

**Review Form 3**

Journal Name:	<a href="#">International Journal of Environment and Climate Change</a>
Manuscript Number:	Ms_IJECC_125971
Title of the Manuscript:	<b>Simulate intra-seasonal climatic variability, potential yield and yield gap of sugarcane for south Gujarat region, India</b>
Type of the Article	

## Review Form 3

### 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)
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.	The manuscript titled " <i>Simulate intra-seasonal climatic variability potential yield and yield gap of sugarcane for south Gujarat region India</i> " addresses a relevant issue in agricultural modeling, particularly the impact of climate variability on sugarcane yield. The study utilizes the CANEGRO (DSSAT v4.7) model, which is widely recognized for its accuracy in simulating crop yields under different environmental conditions. The findings provide valuable insights into the yield gap in the South Gujarat region, a critical aspect for improving sugarcane productivity. This work is essential for scientists, farmers, and policymakers aiming to optimize sugarcane yield under variable climatic conditions.	
Is the title of the article suitable? (If not please suggest an alternative title)	The title is suitable, clearly conveying the study's focus. It effectively summarizes the purpose and the scope of the research.	
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.	The abstract is comprehensive, though I recommend emphasizing the implications of the yield gap findings. For example, highlighting how the results could inform better management practices would strengthen the abstract's impact	
Are subsections and structure of the manuscript appropriate?	The structure of the manuscript is well-organized. The sections follow a logical sequence, making the manuscript easy to navigate. However, more subsections within the Results and Discussion would improve clarity, particularly when discussing the effects of temperature and rainfall variability.	
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.	The manuscript is scientifically robust and technically sound. The use of the CANEGRO model is appropriate for the study objectives, and the calibration process described is thorough. The data on temperature and rainfall variability is well-analyzed, showing a clear relationship with sugarcane yield. However, certain aspects could be expanded, such as a more in-depth analysis of management practices that could mitigate the identified yield gaps.	
Are the references sufficient and recent? If you have suggestions of additional references, please mention them in the review form. =	While the manuscript cites studies, more recent references would strengthen it. The manuscript could benefit from including recent works. Here are some suggestions for additional references:  <ol style="list-style-type: none"> <li>1. Tiwari, I., Gupta, B.: Environment and sustainable development. In: Kachhawa, G., Chouhan, B. (eds.) <i>Global Issues: Sustainable Development</i>, pp. 213–222. Sakshi Publishing House, Biodiversity and Human Interference (2023).</li> <li>2. Tiwari, Ishan &amp; Bhojiya, Ali &amp; Prasad, Ram &amp; Porwal, Shalini &amp; Varma, Ajit &amp; Choudhary, Devendra. (2024). Putative Role of Anti-microbial Peptide Recovered from <i>Lactiplantibacillus</i> spp. in Biocontrol Activity. <i>Current Microbiology</i>. 81. 10.1007/s00284-023-03586-5.</li> <li>3. Tiwari, Ishan. (2024). CLIMATE CHANGE AND ITS IMPACT ON PLANT DISEASES AND PESTS IN INDIA.</li> <li>4. Tiwari, Ishan. (2023). THE FUTURE OF SUSTAINABLE AGRICULTURE WITH MICROBIAL SOLUTIONS.</li> <li>5. Tiwari, Ishan. (2023). THE ROLE OF MICROBIAL ECOLOGY IN ENVIRONMENT AND PUBLIC HEALTH. 10.25215/8119070410.</li> </ol>	

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Minor REVISION comments		
Is the language/English quality of the article suitable for scholarly communications?	Yes	
<u>Optional/General</u> comments		

### **PART 2:**

	<b>Reviewer's comment</b>	<b>Author's comment</b> (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>	

### Reviewer Details:

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