

I would like to thank the authors for addressing the reviewers' comments. Before accepting the manuscript for publication, I encourage the authors to consider the following suggestions.

Line 194: The revised manuscript reports: "It is noteworthy that, as a principal greenhouse gas, CO₂ modifies meteorological parameters—such as radiation, temperature, and precipitation—which in turn influence PM_{2.5} levels. In this comparison, all meteorological changes derive solely from variations in CO₂ emissions, a mechanism fundamentally different from the meteorological influences identified in experiments SIM_{Base} and SIM_{MET=2008}."

Please specify if the sentence "in this comparison" refers to the simulation SIM_{CO₂=2008}

Figure 4. It is not clear if PreG-2008 and PostG-2008 plot are the average of SIM_{base}-SIM_{MET=2008} for the different years. Could you please specify?

Please rephrase "anthropogenic pollution emissions" with "anthropogenic pollutant emissions".

Please correct the following edits:

Line 18: "pollution" is repeated twice

Line 51: The superscript "3" is repeated twice