

Earth Syst. Dynam. Discuss., referee comment RC1
<https://doi.org/10.5194/esd-2021-69-RC1>, 2021
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Comment on esd-2021-69

Anonymous Referee #1

Referee comment on "Divergent historical GPP trends among state-of-the-art multi-model simulations and satellite-based products" by Ruqi Yang et al., Earth Syst. Dynam. Discuss., <https://doi.org/10.5194/esd-2021-69-RC1>, 2021

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)"

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

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.

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

L403 And -> Also,

