

Responses to Reviewers' Comments:

Dear Dr. Martin Claussen,

Thank you for your appreciation of our manuscript. We acknowledge the anonymous referees for their reviews and constructive comments that contributed to enhancing the quality of this manuscript. After revising the minor suggestions point to point, we submitted our paper to an English-proofing service to improve the English language. We hope that we have dealt with all suggestions adequately.

Thank you for your time and consideration.

Best regards,

Yuheng Li, Kanon Kino, Alexandre Cauquoin, and Oki Taikan

Responses to Reviewer #1's comments:

Reviewer #1 General comments: *The authors have taken into account my main comments and I think that this paper is now a useful contribution to the unfinished discussion about surface feedbacks to the Green Sahara period. The presentation could still be improved in places to improve clarity, and the use of the English language could still be improved in many places - maybe a thorough copy-edit stage might be required (an editorial decision). As a non-native speaker, I have sympathies with the authors in this respect and do not want to impose such additional work on the authors.*

A: Thank you for your suggestion. After correcting the minor points detailed below, we have submitted the paper to an English-proofing service to improve the English language.

Reviewer #1 Comment 1: (hereafter referred to as R1C1, R1C2...) *line 59: What is "predictable water"? Do you mean "precipitable water"? Or simply the simulated precipitation rates?*

A: After checking the reference, the 'predictable water' was corrected into 'precipitation rates'. In Line 91: *'..... but increases the precipitation rates in summer and delays cooling in autumn, thereby extending monsoon.'*

R1C2: *line 179: I'm still not convinced that a r^2 of 0.33 can seriously be qualified as a good model-data agreement. I'd suggest to use "reasonable" instead.*

A: Thank you for your suggestion. It has been corrected in Line 344: *'We found a reasonable model-data agreement, with root mean square error and R-squared values of 0.81 ‰ and 0.33, respectively.'*

R1C3: *line 187: "our results indicate that the MIROC5-iso was hard to reproduce" - strange wording - you mean, the model does not reproduce the northward shift correctly?*

A: Thank you for your suggestion. We corrected it in Lines 352-353: *'.....our results*

suggest that the performance of MIROC5-iso in reproducing the northward shift of the zone with precipitation <1000 mm/y could still be improved,,’

R1C4: *line 280: "Take..." -> "Taking"*

A: Corrected.