

## ***Interactive Comment* on “An Investigation into the Relationship between Teleconnections and Taiwan’s Streamflow” by Chia-Jeng Chen and Tsung-Yu Lee**

### **Anonymous Referee #1**

Having previously reviewed an earlier draft of this manuscript, it was a pleasure to be able to review it again with the previous reviewer’s comments addressed. While the revised article is not much different to the previous version, it is no longer part of a special issue on seasonal forecasting, and I feel it fits better as an individual contribution to HESS.

In general, this paper offers something novel and interesting to the scientific community, however I do - as before - still have some issues with the way the paper has been written. The language and writing style has not really been addressed since the previous version, and I think it would benefit from being much tighter and succinct in part.

Thank you for your re-review and constructive comments on the writing of the paper. While we have used the language editing service to fix some minor language issue for the previous version of the article, we realize that we have to alter the writing style to make the paper much tighter and less conversational.

In this revision, we will mainly work on the writing part. We wish you will find the revision satisfactory and support the final publication decision.

For example, the beginning of the discussion is overly wordy and a bit conversational. I would suggest it be altered from:

“In this section, further discussion is provided to address the issue of CRS and how it can impact the convention of seasonal forecasting evidenced by some large-scale patterns. To start the discussion, we would like to argue that the two change points found for the response of Taiwan’s streamflow to large-scale circulations are not a coincidence.”

to something like this:

“In this study, we find that the two change points for the response of Taiwan’s streamflow to large-scale circulations are not a coincidence.”

As the discussion moves forward, you could then bring in the issue of CRS and how it can impact seasonal forecasting evidenced by some large-scale patterns. This is just one example, and there are many parts of the manuscript that I believe could be improved along these lines.

We will revise the beginning of the discussion as suggested. As you mentioned, we also find that we can improve many parts of the paper along these lines. As another example, we will alter the beginning of the result section from

*“In line with the aforementioned instruction, the correlation analysis is conducted for all the target gauges in Taiwan. Because the total number of combinations of the different gauges (upstream and downstream), climate indices, and lagged periods is in the thousands, the resulting correlation values are merely too many to be fully listed here. Therefore, the results are presented in a selective and illustrative fashion.”*

to

*“We selectively illustrate the correlation values from the many combinations of the different gauges, climate indices, and lagged periods.”*

As a result, we will make a considerable reduction in word counts (>1500 words).

On the topic of seasonal forecasting itself, this is first introduced at the very end of the introduction (as the authors note the following structure of the paper), but there is no explanation for its inclusion. It is discussed in section 4, but why not before then if this is truly a motivation of the paper? I feel that this is a bit of a hangover from the previous version that was then part of a special issue on seasonal forecasting, but it now feels out of place and perhaps a little bit forced.

Totally agreed. This is truly a hangover from the previous version due to some earlier revisions in response to the special issue.

To accommodate this issue, we will remove the third objective and corresponding sentence from the end of the introduction (as well as in the abstract). We will move Sections 2.4 (Linear regression prediction model) and 3.3 (Variations in prediction skill due to the shifts) and Figure 5 to the supplemental material as an experiment, and briefly mention the experiment at the end of Section 3.2 in case some readers might be interested in seeing how variations in prediction skill can be affected by the CRSs.

In conclusion, I believe this paper to be worthy of publication, but would just like to see it tightened a little before it is published.

Thank you very much again for your positive appraisal of our work. We will make the greatest effort possible to sharpen the writing to meet the publication standard.