

The manuscript describes verification of seasonal drought prediction frameworks using six hydro-meteorological data sets as input. Overall the manuscript is well-written and potentially interesting. However, it still suffers from some drawbacks listed in "specific comments" and "technical corrections".

Specific comments:

- 1- According to my previous recommendations, Brier Skill score used as a metric to evaluate the performance of forecasts of the model. Brier score is introduced by G. W. Brier in 1950 for probabilistic forecasts. Unfortunately, the variables in equation 2 ( $y_k$  and  $o_k$ ) are not fully explained in the manuscript. Theoretically, the forecast probability can adopt any value in [0,1]. However, it seems that they take only values 0 or 1 in your case (dichotomous forecasts). Further explanation is needed. Original (not simplified) formulation of Brier score could be found in:

Batani, M. M., Behmanesh, J., Bazrafshan, J., Rezaie, H., & De Michele, C. (2018). Simple Short-Term Probabilistic Drought Prediction Using Mediterranean Teleconnection Information. *Water Resources Management*, 1-14.

- 2- Further explanation is needed in the manuscript for calculation of Brier score of the reference forecast for the desired time period.

Technical corrections:

- 1- Figs. 11 and 12 are not about RMSE. Please correct the legends of those figures.
- 2- On page 5, line 26: "The numbers in the index name refer" should be changed to "The subscripted numbers"
- 3- Abbreviations like BSS or ROCSS should be defined at first mention and used consistently thereafter. In whole text, "Sect." should be written in its full form.
- 4- Subscripts should be used consistently (not somewhere  $SPI_1$  and elsewhere  $SPI_{01}$ ). Do use italics based on guidelines for the journal to avoid ambiguity.