

Dear Reviewer 2,

Many thanks for taking the time to read our manuscript and provide helpful feedback. It is very much appreciated.

We have copied your comments below, and responded to them after each comment

Best regards
The Authors.

General Issue

ETCCDI provides a list of 27 indicators, it is not clear why authors have used only the limited subset shown in Table 3. In particular, only one indicator for temperature is not sufficient.

This article presents a selection of ETCCDI indicators that have been carried out as part of a specific research activity. In particular, suitable climatic indicators have been identified, starting from literature studies, to provide information on the danger due to climate change in the following areas: state and availability of the water resource, geological, hydrogeological and hydraulic instability.

A wide part of the manuscript (about seven pages) is devoted to the description of the methods used for completeness and homogenization tests, but these techniques are well established in literature, they can be easily found in books, but also in multimedia channel, e.g:

- <https://www.youtube.com/watch?v=KQsshJ04WxM>
- <https://rdr.io/cran/trend/man/br.test.html>

so, there is no need to describe them in details. They can be only mentioned with their pro and cons, while the full description could be replaced by proper references.

Thanks for the advice, we appreciate that. We already provide to summarize this part of the manuscript trying to avoid prosaic sentences; we simply left a briefly description of the methods and the original references are reported

The analysis of past climate, although formally correct, looks just as a description of numbers, but no scientific interpretation is provided, apart from some prosaic and obvious sentences. Some unusual behaviors have been observed, but no physical interpretation or justification is given.

We briefly added a comparison between the result obtained in this manuscript and the results of other papers already published.

The analysis of future climate projections is pretty modest. The authors do not explain the reason why these two models (cosmo-clm and eurocordex ensemble mean) and these two RCP scenarios have been selected. Also, before performing future analysis, the model must be validated against observational data, in order to assess the capabilities of the models in reproducing the climate features of the area under study. Biases

affecting simulations must be quantified. Finally, a critical analysis of the projections is completely missing, as well as comparison with other available projections (even at lower resolutions) to check their consistency.

The choice of the two models used (cosmo-clm and eurocordex ensemble mean) depends on the fact that both are validated in the literature (see subsections 3.2 and 3.3). Furthermore, the EURO-CORDEX models have been used because thanks to the use of a set of climate models, it is also possible to associate the expected climate changes with an analysis of uncertainty, a very important element for climate adaptation and risk analysis.