

Reply to the Comments made by the editor and the reviewer on the revised version of the manuscript “A review of drought in the African continent: a geospatial and long term perspective” by I. Masih et al. (Manuscript ID C760-765)

The authors are grateful to the editor Dr. Florian Pappenberger and an anonymous reviewer for their evaluation of the revised manuscript. The comments made by the editor and the reviewer are well received and highly appreciated. The manuscript is revised based on the comments. We provide only a clean copy of the manuscript for further evaluation, as the comments were minor and few and we found it impractical to submit also a track changes version. The replies and revisions are briefly described in the following report (directly after the original comments in blue colour).

The Editor's Comments:

Dear authors, you have significantly improved the manuscript. There are a few minor revisions needed (see reviewers comments). In particular could you please clarify the issue regarding the anthropogenic factors as that also was a question I had.

Response: We are thankful to the editor for a positive evaluation of our manuscript. We have addressed all the comments in the revised manuscript including the clarification on anthropogenic factors. By anthropogenic factors, we meant human influence resulting in the climate change, aerosol emissions, land use practices and resulting land-atmosphere feedbacks. The indicated sentence is revised to clarify these points. The new sentence reads as (please see page 12, lines 24-27), "Some of them also focus on anthropogenic factors, such as climate change, aerosol emissions, land use practices and resulting land-atmosphere interactions, contributing to drought inducing mechanisms".

The Reviewer's Comments:

Comments on the revised version of “A review of drought in the African continent: a geospatial and long term perspective” by I. Masih et al.

After reading the corrected version I think that the manuscript was significantly improved. I do thank the authors for the work done. Before final publication a few corrections and clarifications -as suggested below- are still needed.

Response: We are thankful to the reviewer for a positive evaluation of our manuscript. The reviewer's comments, corrections and clarifications are addressed in the revised manuscript. The point by point explanation is given below.

P6 L15-17: The highest spatial and temporal variability of rainfall is found across the countries grouped under West, East and Southern Africa, but mostly have semi-arid climate. Please review the english of this sentence.

Response: The sentence is revised (please see page 6, lines 10-12) as: "The highest spatial and temporal variability of rainfall is found across most of the countries having semi-arid climate within West, East and Southern Africa regions."

P7 L31: What the authors mean regarding that the SPEI is an extension to SPI? SPI and SPEI are different indicators, one depends only on precipitation while the other take into account the difference between precipitation and potential evapotranspiration. Please explain or delete this affirmation.

Response: We agree with the reviewer that SPI and SPEI are two different indicators. In our opinion, SPEI is an updated version of SPI which uses potential evaporation data in addition to precipitation data. In this sense, we meant that SPEI is an extension of SPI. In order to avoid confusion, we agree with the reviewer's suggestion and have deleted the affirmation about SPI as an extension to SPEI (please see page 7, lines 13-15).

P10 L16-19: The sentence: "For instance, number of severe droughts occurred in Northern and Southern Africa during the 20th century are comparable to those observed in Eastern and Western Africa where comparatively more droughts are reported in literature and available data bases"

-should read as:

"For instance, the number of severe droughts that occurred in Northern and Southern Africa during the 20th century are comparable to those observed in Eastern and Western Africa where comparatively more droughts are reported in literature and available data bases"

Response: The sentence is revised as suggested (please see page 9, lines 19-22).

P13 L32: "Some of them also focus on anthropogenic factors responsible for drought..." I'm not sure about the meaning of this affirmation. How and which anthropogenic factors are responsible for droughts? The authors intend about the changes in the frequency and severity of droughts due to climate change or about water scarcity produced by different water uses? Please explain.

Response: By anthropogenic factors, we meant human influence resulting in the climate change, aerosol emissions, land use practices and resulting land-atmosphere feedbacks. The indicated sentence is revised to clarify these points. The new sentence reads as, "Some of them also focus on anthropogenic factors, such as climate change, aerosol emissions, land use practices and resulting land-atmosphere interactions, contributing to drought inducing mechanisms". Please see page 12, lines 24-27.