

Interactive comment on “Identification of spatiotemporal patterns of biophysical droughts in semi-arid region – a case study of the Karkheh river basin in Iran” by B. Kamali et al.

B. Kamali et al.

bahareh.kamali@eawag.ch

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We are quite surprised with the very strong judgement of the reviewer “a reject outright” given the four questionable comments that can be handled quite easily.

1-The introduction is poorly written. Even if so, there is no need to reject the paper. If reviewer gives a bit more information about the shortcomings, we would gladly accommodate.

2-The model has only been calibrated against runoff. It appears the reviewer did not read about model calibration in the given reference, or did not look at Table 1

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where we report on the calibration against runoff and wheat yield. The reviewer should know that soil moisture data does not exist on such a scale. Remote sensing data is not yet quite suitable to be used in such models. So we did the next best thing and calibrated against crop yield. Crop yield is proportional with actual evapotranspiration. A good simulation of crop yield ensures a good value of evapotranspiration, which in turn increases model confidence on soil moisture. In all of our hydrologic modeling, we systematically calibrate against runoff and crop yield to ensure we have confidence in simulated components of water resources.

3-Study ends in 2004... The fact that the study ends in 2004 does not diminish model results or conclusions in any way. The study period of 24 years was long enough to make meaningful conclusions about the 5 drought events.

4-We made quite a bit of comparisons with other works. If reviewer has a specific reference in mind we would gladly do the comparison. But with such a strong rejection judgement he/she is not giving us a chance to make the paper “stronger”.

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