

Comment on **essd-2021-354**

Anonymous Referee #1

Referee comment on "Spatio-temporal evolution of glacial lakes in the Tibetan Plateau over the past 30 years" by Xiangyang Dou et al., Earth Syst. Sci. Data Discuss., <https://doi.org/10.5194/essd-2021-354-RC1>, 2022

The authors provided a detailed inventory from a large area for a long-time span. Nevertheless, the similarity to the paper Wang et al. (2020) is too high. They discuss the differences/similarities in the chapter Discussion, this is fair. They also applied more accurate data, but according to the comparison with the paper Wang et al. (2020) they did not get significant difference. The paper is well written, appropriate structure, but they just choose wrong topic. The time difference is too close to the previous paper and climate change can not be seen in the results. If I simplify it little bit, they just confirmed that the study from Wang et al. was well elaborated.

The main task for my review was to compare similarities with other papers from this region. I did not provide a standard review, nevertheless one comment I must stress here. What I see as disadvantages of this paper is the limit for "glacial lake" 10 km from a glacier. The wrong idea behind this limit is that "glacial lake" is "glacial" because of its origin (from the glacial action - glacial erosion of valley or glacial accumulation - moraine). It means that the essence of the term is in the origin of the lake, nothing to do with the distance from glacier, source of water in the lake etc.

My suggestion for rejection is mainly because of the wrong selection of the topic. In this version it is hard to identify any novelty and originality, unfortunately.

One solution for future will be to incorporate all glacial lakes into the inventory (as they promised in the title, by the way). The other possibility I see in comparison of different methods of RS inventory, that they can specify the accuracy on the example of the inventory. Other possibility will be wait for significant time difference, that the climate change could be identified.