

## ***Interactive comment on “Assessment of probability distributions and minimum storage draft-rate analysis in the equatorial region” by Hasrul Hazman Hasan et al.***

### **Anonymous Referee #2**

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The manuscript focuses on analyzing streamflow in seven station in the Selangor state (Malaysia). The paper is interesting and presents an acceptable analysis, however, in my opinion there are a few drawbacks in the paper, which can be eliminated by carrying out some major revisions following the list of comments below.

#### **MAJOR PROBLEMS:**

My main concern refers to the trend analysis. First, why the trend analysis has been performed on 5 8-years sub-periods? Then, are the trends statically significant? Recommendation: specify if the trends are statically significant and the confidence level considered. Finally, the authors applied both the MK and the Sen's Slope to evaluate

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the trend sign, but besides the trend sign it could be interesting to detect the trend magnitude. I suggest to apply the Sen's Slope for the evaluation of the slopes of the trends and the Mann–Kendall test for the assessment of the statistical significance.

Which is the influence of the dams on the results of this study?

Can the authors better explain the aims of the paper?

Finally, the author simply describe the results present in the study, and not discuss those results in depth. The authors should try to improve the discussion to underline the added value of their work compared to other similar in the same area and in different areas of the world.

#### **MINOR COMMENTS:**

The English grammar, syntax and punctuation should be improved and I recommend professional proofreading by a native speaker.

Add some references for the Mann-Kendall test, for the Sen's slope estimator and for each distribution of Table 2.

Some references in the text are missing in the references list: Kannan et al. (2018); Sarailidis et al. (2019b). In the references list the latter is a duplicate of Sarailidis et al. (2019a)

A reference in the references list is in the wrong position: Van Loon and Van Lanen (2013)

Figure 1: I think that this figure is not sufficiently informative and it must be greatly improved. Can the authors try to better identify the different sub-basins? Moreover, can the authors show the position of the dams? Finally, it is important to show the localization of the basins within a larger area and to add the coordinates because in this form this figure is hard to understand for a non-Malaysian reader.

Figure 3: please describe what the boxes and the whiskers mean. Which percentiles

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or interquartile ranges are represented?

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