Clim. Past Discuss.,
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Climate of the Past Discussions

Interactive comment on "The onset of Asian Monsoons: a modelling perspective" *by* Delphine Tardif et al.

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Dear referee,

Thank you for allowing us to go forward in the publication process. We hereby answer to comments and propose a corrected version of the manuscript. You'll find below the answer to the suggested corrections point by point.

Delphine Tardif, on behalf of the co-authors

RC1 : Line 304-305, not only the model bias, but also uncertainties in topography reconstructions, can cause the dry discrepancy in South Asia.

Authors response: We propose the following precision at lines 325-327 : "This could

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be attributed either to a bias towards aridity in these specific regions, that is shared by most models (Valdes et al., 2017) and seems to translate in the Eocene as well, and/or to an inaccurate reconstruction of northern Indian late Eocene topography."

RC1 : Line 462, the number 5 is missing in the caption.

Authors response: Done

RC1 : Line 486, Figure 8 should be replotted. Please check that the purple line does not match with the shaded area in (a). It is better to add the simulated precipitation against with these sedimentological records in the Figure 8, since these records could also reflect dry or wet conditions on the orbital time scale, not only the seasonality.

Authors response: Figure 8 is replotted (see below). We also join the proxies against MAP in Supplementary information, Figure 7 (see below).

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Figure 10: 3W/3D ratio for EOC4X (a) and Control simulation (b). Regions receiving less than 1mm/day are kept blank. Overlaid purple outline corresponds to the value 3W3D=5 considered as minimum value in modern monsoonal regions. We also highlight evaporite (red diamonds) and coal deposits (green circles) from Boucot et al. 2013, as well as the five highlighted regions described in the text.

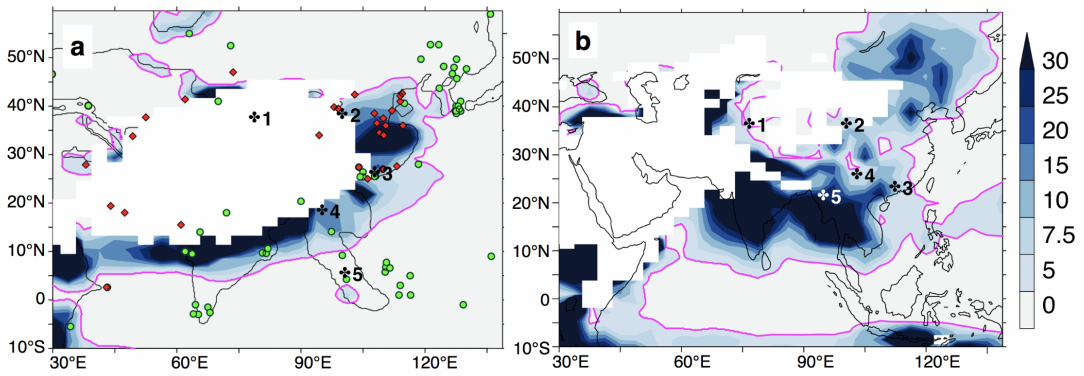

Fig. 1. Figure 8 replotted (Fig 10 in revised manuscript)

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Figure 7 : Late Eocene Mean Annual Precipitations are shaded (in mm/year) and compared to the occurrence of arid climate related evaporites deposits (red diamonds) and more ever-wet climate related coal deposits (green circles).

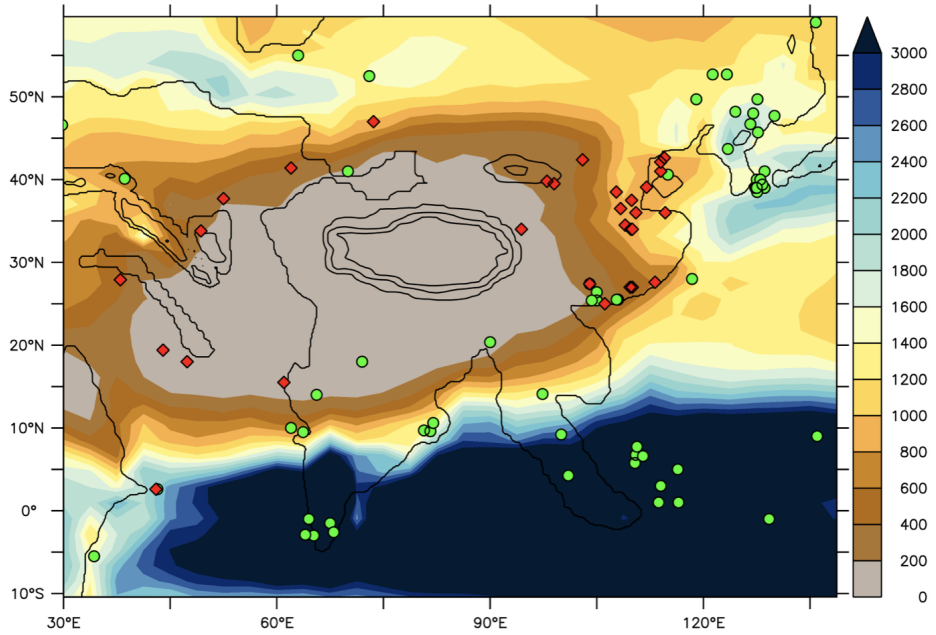

Fig. 2. Supplementary Information, Figure 7

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