

## Comment on essd-2022-210

Anonymous Referee #1

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Referee comment on "A 250 m annual alpine grassland AGB dataset over the Qinghai–Tibet Plateau (2000–2019) in China based on in situ measurements, UAV photos, and MODIS data" by Huifang Zhang et al., Earth Syst. Sci. Data Discuss., <https://doi.org/10.5194/essd-2022-210-RC1>, 2022

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This paper introduces the aboveground biomass data of 250 m spatial resolution grassland on the Qinghai-Tibetan Plateau from 2000 to 2019. The data are of great significance for studying the grassland carbon budget, the interaction between grassland vegetation and climate change, and the construction of ecological civilization on the Qinghai-Tibetan Plateau. A few suggestions or comments on the data paper are as follows:

1. Complementing the sources of study region boundary data, the boundary data from different sources are slightly different.
2. The study area of this data article is the Qinghai-Tibetan Plateau in China, and it is suggested that the area outside of China should also be taken into account to calculate the grassland aboveground biomass as a whole.
3. How were Sparse grassland, Alpine grassland, and Alpine meadow classified in Figure 1? What was the basis or source of the classification? Similarly, how was the distribution of grasslands on the Qinghai-Tibetan Plateau determined in this data article? The topography of the Qinghai-Tibetan Plateau is complex, and it is a critical task to determine the extent of the 250-m resolution grassland distribution, which is also related to the use of this data. If the research results of others were used, please give the relevant sources and accuracy.
4. The content and depth of discussion in this data article is far from adequate and it is suggested to be strengthened. Scholars have published a large number of reviews and research results in the field of estimating grassland biomass using remotely sensed data. It is suggested to read carefully to enhance the discussion of this data article.
5. Accuracy evaluation should not only pay attention to R<sup>2</sup> and RMSE, but also pay attention to the relationship between regression line and 1:1 line. In the regression analysis in Figure 6, the relationship between the regression line and the 1:1 line was not discussed, although the authors gave the 1:1 line. It should be noted that the regression line is meaningful only if there is no significant difference between the regression line and the 1:1 line. This information was not given in the paper, and there was a significant lack of accuracy evaluation in the article. This is directly related to the reliability of the regional results.
6. The English of the article is seriously substandard, with problems such as too many grammatical errors, and even some sentences lack obvious sentence components.