

Answer to the comments of reviewer 1 and 3. Line numbers refer to the line in the manuscript without track changes.

Comment	Answer
R1: L30: Please make clear what kind of landslide you are talking about. Depending on the landslide type and landslide driver, climate change might have different impacts.	We have specified that it is landslides sensitive to WTD change
R3: L113: It would be great for the general understanding of the setting to elaborate briefly on when those landslides started moving. The fact that there are plenty of houses shows that the area must have been "stable" not too long ago. As you describe there was 1981 with a lot of movement in one location. However it is not clear from the text if this is when the deformation started or if this was a period of rapid deformation in an already developed landslide body. Adding a short paragraph on this would highlight the case and urgency of the climate driven changes.	We have added two sentences on this in the end of the paragraph
R1: L163: DEM could be specified as DTM (digital terrain model)	We have specified digital terrain model
R3: L173: you could mention feature tracking, too	We have mentioned feature tracking
R1: L173: Mentioned feature tracking	We have mentioned feature tracking
R1: L205: visually satisfying is not a scientific argument. Window size for smoothing is crucial and should be set carefully and comprehensible based on objective criteria and not subjective ones (e.g. according to measurement accuracy?)	We have deleted the sentence and now refer to Handwerker et al 2022 for the selection of the window
R1: L209: Would be good to provide information about the parameters you collected during field visits to verify remote sensing data of landslide activity?	We've mentioned this in section 3.1
R1: L265:... which makes far future mor relevant ...--> but also more uncertain.	We have added the suggestion
R3: L321: was this the initiation of the slide or was there deformation before?	We don't know of this unfortunately
R3: L327: is there any information if and how the two other slides were active during this high precipitation period?	We only have information on the Svinget landslide regarding this episode in 1980/81
R1: L367: For correlating precipitation with landslide movement, you should consider a certain time lag - time between rainfall and groundwater level rise. You could have tried to use a running sum for the precipitation time series.	Since we already aggregate the WTD and precipitation data, former to mean monthly and latter to weekly sums, the time lag is indirectly already considered. Since the WTD is relatively close to the terrain (less than 2 m in many cases) we often see a direct response of the WTD to precipitation events. Due to the quick response of the groundwater, we consider the correlation

	<p>analysis of weekly precipitation with landslide movement as suitable.</p> <p>We have added a sentence elaborating on this</p>
<p>R1: L410: This are valuable informations - In this context (complex) hydrogeological settings resulting from prevailing local geological conditions and their control on WTD depth could have been discussed (Presence and location of aquitards?) Hydrogeological processes causing changes in WTD typically show spatio-temporal complex behaviours and are difficult to consider.</p>	<p>We agree on this. Apart from mentioning this here it is beyond the scope of our paper to go into the details of this already published hydrological model</p>
<p>R3: L429: increased weight of the landslide body in most cases leads to an increase of basal shear stress rather than a decrease of shear strength.</p> <p>Crozier (2010) writes that with increased weight the shear strength/stress ratio decreases.</p> <p>a higher water table decreases the shear strength</p>	<p>We have deleted the mention of loading reducing shear strength</p>