

Reply to Editor Comments on: Sensitivity studies with the Regional Climate Model COSMO-CLM 5.0 over the CORDEX Central Asia Domain

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Dear Editor,

thank you very much for your constructive comments to our manuscript entitled "Sensitivity studies with the Regional Climate Model COSMO-CLM 5.0 over the CORDEX Central Asia Domain". Below we go point by point through your technical corrections, reported in **bold**, detailing how we dealt with them in *italic*.

Thank you for the time and efforts you have put into your comments.

- **There are a few small issues that still need to correct before the paper can be accepted. What comes to Code and data availability, following the editorial guidelines (<https://www.geosci-model-dev.net/12/2215/2019/gmd-12-2215-2019.pdf>) you should make the used data available also either in supplementary material, separate doi or added to zenodo where the plot code is published. So simply having text that data available upon request is not applicable.**

Thank you very much for emphasizing the importance of transparency and reproducibility of scientific results. We now made all the scripts used in the postprocessing of the data and analyses presented in the paper freely available on ZENODO. At the same time, we made available on the same platform all the model configuration files used to run the presented experiments. These include both the files for the model simulations setup, and the ones employed in the COSMO-CLM interpolation routine INT2LM. Finally, we also shared all the model data used for the analyses presented in the paper. The links to all these files have been added to the Code and data availability section of the manuscript.

- **P4, L20: Comma missing from the reference before et al.** *We now modified the citation.*
- **P5, L5: Extra parenthesis around reference year** *We realized that we already referenced the COSMO-CLM in the introduction (P4, L21) and*

consequently decided to remove the previous reference on P5, L5. Additionally, since COSMO-CLM is mentioned even earlier in the introduction, we moved its reference at P3, L25 of the new manuscript version.

- **Remove "from their Web site at <https://www.esrl.noaa.gov/psd/>"**
We now removed the Web site link as suggested by the editor.
- **P9, L17, L25 L27: space between Fig. 4 and Fig. 5 (and on next pages also)** *Following the editor comment, we corrected all similar errors throughout the text.*
- **P9, L29-20: extra spaces in the beginning and end of brackets.**
Corrected.
- **Figure 1: Font quality not the best. Source for the figure not specified.** *We modified the figure and added in the corresponding caption the reference for the GLOBE dataset from where topography information is derived.*
- **Figure 2, 4, 5: Quality not good particularly what comes to fonts.** *Following the editor's comment, we realized that the quality of the previous figures was not optimal. In particular their fonts were highly blurred. We now tried to revise all the paper figures, trying to improve their quality and making all the labels and fonts more readable.*
- **Table 3: No lines in the table.** *We removed the table horizontal lines, as suggested by the editor. Nevertheless, for us is of fundamental importance to keep the different sets of experiments separated, as they are discussed in the paper. For this we inserted an empty line between the different sets of simulations in the new version of the table.*