

We thank the reviewer for the thoughtful comments and suggestions to our manuscript. We agree with the main points made by the reviewer and would like to revise our manuscript according to the suggestions. Some of the revisions proposed will be difficult to implement due to the intraplate location of our study area, as we describe below. We include our responses to the individual comments in the following (reviewer comments in *grey italics*, our response in black).

Cover letter:

The manuscript I've reviewed is very well written, in a clear and concise manner. Some comments have been added in the attached document.

My only doubt is that the entire judgment is based on a very reduced number of landslides, quite scattered (the authors mentioned this as a potential shortcoming).

We acknowledge that the total number of landslides we find in our study is low, but still find the results important and worth publishing, especially since this is the first systematic study of EQIL in Norway and because we thereby more than double the number of EQIL in intraplate regions with information available in the literature.

Comments in manuscript:

Page 1: A series of pictures with the (described or similar) landslides would be very helpful in order to understand the morphology and the magnitude of the slope processes.

Unfortunately (to our knowledge) there are no photos of Norwegian EQIL. However, we would like to include photos of a rockfall and a landslide in clayey soil to clarify the processes as suggested by the reviewer.

Page 3 (L70): Maybe a map/sketch with the seismo-tectonic context would make the localization of this intraplate domain more easily understandable.

We plan to add plate boundaries, and potentially other tectonic elements, to Figure 1 to make the seismotectonic context clearer to the reader.

Page 3 (L72): Hypocentral depth should be mentioned. As well, some brief information about preferential seismic wave propagation, faults/ruptural surfaces distribution, structural or lithological amplification/attenuation should be given.

Due to the limited data available, it is not possible to determine the depth of the 1819 earthquake. The same is the case for identification of fault plane, wave propagation etc. The event is described in more detail in section 3.1 and with that in mind we find the description in the introduction sufficient. However, we will add a comment on the general depths of Norwegian earthquakes as this information was missing. We will also add a brief discussion of event depths in the discussion section.

Page 3 (L78): The names mentioned below should be placed on the map, which is otherwise "blind". This refers also to the rest of the maps below, which should be linked with the associated names.

We will add more placenames to the maps. For some of the locations we may instead describe the locations of mentioned places.

Page 3 (L89): How many?

The present land uplift in Norway is up to 4 mm/yr, increasing from West to East. This information will be added to the manuscript.

Page 3 (L90): is...

We are not sure what the reviewer means with this comment, to us the sentence seems grammatically correct.

Page 3 (L90): As a triggering factor, but what about a preparing factor?

The study of Olesen et al. (2013) discusses the contemporary stress field in Norway, and the authors argue that postglacial rebound plays a minor role in generating crustal stresses and thus earthquake activity today.

Page 4 (Fig 1): ...or maybe complete this figure with the tectonic framework.

As mentioned above, we plan to add plate boundaries, and potentially other tectonic elements, to Figure 1 to make the seismotectonic context clearer to the reader.

Page 5 (L106): Citation needed.

A citation will be added.

Page 5 (L111): s

We do not think it would be grammatically correct to add an "s" to construction work, so we would prefer to leave the text as it is.

Page 5 (L122): Is this value in agreement with a particular reasoning?

We answer that question in the following section "Data": *"Whereas smaller events may trigger landslides as well, we select the lower magnitude threshold of $M=4.5$ in order to have a systematic overview of the landslide-triggering-potential of earthquakes nationally."*

Page 5 (L130): From this point of view, you should explain if you considered only co-seismic or also post-seismic events and what was the reasoning behind this.

We consider mostly co-seismic events, but also include post-seismic events in cases where the time delay does not exceed a few days, and when the link between earthquake and landslide is convincing. These considerations are described in more detail under the descriptions of the individual events.

Page 6 (L159): Apparently, there is one occurred after 6 days?

It is true that we mention that landslides continue beyond the 5-day period near Bullaren following the 1904 earthquake. However, this is a series of landslides that started within the 5-day period. We still find it important to mention that this landslide activity continued beyond the first 5 days after the earthquake.

Page 6 (L159): The reasoning behind the values (5, 250) should be explained.

The time and distance limits are selected as plausible maxima based on previous observations and considering that landslides occurring outside those limits would be difficult to directly associate with the considered earthquakes. We will add a sentence on the reasoning to the manuscript.

Page 6 (L159): Would such words as "seismic + shake" make any difference?

Including those terms does not lead to identification of additional events.

Page 7 (L165): How was the antecedent rain period defined?

We will revise Figure 5 and the discussion of the role of antecedent rainfall. See also our response to the related comment further down.

Page 8 (Fig 3): As in "earth slides"?

The used terminology (clay slide) is imprecise, what we mean is "landslide in clayey soil". We will correct this throughout the paper.

Page 9 (Table 1): A correspondent with a type of displaced material (earth/soil/debris/rock) would make the comparison easier. Otherwise, an explanation of "clay slide" as a certain typology is needed
See previous response. We will use the more correct term "landslide in clayey soil".

Page 9 (Table 1): For a better understanding, it would be advisable to express all the magnitudes in only one scale (Mw, for example).

In principle, we agree with the reviewer that it would be better to use only one consistent magnitude scale. However, because the considered events are mostly historical and Norway is a region of moderate seismicity, we do not have consistent magnitude assignments for the events. We do not want to add further uncertainty by applying magnitude conversions and therefore present the most reliable magnitude estimate for each event.

Page 13 (L227): Meters would be advisable.

We will add a comment that this corresponds to about 6 m.

Page 13 (L235): Would you consider less than one month of antecedent precipitation as relevant? Is this based on some previous observations? If not, the reasoning behind not enlarging the analysis sequence would be needed. Same, for the others.

We agree that the descriptions of the role of precipitation are not entirely clear. In a revised manuscript, we would like to consistently display the precipitation for the 30-day period prior to each earthquake (instead of just showing the month of the earthquake as is currently the case). We will also clarify the discussion in terms of the difference between antecedent precipitation and the direct triggering of landslides by precipitation.

Page 13 (L250): The surface would make more sense...

What we actually mean is "Western shore". We will revise the text accordingly.

Page 19 (Fig 8): Is there any PGA map which can be used for comparison purposes?

The event occurred before a seismic network was developed in Norway, so there is no PGA map for the event.