Review of

An energetic perspective on the impact of the Atlantic Multidecadal Variability on the West African Monsoon

Mohino et al.

General

This is my second review of the this work, in which the authors study the influence of Atlantic Multidecadal Variability (AMV) on the West African Monsoon (WAM) in a suit of simulations. The energetic framework utilized to analyze the relation of AMV and WAM successfully captures this relation, and is consistent with previous work showing that the Saharan Heat Low acts as a mitigating element on the African monsoon. The authors have adequately addressed my comments and I would recommend the paper be accepted. However, I still find that the authors can do a better job of explaining the energetic framework as it applies to regional variations. Some minor comments are provided below.

Comments by line number in the tracked changes pdf

63 AMV on ~~the~~ WAM

75 of ~~the~~ AMV (and elsewhere: the article 'the' is generally not used before acronyms)

229 Here, again, the role of equatorial/tropical NEI, which dictates the amplitude of ITCZ migrations in response to hemispherically asymmetric heating, should not be a-priori ignored (e.g., Shekhar and Boos 2017, Adam et al. 2019)

235-236 You are invoking arguments suited for the zonally averaged circulation, which are not necessarily adequate for regional circulations (cf. Adam et al. 2016b). Instead of 'typically' please explain that the regional Meridional Overturning Circulation (MOC) is consistent with the zonally averaged paradigm, which, in turn, means that sector-mean zonal energy fluxes can be neglected.

340 (Eq. 1)

351 Please provide supporting literature for this claim.

References

Adam, O., Schneider, T., Enzel, Y., & Quade, J., 2019: Both differential and equatorial heating contributed to African monsoon variations during the mid-Holocene. *Earth and Planetary Science Letters*, *522*, 20-29