

## ***Interactive comment on “On the spatial and temporal variability of ENSO precipitation and drought teleconnection in mainland Southeast Asia” by T. A. Räsänen et al.***

**Anonymous Referee #2**

Received and published: 23 March 2016

It is quite important to understand the linkages between ENSO and regional climates, which can shed lights on projection of future climate changes. This paper used both of the observational and reconstructed data to study the spatial and temporal linkages between them. The results are sound. I agree with publication after major revision.

Major comments: 1 It is very important to highlight the new findings from this study, as you also mentioned that several analyses have been done. For example, there are studies on the seasonal responses ENSO for this area. It is better clearly state the new findings in the Abstract and conclusions. I am feeling that you sometimes try to outline all the results or previous findings, which makes me confusing on the key results and

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your new findings. Please condense your paper and highlight your new findings.

2 This paper has studied the seasonal patterns using the observational data and the long term changes using reconstructions. But the reconstructions do not have seasonal distribution. What are the relationships between the two parts?

Minor comments:

1 There is still room to polish the language to make it clearer. For example, you mentioned “in northern regions in DJF.” It is better than you clearly state which region. You can also condense some sections to make it clearer. For example, for your analyses of the results, there is no need to detailed descript each correlation, it is better to summarize the correlation patterns that make readers to comprehend the changes in response patterns easily.

2 The spatial coverage of Figure 1 and 2 are different. It would be better to make them consistent.

3 Please explain MEI when you first mention it. What is the difference for this index?

4 Page 5317, you write “early 90th century”. It is difficult to say how climate would like then.

5 You also mentioned other proxies sensitive to ENSO, such as the study by Xu et al., why you did not consider these series. It is better to use more than one series to study the relationships with ENSO for the whole southeastern Asia.

6 Page5320, you mentioned “During the development phase of ENSO events in SON(1)” and “During the peaking months of ENSO events in DJF(1)”. Do you mean SON (0) and DJF (0)?

7 The first paragraph of the Discussion section contains many results, which should be merged in the results section. Some of the results can be condensed as this paragraph, which are clearer.

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8 Page5320, it is not good to state "These results point to a need for further research" at the beginning of the Discussion section. Implications for future studies can be shown at the end of the Discussion.

9 Page5321, The moving correlation and wavelet analyses are widely used in paleoclimate studies. I think it is not necessary to highlight these methods.

10 Page5321, "annual dating" should be revised.

11 Page5322, at the end of the page, you mentioned "that allows regional and seasonal comparison", please more detailed write the regional and seasonal comparison. It is very important to indicate the improvements of this paper. It appears to me that you have mainly used two previous reconstructions and season comparisons for the reconstructed data do not appear evident to me. Please indicate your improvements in the Abstract also.

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Interactive comment on Clim. Past Discuss., 11, 5307, 2015.

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