

Overall evaluation:

Most of my concerns are well addressed in the revised manuscript. However, part of the new added content is verbose, and therefore the language needs to be improved greatly. I think this paper can be considered for publication after the following issues are resolved.

Specific issues:

- [1] Line 59, what is the “Land-Atmosphere interaction region”? Land-Atmosphere interactions happen everywhere on Earth, so how to identify this process? Based on my understanding, I think it should be “Land-Atmosphere interaction hotspot region”.
- [2] Line 65, “while the opposite holds true” maybe not correctly used here.
- [3] The new added content (Line 59-68, 94-108) is very lengthy, please modify the sentences to make the description concise.
- [4] Line 167, CLM3 should be “CLM 3.0”.
- [5] Line 278, the full name of CLDAS should be given when it appears for the first time.