

Interactive comment on “Space-time variability of soil moisture droughts in the Himalayan region” by Santosh Nepal et al.

Anonymous Referee #2

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The paper deals with soil moisture drought using an drought index. The soil moisture data were derived from model simulation. The results are reasonable. Some specific comments are as follows.

1. The data length is 1980-2007, why the data after 2008 were not used. (2) the model simulated soil moisture was applied to identify soil moisture drought, but does the simulated soil moisture reflect the real soil moisture? Although the hydrological model had a good performance, if there is irrigated area in the study area, does the model consider this condition? (3) The paper analyzed the spatial drought events. I did not see any spatial distribution of the drought events. The authors should show the spatial drought condition using a map. (4) Section 4.2.5, historical incidence of drought. This section should be used to assess the applicability of SMDI. Therefore, it

C1

is better set at the beginning of section 4.2. Moreover, when assessing this index, the onset, duration and termination of the drought should be provided by spatial distribution map. (5) SMDI and SPI were compared and showed some obvious differences. The reasons should be discussed. (6) Discussion is a very important part for a paper, and should be in a separate section.

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C2