Dear reviewer,

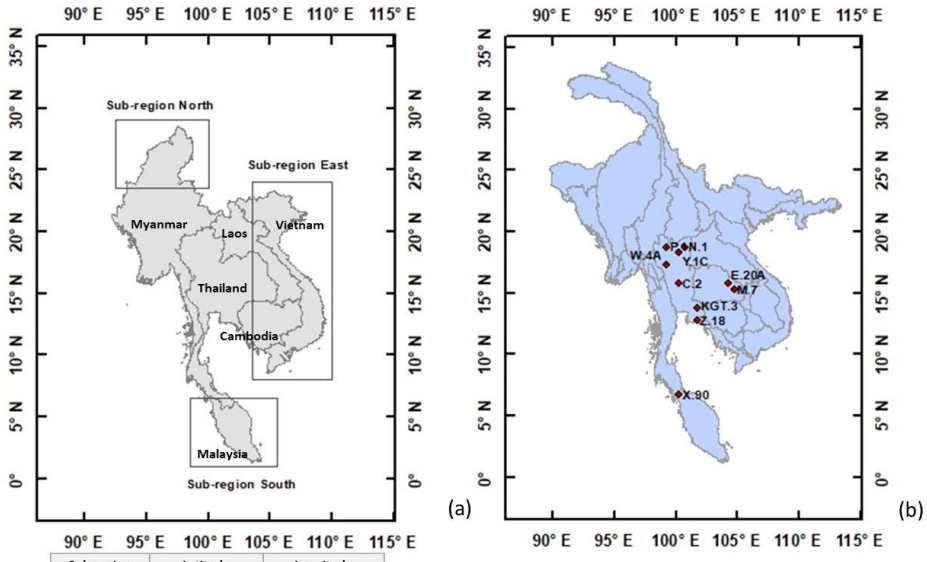
On behalf of my co-authors, we appreciate your attention in our paper and the valuable suggestions that are helpful to enhance our manuscript. You will find below our answer to the reviewers' comments.

Reviewer's comments:

This manuscript described an interesting study on evaluation of the forecast skill of SEAS5 in MSEA. Authors concluded that SEAS5 has high forecast skills during the pre-monsoon (April–May) and post-monsoon (October–November), while poor skill is observed during the rainy monsoon season. The paper was written in good style and logical lines. Please see my following comments:

Detailed information of ten streamflow gauging stations should be listed (Lines 103-105). Which basin or sub-basin are these stations located, what are their relationships in terms of upstream and downstream? Figure1, A undelay basin map may be better compared to the country map, same as following figures.

Thank you for the comment. We will add the basin map to Figure 1 and add further station details in a table in the appendix.



Sub-region	Latitude	Longitude
North	23.5° N - 29.0° N	92.5° E – 100.0° E
East	8.0° N - 24.0° N	103.5° E – 110.0° E
South	1.0° N - 6.5° N	98.5° E – 105.5° E

Please add data availability and data source contents (link for SEAS5, WFDE5, APHRODITE).

We included the references of the driver data in the main manuscript. We will add a data description table (with the data sources) in the Supplement.

Table S2 Data description. Please note, that all data sets have the same native resolution (0.5°)

Data	Version	Acronym	Time period	Data Sources
WATCH Forcing Data	ERA5	WFDE5	1983 - 2014	https://cds.climate.copernicus.eu
ECMWF ensemble forecast	System 5	SEAS5	1985 - 2014	https://www.ecmwf.int
Temperature APHRODITE	1808		1985 - 2014	Asian Precipitation-Highly-Resolved Observational Data Integration Towards Evaluation of Extreme Events http://aphrodite.st.hirosaki-u.ac.jp/index.html
Precipitation APHRODITE	1101		1985 - 1997	
Precipitation APHRODITE	1901		1998 - 2014	

As pointed out by other reviewers, the paper is unnecessarily too long because of displaying too many figures and results that can be moved to the supplementary materials. Please consider shorten the paper.

Thank you for the suggestion. We will improve some figures, others will be moved to the supplement. For example, Figures 4 and 6 shows the skill of WFDE5 and APHRODITE and these two are similar; therefore, we will keep one of these in the main manuscript.

Fig. 3, 5, Each colored line follows the skill of a single forecast. Then which color represent which single forecast? The meaning of legend “Lead m 0/1/2” should be explained.

This is a good point. We realized that Figures 3 and 5 are complicated to understand. We will replace figures 3 and 5 by figures similar to figure 7, and omitting the colored lines.

Figure 4,6,8,9 Please consider transfer the figures to seasonal scale (MAM, JJA, SON), which is consistent with later description. There are too many figures in the main text which lead readers confusing. Fig. 13-15 can also be concise, use supplementary to display the repetitive and similar information.

Thank you for the suggestion. We first analyzed the monthly skill for each lead month because our intention is to analyze at highest temporal resolution rather than aggregated seasonal (as mentioned in lines 125-126). This because there can be sharp transitions in skill/discharge

dynamics that do not necessarily align with default meteorological seasons. For the anomalous year analysis, we decided to aggregate the data to the seasonal scale to study the ENSO events. We agree that there are too many figures in our manuscript. We will improve by moving some figures to the supplement.

For hydrological simulation by VIC, the parameter calibration and model validation processes should be clarified. The influencing factors on stream flow should be discussed, like land use change, dam construction, et al. How these factors influencing the forecast skills of SEAS5, can be discussed. These required a basin-to-basin analysis in MSEA, please authors consider compare the basin variation characteristics, rather than the sub-region analysis in current version.

You made a good point. We agree that there are factors that related to streamflow, such as land use. However, our main focus is climate forecasting and subsequently use the results for streamflow forecasting. We studied different sub-regions because the climate factors influence gridded streamflow differently among these sub-regions. However, when discussing results at station level, a discussion of upstream basin characteristics is definitely relevant, so we will add a few lines accordingly. It is correct that a basin analysis should explain more about the streamflow characteristics, we will pay more explicit attention to this in future research.