Referee 2 suggests that the details of the modelling of aerosols, cloud and precipitation in each model should be detailed. I agree that this is probably excessive for an experiment description paper although it would be appropriate to highlight the differences between the models used in the small proof of concept ensemble. What is missing from the manuscript, however, is a basic description of the state of the art of the modelling of these elements in current CMIP models. The introduction in the previous version of the manuscript did include some of this kind of information but it has been removed in response to Referee 1's request to shorten the introduction. Therefore I suggest that a new short section be added to include such an overview.

We have expanded the paragraph beginning 'Firstly, …' on line 84 of the revised manuscript to include a description of the state of the art in CMIP6 models. This reinstates the information removed in response to Referee 1's request, and adds a little more detail about the modelling of aerosol-cloud interactions compared to the previous version of the manuscript.

Important differences between the models in the proof of concept ensemble, likely to affect their aerosol forcing, were added to the Appendix in response to Referee 2's comments.

The SSP database site seems to be functional, but I could not see anything for RAMIP on the input4mips site linked to in the manuscript. Perhaps more instruction on how to obtain the files is required? The concept at GMD is that a scientist with a suitable model should be able to setup and run the experiment independently (ie. without directly contacting the authors of the paper or other members of the RAMIP community).

RAMIP has been designed around the SSPs, which were produced for ScenarioMIP, and the relevant emissions files are listed under ScenarioMIP on the input4mips site. We've added additional instructions for obtaining these files to the data availability statement.