether the initial collapse was entirely composed of ice or entrained basal sediment for the remainder of this manuscript. If you say something along the lines of 'Pre-collapse ice-thickness datasets are not of sufficient accuracy to evaluate whether the initial event was entirely composed of glacier ice, whether it entrained basal sediment, and what the volume of sediment entrained might have been. Examination of post-collapse optical imagery could not identify a large erosional scar in the subglacial sediment (Kaab et al., 2021), although this was not confirmed by direct field observations.'

L103 I am genuinely astonished that this volume of material could be removed without the occurrence of debris flows. I only had time to have a very quick read through Yang et al.'s preprint, but do you have an idea what scale of debris flow could have been missed by their equipment? It sounds like it was moved to a point higher in the channel in 2021 following the March event, so may have been less sensitive?

L143-150 It would be good to refer to the Sentinel-1 imagery in this, as it supports the description (which appears a little speculative without it).

L180-183 Again, really happy to see this larger-scale description here, which is one of the most remarkable findings in my view. This sentence needs a reference (or several) for the source of the basin-wide erosion rate data.

L192-193 The two halves of this sentence are not entirely equivalent. While the volume and rate of the Sedomgpu erosion dwarf GLOF, the relative frequency of each is (as far as I know) not known. This should be added to the sentence or reworded so it is not implying that these events are an even larger driver of erosion in the Himalaya (which I don't think is what you are trying to say).

Code availability: This change is good and it makes it easier for readers to find the exact information.

-Max Van Wyk de Vries