

Interactive comment on “Global trend analysis of the MODIS drought severity index” by P. I. Orvos et al.

Anonymous Referee #2

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REVIEW:

Global trend analysis of the MODIS drought severity index P. I. Orvos et al.

This paper addresses the droughts and floods that are extremely difficult issue for modern societies. With the advancing climate change this will be even a more difficult challenge in the future. The authors approach the drought/floods issue by utilizing the compiled an open access data base (Mu et al., 2013) of a remotely sensed global drought severity index (DSI) based on MODIS satellite measurements that cover a continuous period of 12 years. Then the authors present a global trend analysis of the DSI time series in finding statistically significant trends in the data set. They present a sort of methodology to make use of the existing DSI data base, to enhance our

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understanding of the occurrence and severity of the droughts/floods, and this is then in statistical sense.

This approach and work fits into the wide scope of the GI journal, but there are a few major issues that the authors should work on to get this paper published. As to the various minor corrections, I would be willing to see the revised version, and if properly revised, I will turn to the minor corrections. The issues to be worked on are as follows:

A. The observed trends reveal climate variability of the order of 10 years rather than long-term global climate change, as also is mentioned in the paper and discussed in Chapter 3. The possibility that the observed DSI trends are related to decadal modes (as stated in the end of Ch. 3) requires further discussion and support from other investigations. Please expand this section.

B. The methodology description in Ch 2 (data & methods) is far too thin. Please explain more in detail your methods. This part is in the core of this paper when submitted to GI, and hence you should draw a more clear picture of the methodological system (explain) linking the data with your conclusions.

C. The Conclusions section is not ready. The authors should - First tell the objective - summarize what was performed and how - Results in another format than a list of bullets - Recommendations for future work

After these major structural and clarification issues have been performed, the paper may be suitable for publication in the GI journal.

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