Reply to reviewer's comment from Anonymous Referee #1:

Dear Editor and Reviewer,

We want to thank the reviewer for the valuable comments, which helped improve our manuscript. We address all of the reviewer's comments below and describe how the suggested changes have been implemented in the revised version of the manuscript.

Ruqi Yang et al. shows spatial patterns of GPP trends based on multiple datasets including NIRv, satellite-based, and DGVM and found out differences between datasets. I believe this information is useful to study global GPP changes and the uncertainty of each dataset. I have only a few minor comments on this manuscript.

L79 While NIRv is introduced in the abstract, it is needed to describe here again. "Long-term satellite-based near-infrared radiance of vegetation (NIRv)"

Reply: Thank you for your careful review. We have revised accordingly.

L90 Instead of mentioning TRHENDYv6 here, how about simulations from process-based models?

Reply: Thanks for your suggestion. We have modified the "TRENDYv6" to "Process-based models" in the revised manuscript.

L96 I think the explanation of "NIRv" is missing in section 2 (Datasets and methods). I believe the authors need to explain details about NIRv in section 2 (should be 2.1). For example, how this dataset was gained and evaluated in the previous literature.

Reply: Thanks for your comment. We have added the NIRv descriptions in section 2.4.

L248 Can you provide 95% confidence intervals for the trend of global GPP such as 0.37 ± ??? (DGVM ensemble mean)

Reply: Thanks for your suggestion. We have modified the sentence as "the trend of global GPP was about 0.37 ± 0.08 (DGVM ensemble mean ± 95% confidence intervals)".

L403 And -> Also,

Reply: Thanks for your comment. We have modified the "And" to "Also" in the revised manuscript.