

Reply to the editor and reviewers

Editor (Martin Claussen)

Dear authors,

Thank you very much for the careful revision. The reviewers suggest publication 'as is' and 'subject to technical correction'. I would like you to check Figure S6. Is this really the total vegetation cover? If it would be, then there were almost no vegetation in Subsaharan Africa.

Reply: We have corrected Figure S6. Thank you for pointing this out

Anonymous Referee #1

I am very satisfied with revised manuscript, which adequately answers many of the questions I previously asked. However, before publication, the authors still need to modify two minor points, I think.

The first point is in Section 3.4, uncertainties. What uncertainty you are discussing is a bit unclear to me. Do you mean uncertainty of the timing of the termination of the AHP between west and east Africa? Or uncertainty of the magnitude of positive-negative vegetation feedback between west and east Africa? Or is it something else?

Reply: This paragraph is about the uncertainty in spatial vegetation response. Our climate model has a low spatial resolution and does not capture subtle spatial differences in vegetation-climate interactions. This implies that any abrupt change in vegetation that occurs at a regional scale will not be represented in the model, effectively resulting in a smoother response. We have revised the text to clarify this point.

The second point is regarding English writing. This manuscript has good enough scientific content but some English issues. I am not a native English speaker, but I will just point out the problems in Introduction. If you think my point is correct, please correct it. Then, if necessary, please check the other sections.

Line 35. 'present' to 'the present'

Line 37. 'This period is therefore referred to as the African Humid Period (AHP), featured shrub- and grass-covered land surface in Northern Africa, where there is desert today (...).'

Line 46. 'a dramatic desertification' to 'dramatic desertification'

Line 47. 'a slower desertification' to 'slower desertification'

Line 55. 'There were several studies (e.g., ...) that investigated' to 'Several studies (e.g., ...) investigated'

Line 62. '... controversial and only ...' to "... controversial, and only ..."

Line 63. 'the desertification/vegetation-transition is' to 'the desertification/vegetation transition is'

Line 67 and 68. 'so called' to 'so-called'

Line 71. 'collapse as a result of' to 'collapse resulting from'

Line 83. 'surface.' to 'surfaces.'

Line 84. 'the evaporation' to 'evaporation'

Line 89. 'different type' to 'different types'

Line 92. 'vegetated surface' to 'a vegetated surface', 'the vegetated surface', or 'vegetated surfaces'

Line 98. 'in the Holocene (), but with ...' to 'in the Holocene () but with ...'

Line 105. 'to present day' to 'to the present day'

Line 106. 'as a result of vegetation feedbacks' to 'due to vegetation feedbacks'

Line 106. 'doubling of precipitation' to 'doubling precipitation'
Line 107. 'we have performed' to 'we performed'
Line 108. 'a clear warming' to 'clear warming'
Line 121. '(iLOVECLIM) including' to '(iLOVECLIM), including'
Line 124. 'model-dependence' to 'model dependence'
Line 125. 'model-dependency' to 'model dependency'
Line 126. 'by performing ... interglacials, and by applying ...' to 'by performing ... interglacials and by applying ...' or 'by performing ... interglacials and applying ...'
Line 131. 'between both interglacial periods' to 'between interglacial periods'

Reply: We thank the reviewer for suggesting all these textual improvements. We revised the text accordingly.