

## ***Interactive comment on “Spatio-temporal trends in the hydroclimate of Turkey for the last decades based on two reanalysis datasets” by Mustafa Gokmen***

**Anonymous Referee #4**

Received and published: 23 March 2016

In this manuscript the author studied a regional assessment of the spatiotemporal trends in hydro-climate variables in Turkey by using two sets of reanalysis data. This study is important since it could be useful for impact studies. However, I think the paper requires major revision. There are several points that need to be further addressed. My comments are the following:

1. As the other 3 referees mentioned that, the seasonal and even monthly averages should be investigated by the author to treat also seasonal shift that was indicated by Yucel et al. 2014 (page 12, line 4).
2. Author should provide the map of 249 meteorological stations distributed over the country. The difference between observational and reanalysis data should be inves-

C1

tigated in a more systematic manner. For example, author could have explained the main reason behind the statement that the overall increase of air temperature was relatively higher in the lowlands compared to the high mountainous regions.

3. I suggest that author discuss the result presented in Figure 2a properly, especially for minor region at the very Eastern border of the country. What could be the reason of this result?
4. I think there are problems in figure captions. b) and c) should be interchanged in Figure 4, Figure 6, Figure 7 and Figure 8.
5. Unit of variable (mm) should be indicated in Figure 5.

---

Interactive comment on Hydrol. Earth Syst. Sci. Discuss., doi:10.5194/hess-2016-23, 2016.