

Interactive comment on “Generalized drought assessment in Dongliao river basin based on water resources system” by B. S. Weng et al.

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Received and published: 26 November 2014

Dear Editor,

This paper introduces the Generalized Drought Assessment Index (GDAI) for assessment of drought through the natural-artificial water cycle. This study presents an approach to assess drought using water supply via a hydrologic model, and water demand using regional socio-economic data. For the region under consideration this approach may be of interest given the rapid expansion of population and industrial development in China, as well as increasing temperature trends attributed to climate change.

I believe the comments left previously are valid in that the use of English, acronyms, C2579

and presentation of results can be improved. Specifically, I'd like to discuss a few key points that should be addressed.

1. On line 18-19 (6706) it seems like the three stages that are being referred to correspond to a time period when a certain drought index was developed, however, this is not clear and maybe not necessary.

2. There is a bit of an awkward transition between discussion of all the drought indices and the methodology section. This should be used to emphasize the novelty of the following research and its importance.

3. There needs to be a discussion on why the drought indices used for assessment are selected. The General Drought Assessment Index (GDAI) used in this study appears to be the only one that considers water use, however, it is not clearly stated whether there is any other indices to test that consider this in some way?

4. Comparison of the drought indices can be improved. For example, in Figures 8-9 GDAI is compared with SPI as a time series that is not very distinguishable.

5. It is not clear what drought indices have performed the best and what is the merit in using the GDAI.

Having said this, I believe that the proposed method is interesting and very relevant given the importance of socio-economic factors on available water resources in North-East China.

Interactive comment on Nat. Hazards Earth Syst. Sci. Discuss., 2, 6703, 2014.