**Response Document**

Thanks for the revised version of "Reconstruction of droughts in India using multiple land surface models (1951-2015) ". The re-revised version has been re-reviewed by two reviewers who recommend acceptance of the manuscript and rejection of the manuscript. However, the reviewer who recommends rejection of the manuscript does not provide specific recommendations and this review is therefore not constructive in my opinion. I reviewed your revised version and found that it is suitable for publication now after handling a series of technical corrections:

Thanks. We have incorporated all the suggestions from the editor.

P1, L7: “the most severe droughts”. Of what? Please specify.

We have modified the sentence.

P2, L14: reformulate: “which point to uncertainty related to model structural error deficits”.

Done

P3, L10: change to: gauge stations.

Done

P3, L14: change to: using the method.

Done

P3, L15: change to: which is based on a temperature lapse rate.

Done

P3, L16: change to: we used a 0.25.

Done

P3, L32: skip “that”, skip ”the”.

Done

P4, L11: change to: “using the Noah model”.

Done

P4, L21: change to: for each LSM.

Done

P4, L23: change to: calibration parameter

Done

P4, L27: skip: “derived”.

Done

P5, L14: change to: “We used the one-dimensional Noah model (…) which solves the

water and energy balance in each grid cell.

Thanks, done.

P5, L16: change to: “(…) the atmospheric resistance coefficient.”

Done

P5, L24; change to: “developed by the Food and Agriculture Organization (..)”

Done

P5, L26: skip “surface downward” (2x).

Done

P5, L27: change to: “was internally disaggregated”.

Done

P5, L28: change to: “and the diurnal cycle (…)”

Done

P5, L28-L30: something is wrong with this sentence.

Done

P6, L2: change to: “CLM is the land surface component of the community-developed global climate system model version 3.0 (…)”

Done

P6, L6-L7: Change to: “The basic difference in CLM from VIC and Noah is that CLM has a representation of groundwater table (…)”.

Done

P6, L8: skip “the”.

Done

P6, L9: Change to: “Land cover used in CLM (…)”

Done

P6, L9: Include long wave radiation.

Done

P7, L6: space missing.

Done

P7, L20: Skip “the”.

Done

P7, L23-L25: Rephrase sentence.

Done

P10, L7: This sentence does not work.

Thanks, we have modified the sentence.

P10, L8: skip “to”.

Done

P10, L29: skip “the” before agricultural drought.

Done

P11, L32: space missing.

Thanks, this is fixed.

P14, L11: change to: “does”.

Done

P14, L13: Replace “about” with “in”.

Done

P14, L14: write “different soil thicknesses in”

Done

P14, L24: Change to: “the multimodal ensemble mean”.

Done

P15, L11: Change to: “The three LSMs (…)”

Done

P15, L13: Change “from” to “calculated by”.

Done

P15, L16: Change to. “are more different between the three LSMs”

Done

P15, L20: Change to: “simulated by the three models”.

Done

P15, L22: Change to: “(…) soil moisture simulations from a larger number of LSMs and

consider other sources (…)”.

Thanks, we have modified that.

Caption Figure 4: Skip “the” before CLM.

Done

Notice also:

- The ESA-CCI product is not reliable before the year 2001. I think that the comparison between 1979 and 2000 is therefore not meaningful.

Thanks. We have mentioned that “the ESA-CCI dataset is more reliable after 2001 (Dorigo et al. 2017)” in the revised manuscript.

- It would have been better if the authors would have explored more on the importance and use of this analysis, in addition to available satellite and in situ measurements.

Thanks, however, our aim to use different in-situ and satellite datasets was to evaluate the models’ performance.