

## ***Interactive comment on “Long-term variability of droughts in the Czech Lands and largescale climate drivers” by Jiří Mikšovský et al.***

**Anonymous Referee #2**

Received and published: 28 June 2018

### GENERAL COMMENTS:

Manuscript under revision is an approach to study of drought in Czech Republic area, taking in consideration previous climatic reconstructions, already published, using these informations to generate drought indices based on instrumental records. Analysis of possible relations with different forcing factors is also made to offer general or initial explanation to drought mechanisms for this Central Europe study area.

Main effort focused to compare rainfall indices and temperatures for long or complete periods. It's a good first approach to drought phenomena. It open research to study specific events at higher temporal resolution, impacts and responses, etc.

### SPECIFIC COMMENTS

C1

- + Title could include temporal dimension of work of manuscript.
- + Title. Expression "drought" into title is excessively general. A more correct definition of topic developed into manuscript would be "drought indices".
- + Lines 28-30. Seasonal and annual precipitation for 1501-1854 is reconstructed from "document-based precipitation indices". Dobrovoly et al., 2015. Could explain in a short description general characteristics or contents of these "documents"? How was developed previous analysis. Just to have a connection between original information and present results generated into manuscript. IF drought is analyzed, at least public must know about historical documents used for reconstruction, temporal resolution of information obtained, locations or regions with available information, aspects of natural process and/or and human impacts detected/evaluated....etc.... I understand manuscript can have restrictions of extension, but this short overview would be useful for public.
- + Bibliography used on work is complete and well updated.
- + Effort to offer a background or general overview about drought events is not so complete as we would like find. For example, justification of study of drought. It's a present or potential problem for Czech Republic?, any previous strong event justify this study? How they are drought conditions in Czech Republic?
- + Historical dimension of drought is not analyzed. Just index values from previous research considered as approach to climatic patterns related to low values of reconstructed precipitation. Drought is not studied by itself as climatic/historic phenomena. This aspect is not negative nor positive. Just it would require any extension of explanations about drought as climatic phenomena in introduction of work.
- + No specific drought events are mentioned. No description at least for one event is included into manuscript. Complexity of drought events and related impacts is not described/evaluated. May be authors are preparing other papers with these specific

C2

topics?

+ No explanation about drought as climatic phenomena. How is considered drought in Czech Republic, what criteria are applied, what instrumental thresholds, duration/extension/severity, different concepts/definitions of drought, affectation of agriculture.... Any explanation would be useful to understand characteristics and effects for public unknowing these specific details.

+ If drought is defined only from specific indices (SPI, SPEI...), when we work in historical time, out of instrumental data availability, this topic must be taken with more introductory explanations. A more complete and informative approach about how documentary records detect and define droughts, what they record, what transmit....

+ If manuscript is based on previous reconstructions, focused on reconstructed values of mm. rainfall, by total monthly/seasonal/annual resolution, authors must consider they cannot analyze all dimension of droughts. Rainfall indices with positive aspect can cover important drought events, when dry periods are interrupted by strong rainfall events. Knowing what tipe of drought is under study, these singular aspects could be differenced, generating a better and deeper study.

+ Manuscript doesn't show a clear relation of type of documents and type of information rescued and analyzed.

+ It would be interesting focuse efforts on variability and extreme events of the same variable before to compare with variability of others proxys.

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Interactive comment on Clim. Past Discuss., <https://doi.org/10.5194/cp-2018-61>, 2018.