## Response to Editor decision's comments for manuscript egusphere-2024-3091

General Comment — Both Reviewers are very positive on your submission. Following the edits that you have implemented and your replies to the Reviewer comments, I believe that your manuscript is suitable for publication in Earth System Dynamics. Before final acceptance, I would ask you to confirm whether the schematics in the new Fig. 1 have been taken from existing publications, or whether they have been created specifically for this paper. In the former case, you should explicitly reference the source(s) of the schematics that you used in the figure caption. Also consider whether the figure caption may be made more concise, and part of the information be included only in the main text. Finally, I would suggest editing l. 504 to read only "code availability", since you provide information on data availability in the previous paragraph.

**Reply**: Thank you very much. We confirm that the schematics in the new Fig. 1 have been created specifically for this paper. Thank you for your suggestion about the figure caption. However, we have opted to provide a detailed caption for Figure 1 to allow readers immediate access to essential information directly under the figure. We believe that this approach enhances the immediate understanding of the key components and interactions depicted, without requiring frequent reference to the main text. We believe this improves accessibility and clarity for the readers. Finally, "Code and data availability" has been changed to "code availability"