Authors' Response to Reviewer #2:

Oliviera and co-authors present interesting new data from an important interglacial period that may be analogous to the Holocene. I believe the data is of good quality and the topic is interesting. But I found the writing and figures of the paper to be overly complicated and difficult to follow. I would suggest a major simplification and focusing on key takeaways in both the text and figures so that readers with a wide range of interests can learn something from the paper. As it is currently written, one needs to be an expert in the Indian summer monsoon and MIS 11 to be able to understand the presentation. But in order to reach the goal of demonstrating how this era could be relevant to the Holocene and future warming, the presentation needs to be simplified. I will provide some examples and ideas of how to clarify, mainly focused on figures and nearby text, but please work on the paper as a whole to simplify the message and improve readability.

Overall, I would suggest a focused rewrite and figure updates that highlight key takeaways, but at the same time acknowledges that it is complicated. It's a big win to bring together all of these different data sets, complexity is more exciting to me than a simple answer.

We appreciate the reviewer's constructive comments and positive assessment of our study. We acknowledge that certain parts of the manuscript may be overly detailed, which could make it more challenging for a broader audience to follow. As suggested, we will undertake a focused revision to enhance readability and highlight key takeaways. We will simplify and shorten the text, particularly in Section 4: Results and Discussion, and reduce abbreviations throughout the manuscript while ensuring that the interplay of forcings driving Indian vegetation and summer monsoon variability during MIS 11 is clearly presented. As the reviewer highlights, integrating multiple datasets to analyze these interactions is a key strength of this study. We will ensure that our findings are effectively presented to the broader readership of Climate of the Past.

We will also revise the figures to enhance clarity and readability. Below, we address each suggested change.

Relating to figure 1: The maps as currently presented are confusing. I would recommend breaking this into two separate panels rather than having the Atlantic sites inset. Next, I would add another panel with a figure or table summarizing the preceding text which has a lot of information about rainfall amounts and vegetation type that would be better presented graphically. As suggested, we will revise Figure 1 to enhance clarity, including adjustments to the layout, improvements to the vegetation information and the separation of the Atlantic and Indian regions into two panels.

Relating to figure 2: I know that it is valuable to show the whole pollen diagram, but I would love some additional context and explanation for which taxa are important for the green bands. I see some patterns but its tough to get a cohesive understanding. We acknowledge the need for a clearer representation of the pollen diagram; hence, as recommended, we will revise it for improved readability and interpretation by incorporating a color code and enhancing the graphical visualization of very low-abundance pollen taxa.

Figure 3. The combination of the arrows, the dashed lines, and the shaded bars is a lot to take in. I have a tough time knowing what I am supposed to be looking at in this figure. We will simplify the visual elements to enhance readability and ensure that key patterns are clearly highlighted.

Figure 4. It's a bit tough for me to understand why the highlighted sections are important, but other similar large magnitude changes in the pollen are not interpreted. We understand the reviewer's concern and will clarify the criteria used to identify forest expansion and contraction events, represented by the green and brown bands, respectively, in the figure caption.

Figure 5. The data should be in front of the bars on the graph. As it is currently, the bars obscure the data. To my eye, it's not totally clear that NHSI is the main driver of the dynamics as it seems like the text is saying. The patterns look like they share features of lots of the potential drivers plotted in this figure. We will adjust the figure layout to ensure that the data is displayed in front of the bars for better visibility and to further clarify the contributions of the main forcings to the observed variability.

Finally, we note that Table 1 provides a detailed interpretation of the pollen record, allowing for a more concise presentation of the results in the figures and text.