

Interactive comment on “Study On The Driving Mechanism Of Hydrologic Drought In Karst Basin Based On Landform Index: A Case Study of Guizhou, China” by Zhonghua He et al.

Anonymous Referee #2

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The manuscript “Study on the Driving Mechanism of Hydrologic Drought in Karst Basin Based on Landform Index: A Case Study of Guizhou, China,” by He et al., attempts to describe the influences of topographic factors and characteristics of drought (severity, variability) on hydrologic drought in a karst basin of the Guizhou Province in southwest China.

My overall impression of the manuscript is that it is greatly hindered by a lack of clarity and innumerable issues of spelling, tense, punctuation and syntax, to such an extent that it is difficult to evaluate the paper and its potential contribution to the literature. Karst basins are in great need of examination, particularly as it pertains to drought,

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which affects environmental and economic factors, as stated in this manuscript. However, after thoroughly reading and evaluating the manuscript, I suggest that it not be accepted for publication without addressing the language, syntax (incomplete sentences, tense disagreement) and punctuation issues and incoherence of thought. After these changes are made I suggest the authors resubmit as a new manuscript. While such matters are normally minor problems at this stage of the manuscript, the ubiquity of these issues in this case are a great deterrent to understanding the authors' meaning and presenting the ideas of the study and its conclusions. I appreciate the work of the authors and the analysis that they attempt to examine but I do not believe there is enough clarity at this point in the manuscript to determine if it truly is a contribution to field. I regret that this is the case and sincerely hope that a re-examination of the paper will resolve these issues so that it can be reconsidered for publication at another time. Below are some concerns worth mentioning which may improve the manuscript, starting with the problems in language throughout the paper, followed by some general comments, then some line-specific suggestions.

Regarding syntax, spelling, spacing, punctuation and consistency, in general the entire paper must be re-read and corrected for these problems. It would also benefit, in my opinion, from an English translator/editor who may help greatly with syntax. Many problems that were found in the citations and bibliography may be resolved through the bibliography and citation editor or the software used for the references. Almost every in-line and bibliography reference has issues with spacing and capitalization.

Check and resolve inconsistencies with capitalization, for instance, “Karst” vs “karst.” To my knowledge there is not need for capitalization. Refer to “study” rather than “paper.”

The use of italics and quotes is unnecessary in describing, for instance, “3 stages and 4 periods” of the droughts of study between 2000-2010, nor is it necessary or helpful to continue this usage for, say, Section 4.2.2. in which you also use quotes around “severe in the south and light in the north. . .,” “Southwest Guizhou Province,” “Zunyi

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Area," "linear," "logarithmic," etc. Quotation marks such as these trivialize the findings and are greatly overused and distracting throughout the paper. Starting in Section 4.3.2. and continuing in 4.3.3, the subtitles, such as "(1) The driven by landform types" do not make sense in English. These all need to be resolved.

ABSTRACT

You first state that there is no significant impact of landforms on hydrological droughts but you did find that there was a significant impact of high-medium mountains, deep-high hills and high basins on hydrological droughts. This was a clear finding in your study and should be emphasized more in the abstract as well as in your conclusions.

INTRODUCTION

In general, this section would benefit from more clarity and order. It seems very loosely construed with a lot of citations but little coherence, that is, a lot of previous research listed but no real summary of actual findings and what needs to be done (justifying present study).

Line 35 Briefly explain more about differences in meteorological, agricultural, hydrologic and socio-economic drought.

Line 56 Was this in karst? Chalk? STUDY AREAS

Generally speaking, this section may be improved with a stratigraphic summary describing extent of karst, confinement, etc.

Line 106 "developed" karst? Does this mean mature karst development or developed for agriculture?

Line 110 "no heat in the summer?" Leave out the subjective general statements and just list rainfall, temps. . .

Line 111-113 Incomplete sentence. Also, quantify "poor lighting conditions"

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DATA AND METHODS

Line 146-147 Incomplete sentence

Line 155 Unclear what normal value means

Line 180 "some processes?" do you mean analyses?

Line 186 Suggest introducing and describing the divisions of classifications of landforms for this study in the text of the methods as opposed to just in the tables RESULTS AND ANALYSIS Lines 257-259

There are several incomplete sentences here in a row making this incoherent. Line 337 "relative lightly areas of hydrologic droughts" does not make sense

Lines 345-346 Incomplete thought

Line 397 Suggest "denuded" as opposed to "naked"

Section 4.3.3, lines 388-422 requires a lot of corrections for tense, readability, coherence. CONCLUSIONS

Lines 455-458

Again, emphasize your significant findings regarding specific landforms instead of saying you didn't find any then saying you did.

REFERENCES

Needs work on almost every reference for spacing and capitalization in particular.

Interactive comment on Nat. Hazards Earth Syst. Sci. Discuss., <https://doi.org/10.5194/nhess-2018-10>, 2018.

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