

Review Form 3

Journal Name:	Journal of Engineering Research and Reports
Manuscript Number:	Ms_JERR_121270
Title of the Manuscript:	Assessment of Climate Variability Impacts on Water Resources and Agriculture: Insights from Regional Climate Models
Type of the Article	Review Article

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PART 1: Review Comments

Compulsory REVISION comments	Reviewer's comment	Author's Feedback (Please correct the manuscript and highlight that part in the manuscript. It is mandatory that authors should write his/her feedback here)
<p>Please write a few sentences regarding the importance of this manuscript for the scientific community. Why do you like (or dislike) this manuscript? A minimum of 3-4 sentences may be required for this part.</p>	<p style="text-align: center;">Comments to the Author</p> <p>Reviewer Comments on the manuscript titled "Assessment of Climate Variability Impacts on Water Resources and Agriculture: Insights from regional Climate Models" The title is acceptable but needs modification. "Evaluating the Impact of Climate Variability Change on Water Resources and Agriculture considering Regional Climate Models". Large improvements are needed. I would like the author to address my following comments diligently before the manuscript can be considered for publication.</p> <ol style="list-style-type: none"> 1. Please use this methodological approach as much as possible to achieve your objective in the your manuscript <ul style="list-style-type: none"> ➤ Abstract ➤ 1. Introduction ➤ 2. Material and Methods <ul style="list-style-type: none"> ➤ 2.1 Study Area description ➤ 2.2 Data Type <ul style="list-style-type: none"> ➤ 2.2.1 Meteorological data: observed data, including temperature, rainfall, ➤ 2.2.2 Spatial Data : ➤ 2.2.3. Regional climate model (GCM) data) ➤ 2.3 Methods <ul style="list-style-type: none"> ➤ 2.3.1 Observed data quality testing ➤ 2.3.2 Regional climate d data bias correction methods ➤ 2.3.3 Evaluations and Selection of Regional climate mode ➤ 2.3.4 Trend analysis of temperatures and precipitation ➤ 3. Result ➤ 4. Discussion ➤ 5. Conclusion ➤ 6.Reference 2. The abstract needs modification. There are several errors. For example, the recommended years to study historical data for climate change year is not defined. Add numerical abstract for the change of climate variability in the study area? Add a graphical abstract. Add significance of the study in the abstract. Please add the recommendation at the end of abstract. 3. Introduction: Why did you conduct this study? There are several scientific researches on Climate Variability Impacts on Water Resources and Agriculture across the globe. What makes this one unique? 4. The introduction should need modifications. This title is not new, and it was overdone. Therefore, detailed research gap identification, research objectives, 	

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	<p>and the rationale for conducting the study should be considered. It needs major modifications and review</p> <ol style="list-style-type: none">5. The authors used old references more (e.g., Mazur and Milanés 2009); Huffman et al. 2007, (Schmidli and Frei 2005); (Yue, Pilon, and Cavadias 2002); ((Mohd Deni et al. 2008) etc. It showed that the background of the manuscript was not thoroughly reviewed. Please avoid these old references and review your background details. Overall, the introduction section of the manuscript is very shallow, and it needs more modifications based on your title, methods, and findings. This is the major modification6. Please remove literature review, please merge in the introduction part ,because it is not student Final this ,it is article7. What is the difference between climate change and climate variability?8. The study lack your specific study area? please add in the manuscript "Study Area description map"9. The study lack method to achieve your objective? Add the methodological framework clearly?10. The authors explained in detail studies have been conducted in Analysis of Rainfall and Temperature Trends at Watershed Level. Where their study area is in. What is the research gap they are addressing?11. The explanation about the Regional climate models in the data section is too general. It should focus on the models and sources of the data. The rationale of selecting these models can be added. Very few climate models were employed in this study. Why the authors did restrict themselves?12. Fonts in and styles of the tables should be in line with the journal guideline13. Which procedure comes first? RCM evaluation or bias correction and why?14. What is the spatial resolution of RCMs? Is there any downscaling procedure followed?15. How did authors treat serial autocorrelation in the trend analysis?16. Results section: in the manuscript there is no result section for each specific objectives? Please add?17. Discussion part: in the manuscript there is no discussion section for your study result and pervious Researcher result in the same study area? Please add it:18. A methodological flow diagram would enable the readers to follow the article easily. Please develop a single diagram for your study19. Please compare both precipitation and temperature trends of current study with previous study in same region?20. Write down the limitations of the study. If any.21. The selected meteorological data in your specific study area is not defined and listed in table? And add it the body of the manuscript.	
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	<p>22. The authors must clearly describe what types of Bias corrections they used for rainfall or temperatures?</p> <p>23. Furthermore, the similarity index of the manuscript was above 50%. The authors used a lot of journal articles, books, and others, but they didn't cite them as references.</p> <p>24. References: needs more modifications because they used different articles in the body of the manuscript but not cited. This is called Plagiarism.</p> <p>25. The reference style should be consistent throughout the document.</p> <p>26. All references style is add in the body of the manuscript manually. So please use APA Reference style Either Mandelye references type or Endnote Reference type?</p> <p>27. The manuscript lacks any figure interpretation why? And all the figures in the manuscript should be editable</p> <p>28. There is no any methodology and material used why? Please add as much as possible and describe the reason why they selected a certain method. Rewrite it.</p> <p>29. Which method was used by the authors for selecting the Regional climate model?</p> <p>30. The manuscript defined the trend test analysis using mankandal test, but please add the trend test analysis of the station used in the study area in Result section.</p> <p>31. Add climate variability change in temperature and rainfall with graph and table in your study area in Result section and interpreted the result by comparing the pervious study?</p> <p>32. Most tables were not cited in the body.</p> <p>33. I strongly recommended a major revision of the grammar coherences before publication</p>	
<p>Is the title of the article suitable? (If not please suggest an alternative title)</p>		
<p>Is the abstract of the article comprehensive? Do you suggest the addition (or deletion) of some points in this section? Please write your suggestions here.</p>		
<p>Are subsections and structure of the manuscript appropriate?</p>		
<p>Please write a few sentences regarding the scientific correctness of this manuscript. Why do you think that this manuscript is scientifically robust and technically sound? A minimum of 3-4 sentences may be required for this part.</p>		

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Are the references sufficient and recent? If you have suggestions of additional references, please mention them in the review form.		
Minor REVISION comments Is the language/English quality of the article suitable for scholarly communications?		
Optional/General comments		

PART 2:

	Reviewer's comment	Author's comment (if agreed with reviewer, correct the manuscript and highlight that part in the manuscript. It is mandatory that authors should write his/her feedback here)
Are there ethical issues in this manuscript?	<i>(If yes, Kindly please write down the ethical issues here in details)</i>	

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