

**Review Form 3**

Journal Name:	<a href="#">International Journal of Environment and Climate Change</a>
Manuscript Number:	Ms_IJECC_124010
Title of the Manuscript:	QUANTIFYING SOLAR RADIATION OVER NORTHERN INDIA AND VALIDATING WITH CROPWAT
Type of the Article	

**Review Form 3**

**PART 1: Review Comments**

<b>Compulsory</b> REVISION comments	Reviewer's comment	<b>Author's Feedback</b> (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>The problem addressed is apt in today's context as more stress is being given to using renewable energy. However, the approach used is quite traditional. This manuscript offers significant value to the scientific community, particularly in renewable energy, meteorology, and agriculture, by accurately quantifying solar radiation using weather data. The high agreement between the computed and CROPWAT-estimated solar radiation, with near-perfect statistical indicators, is a strong point that reinforces its reliability. A likable aspect is the meticulous validation process, which makes the findings robust and applicable for future studies. However, a potential drawback could be the regional focus, which may limit its direct applicability to broader geographical areas without further customization.</p>	
<p>Is the title of the article suitable? (If not please suggest an alternative title)</p>	<p>Yes Another option can be "Quantification and Validation of Solar Radiation Using Weather Data and CROPWAT Model for Agricultural and Renewable Energy Applications"</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>Abstract is fine</p>	
<p>Are subsections and structure of the manuscript appropriate?</p>	<p>No, I think a more detailed explanation of the methodology is needed. The authors can further enhance the quality of the manuscript by adding a flow chart of methodology. Also result section needs more discussion. Reference are scanty and may be further increased.</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>	<p>This manuscript is scientifically robust and technically sound due to its comprehensive methodology in quantifying solar radiation using weather data and validating the results with the well-established CROPWAT model. The use of multiple statistical measures, including the Willmot index, Nash-Sutcliffe efficiency, and Pearson correlation coefficient, demonstrates a high level of accuracy in the computed data, with near-perfect agreement between observed and estimated values. The low error margins further validate the precision of the approach. The combination of statistical and visual validation techniques strengthens the reliability of the findings, ensuring that the results are accurate and reproducible.</p>	
<p>Are the references sufficient and recent? If you have suggestions of additional references, please mention them in the review form.</p>	<p>No references section needs to be revived majorly and are not sufficient.</p>	
<p><b>Minor</b> REVISION comments</p> <p>Is the language/English quality of the article suitable for scholarly communications?</p>	<p>No, language too needs to be significantly improvised to enhance the quality of the manuscript.</p>	
<p><b>Optional/General</b> comments</p>	<p>nil</p>	

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**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)
<b>Are there ethical issues in this manuscript?</b>	<i>(If yes, Kindly please write down the ethical issues here in details)</i>	

**Reviewer Details:**

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