

The manuscript titled 'Identification of compound drought and heatwave events on a daily scale and across four seasons' is well-written and discussed. Compound drought and heatwave (CDHW) are highly relevant and critical issues in today's world. I have the following comments on the paper:

Major comments:

- McKee et al., 1993, is a very old reference, now many drought products are based on daily or weekly data, so I think the author's argument that, generally, droughts are identified based on monthly magnitude is not strong enough.
- Regarding the seasonal CDHW, the definition of heat waves and drought needs to be properly adjusted for summer and winter, as they will have different consequences.
- The introduction section needs improvement. Please specify the novelty of the work in the introduction section, as previous studies have already discussed CDHW at daily scale.
- Only one lat/long data record has been analyzed, which needs to be expanded to a bigger area.
- It will be good to compare the impact of all historical CDHW on crop yield and vegetation.

Minor comments:

- Please expand SPI in line 88. Also, give a first-level definition of what is SPI and SHI in words.
- In the moving window, are you taking mean? Then specify that. (line 95).
- It would be helpful if the spatial and temporal extent of the study is defined in section 2.1.