

Comment on nhess-2021-176

Anonymous Referee #5

Referee comment on "Hydrological Drought across Peninsular Malaysia: Implication of drought index" by Hasrul Hazman Hasan et al., Nat. Hazards Earth Syst. Sci. Discuss., <https://doi.org/10.5194/nhess-2021-176-RC5>, 2021

This paper attempts to deal with a very difficult issue which is drought monitoring. The authors used only one index [Streamflow Drought Index (SDI)] for monitoring drought across Peninsular Malaysia.

Response: We are grateful to the reviewer for their time and suggestions in helping to improve the manuscript.

I have many concerns regarding the appropriateness of this manuscript for publication in this high-impact journal and especially in the special issue "Recent advances in drought and water scarcity monitoring, modeling, and forecasting". The specific manuscript was presented with no innovative point of view regarding the advantages in the topic of the SI. The contribution of this research in the literature is very weak and unclear. Specifically, the authors used the well-known SDI drought index and simply discussed the results. The paper seems to be more a technical report than a research paper and this can be obvious concerning the structure and the results of this work. Also, the proposed approach seems to have strong local applicability.

Response: Thank you for your comments. We have revised the manuscript based on your recommendation in Page 1 (lines 11-17 and 24-27), Page 3 (lines 75-84), Page 4 (lines 99-120 and 125-128) and Page 5 (lines 133-134).

The authors should highlight the contribution of their work in regards to the previously published works. Also, the authors should mention extra information about the existence or not of drought early warning systems across Peninsular Malaysia. What about the flash drought monitoring processes in the study area?

Response: Thank you for your comments. We have revised the manuscript based on your recommendation on page 1 (lines 11-17 and 24-27) and page 4 (lines 99-120 and 125-128). The drought monitoring programme in Peninsular Malaysia was launched in early 2001. It was established after the 1998 drought, which affected many residents of Klang Valley. However, drought monitoring in Peninsular Malaysia is based on the percentage deviation from the long-term mean (LTM) of three moving monthly rainfall totals, which serve as indicators of the condition of the catchment. Therefore, this study was conducted to develop a simplified hydrological drought methodology using streamflow data.