

The authors aim to explore the definition and detection methods of drought-to-flood transitions (DFTs), and emphasizes the limitations of existing threshold-based approaches in detecting such consecutive extreme hydrological events. Using eight case study catchments, authors compare the detection effectiveness of three threshold methods (fixed, seasonal, and dynamic thresholds) for DFT events and verifies the results by referring to media reported disaster events. The topic is interesting and meaningful, but it also has certain limitations. My comments are outlined below.

Major comments

1. Although the title of this manuscript is mentioning "what is a drought-to-flood transition", in the definition of drought-to-flood transitions(2.3.2), I only find the definition of the transition time. There are no restrictions on the duration of droughts and floods. Long - term droughts, short - term droughts, or interrupted droughts have different effects and need clear definitions. Therefore, I suggest that the authors include additional content to address and clarify this point.
2. Figure 6 shows that different threshold methods vary significantly in seasonal catchments, but the mechanism is unclear. I suggest adding how dynamic thresholds suppress or amplify seasonal anomalies.

Minor comments

1. Data. Some cases (Chilean and Italy) have short data periods (under 20 years), which may affect the stability of threshold calculations. This

needs to be clearly stated in the limitations.

2. The "90 days window" for DFT is based on prior studies, yet its applicability across different climate zones (tropical vs. temperate) isn't discussed. It's recommended to add a sensitivity analysis.
3. When identifying DFT events, three different drought threshold approaches were used. The paper mentions "calibration" to ensure these methods detect the same number of drought/flood events, but the specific calibration process isn't explained. It's recommended to add technical details or cite relevant literature.
4. Fig 2. Figure 2b has no label "b".