HESSD

Interactive
comment

Interactive comment on "Quantifying the impacts of human water use and climate variations on recent drying of Lake Urmia basin: the value of different sets of spaceborne and in-situ data for calibrating a hydrological model" *by* Seyed-Mohammad Hosseini-Moghari et al.

Anonymous Referee #2

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It can be considerd as an intresting update in vast literature of Lake Urmia studies while authors tried to use a vast variety of data between 2003 to 2013 to evaluate the situation of Lake Urmia. I think a Major revisions are needed prior to evaluating its technical quality. My comments are listed as bellow

General comments: 1- A technical proof reading is needed since some of the sentences are not understandable 2- Your given figures and tables do not necessarily

indicate to the discussion you have made 3- Relative error in your models is important since figures are dimensionless.Still, given figures seems to have unacceptable errors 4- Methodology should be revised since it is not clear how you evaluated the figures in discussion

Specific comments: 1- You are suggesting that the Lake would have been vanished any way but there are a vast literature against your statement. What is your comments? You should also add sentences in the text about it 2- One of the main factors in your study is the calibration of satelite data and application of filters on data which are main issues. E.g. In GRACE data how did you manage to use 2 degree precision into such a cristal clear results? 3- Why did you use a time length between 2003 to 2013? Since the decreasing trend have already started from late 90's. 4- There are a lot of missing data in historical time series records of the region. How did you manage to remove them? are they satisfactorily acceptable methods to be applied? 5- Page 9, Line 20, Calibration: You have to give the error evaluation if you have used "try and error" method 6-Page 12, Performance criteria, Line 5:These criteria do not show relative error in your models since RMSE number is not necessarily satisfactory 7- Page 13, Figure 7: None of these figures indicate to an acceptable calibration 8- Page 14, Figure 8d: The discrepancy and error is growing in your anomalies. How do you interpret? 9- Page 18-23: Your discussions are too long, yet non of them are visuable from given tables and figures. It is a very long article, yet given informations are narrative and reader should accept your sentences without having a chance to approve it.

Interactive comment on Hydrol. Earth Syst. Sci. Discuss., https://doi.org/10.5194/hess-2018-318, 2018.