

The proposed paper presents a data set containing a rock glacier inventory (RoGI) in the Tibetan Plateau. The vastness of the study area combined with the number of rock glaciers that have been inventoried are the main, but not the only, arguments that make this data set to be of significant importance for the scientific community.

The methodology used to compile the inventory complies with good practices, recommendations and the latest guidelines in rock glacier inventorying as proposed by the Rock Glacier Inventories and Kinematics community (RGIK).

Although, it doesn't use a specific kinematic method (e.g. remote sensing, GNSS), the geomorphological approach in estimating the activity status of RGs is an accepted method by the scientific community.

The performance of the deep learning algorithm varies significantly between subregions, performing poorly in at least five of them, but the manual revise of the deep learning mapping solves this shortcoming.

Thus, the resulting data set is rigorous enough to be considered for publication. As for the manuscript itself, I recommend some minor revisions and clarifications.

Specific comments:

Line 238 – 240

Please explain in more detail how the "Retrieve" operation in the "Manual improvement and independent validation" was performed. Specifically in what areas were the rock glaciers added, as I assume you didn't check the entire study area.

Line 251 – 258

It is not clear if the two reviewers have made changes to the RoGI or if their only purpose was to evaluate the accuracy of the inventory. In other words, a rock glacier that was drawn by the seven mappers and the which was found to be incorrectly identified by the reviewers is still part of the inventory? Please clarify.

Paragraph 6.1.2 Limitations of the deep learning model (lines 408 – 427)

It is important to acknowledge the limits of the model as they are the based on which the model can be improve in the future. And the most important model limitation, in my opinion, is the number of bands that can be used as input data. The use of morphometric data (e.g. slope, terrain roughness) and lithological data might significantly increase the model accuracy. Please consider acknowledging this limitation or have an argument on why this is not a significant limitation.

Table 3 (page 15)

The first two data columns are expressed in the number of rock glaciers, while the following three are expressed as the total areas of rock glacier. If there are rock glaciers that greatly vary in size, then some

metrics (e.g. F1 score) might be influenced by it. Also, tables 4 and 5 are expressed in number of rock glaciers. Please explain why you choose to have this inconsistency or consider revising the figure in order that all the data columns are expressed in the same unit. Consistency is important for accurate assessment and for easy reading.