

We thank both reviewers for their positive comments and constructive suggestions. Below we provide our point-by-point replies to the comments (**in bold**).

Referee: 2

Minor comment:

1. Please include the description of the method used to calculate the effective radiative forcing (ERF) in the Data and Methodology section. Since different approaches can lead to varying results (Tang et al., 2019), this information is essential for clarity and reproducibility.

Tang, T., Shindell, D., Faluvegi, G., Myhre, G., Olivié, D., Voulgarakis, A., ... & Smith, C. (2019). Comparison of effective radiative forcing calculations using multiple methods,

Thank you for indicating this. We have added one sentence clarifying the calculation method in the main text (revised manuscript page 5, lines 2-4):

“The effective radiative forcing (ERF) is calculated as the difference in the top of the atmosphere net radiative flux between the SUL×10Asia and baseline fSST simulations (Samset et al. 2016).”