

REPLIES TO THE REVIEWER

Paper was improved significantly, but, nevertheless, some important moments still require additional comments.

REPLY: *We have taken into consideration all the new suggestions, as described below point-by-point.*

Lines 106-107. ... characterized by debris, colluvium, alluvial and ancient landslide deposits.

REPLY: *corrected as suggested.*

Lines 113-114. The Jvari-Mestia road at the head of the Khoko landslide was built during construction of the Enguri dam, since the pre-existing road was submerged by the reservoir. And the steep scarp just above the road is mainly the road cut, not the landslide headscarp.

REPLY: *we have already replied to the same observation in the previous round of reviews. However, probably we haven't been clear enough, in the sense that we agree that some modification to the original scarp may have taken place during the excavation of the new road, but this occurred only at the foot of the landslide head scarp. In fact, it is impossible that the workers excavated as much as 70 m of depth, creating such a continuous high escarpment. The steep, high slope above the road represents the landslide scarp, because, as we have already written, it extends also outside the road. In this new version of the paper we have written that some modification may have taken place during road excavation operations, at the foot of the original landslide head scarp.*

Lines 165, 167, 171. You mention that the piezometers installed during 2015 across the landslide, were interrupted at some depth. It will be useful to describe in more details what exactly happened. where these boreholes cut by the sliding surfaces, or something else had happened.

REPLY: *We had already described in detail the various possibilities, and we think that nothing more can be added in this regard. This is the original text: "Although the a priori hypothesis must be mentioned that these interruptions may have been produced by infiltration of fine material into the piezometers, we made the measurements in May 2017, only two years after their installation, thus the very recent age of the piezometers suggests that these may be the depths where the piezometric logs are intersected by the sliding surfaces of active landslides. This is supported by the observation that close piezometers, originally excavated down to different depths, are now interrupted at the same depth, such as BH3 and BH4 cut at -16 m, and BH1 and BH2 cut at -35-36 m. The fact that in general these ruptures are located at different depths indicates the presence of different slip planes."*

Line 171. piezometers originally installed ... sounds better.

REPLY: *corrected as suggested.*

Lines 207, 210. As I mentioned above the steep cliff above the road (at its right side if passing towards Mestia) is a road cut. It seems that the main headscarp is left from the road, where there is a really steep natural slope. Deformations observed at the road (Fig. 3D) are, most likely, secondary features.

REPLY: *we have already replied to the same observation above, with reference to the previous comment regarding lines 113-114.*

Line 264. "development of small sinkholes and fractures within the landslide body". Please indicate where exactly they were found and show on some map.

REPLY: *We have indicated, in the new manuscript version, the location where such features were observed.*

Fig. 10. Sharp one-day peaks of 20-25 m lake level changes are very strange (most likely, some errors) and should be either deleted or need some comments.

REPLY: *We checked again the original file containing the data of the lake level variations, but there are no cases of one-day major variations. A couple of meters at most, but NEVER changes of 20-25 m. Probably, it appears to be like that on the graph, because along the X-axis the dates are reported month-by-month, and are not shown on a day-by-day basis.*

1) All real measurements (extensometers, GPS) are from the upper part of the Khokko landslide. To have more general picture it will be reasonable to suggest to install some inclinometers in the central and lower parts of the landslide (of course, above Lake level). It could be a real output of the Project.

REPLY: *We agree with the reviewer, and we have added a sentence about this at the end of the Conclusions section.*

2) There is a sharp difference between deformations measured at two sites and between their correlation with lake and precipitation. However, lack of other data makes your conclusions on the nature of measured deformations quite speculative. Can't some deformations be caused, for example, by some heavy trucks passing along the road. From my point of view, as I just mention above, in the conclusive section it is logical to propose the development of observation system at this part of the Enguri reservoir rim.

REPLY: *In regard to trucks passing on the road, we have already replied in the previous round of reviews and we added a relevant sentence at Lines 262-267. In regard to suggesting the installment of new instruments, we agree with the reviewer, and we have already suggested this to local and national Georgia authorities; we have also added an appropriate sentence at the end of the Conclusions section.*