Review of manuscript ESSD-2023-61: "ITALICA, an extensive and accurate spatio-temporal catalogue of rainfall-induced landslides in Italy" By: Silvia Peruccacci, Stefano Luigi Gariano, Massimo Melillo, Monica Solimano, Fausto Guzzetti, Maria Teresa Brunetti

Dear Editor and Authors.

Thank you for your valuable and detailed presentation and examination of the ITALICA dataset. I feel this is a good paper that clearly presents the difficulties, resources, and data variability available in compiling such an inventory. The focus of the work is clearly defined, and the steps/methodologies adhered to in order to compile such a dataset are clearly established.

I found the paper to be engaging and comprehensive, with questions arising mostly being answered as the paper progressed. The Figures and Tables all support the text and are positioned well to support the narrative.

I have a few very minor comments that I would like to see addressed to support the paper, most of which appear to fit with the Background section. Please see comments supplied.

I would recommend this paper be accepted for publication with very minor edits.
We really appreciate the positive comments and thank you for the helpful suggestions.

Section 2: Background

Lines 66 – 133 Whilst presenting a good background of inventories, could this section be restructured slightly either as a list or by geographic area. E.g. Italian databases are mentioned at the beginning and the end, Nicaragua in between two Italian databases. May I suggest reviewing this section and formatting along the lines of *Italy > Europe> rest of the world example > Global*.
R: Thanks for the comment. Originally, the background section was organized by listing chronologically the examples of landslide catalogues, inventories, and databases found worldwide. We acknowledge that this organization could be a bit confusing, therefore we agree on the effectiveness of presenting the review following a geographical order. We decided now to start form the global scale, followed by non-European cases, European examples, and finally Italian references. In this way we link the review of the Italian examples with the statements that stress the advantages of ITALICA. The new text of the section is now completely re-arranged.

- I would suggest that the authors review if they are stating examples or offering comparisons of contents.
  R: If we understood the Reviewer request, we stated at line 60: "… a brief review of which is given in this work". In our intention, the brief review reports the main information available from the cited literature. This may possibly imply an indirect comparison of the data by the reader.
- The text should clearly define the time limited databases and those which are still being updated. This is not always well presented.
  We did not report this information since it was not available.
    - L84 Change "included" to "to date includes" – the GB database is being updated constantly and is not a static inventory. It also is different to some of the other databases presented as it includes historic (preglacial) undated landslide event deposits not just present day (hence 17000).
      R: thanks for highlighting this. We modified the text accordingly.
    - L85 Poland details until April 2014 but from when – is this time stamped.
      R: We added the starting date of the mapping project (found in the related reference). We modified the text changing "until April 2014" into "from 2008 to April 2014". Please note that this is period during which the landslides were mapped, not the time window of landslide occurrence.
    - L94 Slovenia – ongoing but from when.
      R: We added this detail in the text.
- Line 84 suggest an edit "with capability to include" – data is only added where it is available although the fields are present as stated in references.
  R: Suggestion accepted, thanks.

Section 4: Data and Models

Table 1 Geographic accuracy, the text is described "as geographic accuracy based on the area which the landslides realistically occurred described as radius from the coordinates" however the examples are presented as area. The approximate radius is mentioned later in the text (L235-239) but it would be helpful to the reader if the radius could also be included in the table along with the area to assist interpretation.
R: Thanks, we added it.

Section 7: Remarks and conclusions

L375 I would suggest the authors consider L375-377 "the catalogue…" should be reordered to the end of the paper as the introduction line to the beginning of the summary for the future of the inventory and follow on work and included in the final paragraph beginning L394.
R: We prefer to keep the phrase where it is, as it refers to the possibility of increasing the spatial homogeneity of the catalogue.

Technical notes:

There are many areas where there are single sentence paragraphs. I strongly suggest these are reviewed and removed.
R: Done.

L30 "catastrophes" change to disasters
R: Done.

L148 "along the length of the peninsula"
R: We prefer to keep the text as it is.

L160 "non- anthropized areas" suggest "areas not subjected to any anthropogenic change".
R: We changed it in "uninhabited areas".

L394 Natural disasters – This can be a controversial term in some current natural hazard/ social science circles. If authors agree I would strongly suggest change to "natural hazards". This is supported in the contact of the sentence.
R: We prefer to keep this term, since it is the term used in the NASA's "Landslide Reporter" project description (https://gpm.nasa.gov/landslides/guides/LandslideReporter_Intro_English.pdf).

L308 Colloquial "on the other hand" should be removed.
R: We substituted it with "In contrast".

L332 Colloquial "on the other hand" should be removed.
R: We substituted it with "About".

L273 Caption for Figure 2 mud flow abbreviation is presented as MD – presented as MF in table 1 and L219 and L268. Please check.
R: Done.

L385 Colloquial "on the other hand" should be removed.
R: We removed it.