Review "Influence of covariance of aerosol and meteorology on co-located precipitating and non-precipitating clouds over INdo-Gangetic Plains" Gulistan et al.

Thank you for your thoughtful feedback and for taking the time to engage with our manuscript. We greatly appreciate the effort you've put into reviewing our work. We have carefully reviewed your comments and addressed your concerns, resulting in significant improvements to the manuscript. Below are the replies to the reviewer's comments, and indications of additions, modifications, or subtractions to the text under discussion. We report the reviewer's comments in italic black, our responses in italic green, and the text added to the manuscript in Roman blue.

Referee #1 Comments (Minor Revisions)

I thank the authors for their efforts to change the manuscript. I do not have more comment that I already made. But I would like to highlight two points:

1. Reading reviewer 3's comment #3, I noticed that he also wonders why the analysis focuses only on the stations and not on the whole regions, since the datasets used by the authors do not depend on ground-based measurements. I have already made this comment (comment 5 on my review of 23.02.0224), it is still not clear in the article why the authors focus on specific sites rather than the whole region.

Reply: The authors acknowledge the validity of this concern and are grateful for your persistence in seeking clarity. For clarification in the article the following text is inserted in line no 99 as follows:

Due to the absence of in-situ measurement facilities and the constraints of limited computational resources, the study concentrated on satellite data for specific locations across the entire IGP. These locations were strategically chosen due to their positioning within significant aerosol belts, where the concentration and behavior of aerosols are of particular interest. Therefore, the satellite-based approach was chosen as it provides detailed insights into aerosol dynamics in these critical regions while also benefiting from the broader spatial coverage of satellite data.

2. I am still concerned about the number of data points and wonder if conclusions can be drawn from statistics with less than 50 datapoints, most of the time (as I mentioned in my comment #6 of 23/02/2024). Even if the statistical test gives a result, it does not mean that it is robust. I will specifically point this out to the editor.

Reply: Thank you for your continued feedback and for raising your concerns regarding the sample size. We understand the importance of having enough data points for statistical robustness. However, our study aimed at identifying preliminary trends and patterns that could inform future research. We have also acknowledged this limitation of our study in the 'Conclusion' section in the manuscript and have positioned our findings as a foundation for further, more extensive studies by inserting the following text in line 613:

Although the sample size limits the study, the observed trends offer important insights that provide a foundation for future research. Therefore, further investigations with larger sample sizes are suggested to validate and extend these findings.

We sincerely appreciate the thoughtful and constructive feedback provided by the esteemed reviewer.

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