

Review Form 3

Journal Name:	Journal of Geography, Environment and Earth Science International
Manuscript Number:	Ms_JGEESI_126162
Title of the Manuscript:	Evaluation of the Suitability of Horticultural Crops Under Prevailing Environmental Conditions - A Case Study of Punjab
Type of the Article	Original Research Article

General guidelines for the Peer Review process:

This journal's peer review policy states that **NO** manuscript should be rejected only on the basis of '**lack of Novelty**', provided the manuscript is scientifically robust and technically sound. To know the complete guidelines for the Peer Review process, reviewers are requested to visit this link:

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PART 1: Review Comments

Compulsory REVISION comments	Reviewer's comment	Author's Feedback <i>(Please correct the manuscript and highlight that part in the manuscript. It is mandatory that authors should write his/her feedback here)</i>
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.	This manuscript is important for the scientific community as it provides a comprehensive assessment of soil-site suitability for horticultural crops, which is crucial for optimizing land use and improving agricultural sustainability. By applying remote sensing and GIS technologies, the study offers a modern and data-driven approach to land evaluation, which can be replicated in other regions with similar agro-environmental conditions. I appreciate the study's focus on multiple crops, as it enhances its practical value for farmers and land-use planners. However, the manuscript could benefit from a stronger emphasis on the broader implications of its findings for global challenges such as food security and climate change, which would further increase its relevance and impact.	
Is the title of the article suitable? (If not please suggest an alternative title)	The current title, "Evaluation of the Suitability of Horticultural Crops Under Prevailing Environmental Conditions - A Case Study of Punjab," is suitable but could be more concise and impactful. It accurately reflects the content of the manuscript, focusing on crop suitability and environmental conditions in Punjab. However, it may benefit from a more precise and engaging structure. Suggested Alternative Title: "Assessing Horticultural Crop Suitability Using Environmental Parameters: A Case Study from Punjab" This version is more direct and emphasizes both the scientific approach (assessment) and the focus on horticultural crops, making it more accessible to the reader while maintaining the key elements of the study.	

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<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>	<ol style="list-style-type: none"> 1. Abstract: The abstract mentions "approximately 45 to 60% study area" being suitable for certain crops. This range is quite broad and using more specific figures (or explaining why there is such variability) would improve the clarity and impact. Suggestion: Provide exact percentages for each crop where applicable. If exact numbers aren't possible, briefly explain the reasons behind the variability, such as the presence of different soil characteristics in different parts of the study area. 2. The abstract could benefit from a statement that highlights the novelty of the research, particularly the multi-crop suitability assessment using modern tools. 3. The abstract ends with a relatively weak conclusion. Strengthen it by linking the findings to practical or policy implications. 	
<p>Are subsections and structure of the manuscript appropriate?</p>	<p>In summary, the overall structure is effective, but minor enhancements, such as separating results and discussion and including a section on limitations, could improve the manuscript.</p> <p>Areas suggest for Improvement:</p> <ol style="list-style-type: none"> 1. Results and Discussion Separation: In the current manuscript, the results and discussion are combined. It might be helpful to separate the Results from the Discussion for a clearer distinction between the presentation of findings and their interpretation. This can enhance the manuscript's scientific rigor. 2. Limitations or Future Work: A subsection on the Limitations of the study or suggestions for Future Research could be added. This would allow the authors to address any gaps and propose areas for further exploration, such as how the methodology can be adapted to other regions or more crops. 3. Visuals and Tables: While the structure of the manuscript is solid, some sections could benefit from additional visuals or tables for better clarity, especially in the results section. Presenting the data in an easily digestible format like summary tables or graphs can improve the readability and accessibility of the findings. 	
<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>The manuscript is scientifically robust and technically sound because it employs well-established methodologies for land suitability assessment, integrating remote sensing and GIS technologies, which are widely accepted tools for spatial analysis in agriculture. The study uses relevant soil parameters (texture, depth, pH, etc.) and climatic data (rainfall, temperature) that are critical for evaluating the suitability of horticultural crops, ensuring the reliability of its results. The data are presented clearly, and the conclusions are well-supported by the findings. Additionally, the use of multiple crops for evaluation makes the study comprehensive, addressing both environmental and economic sustainability. However, incorporating further statistical validation or sensitivity analysis could enhance its robustness.</p>	
<p>Are the references sufficient and recent? If you have suggestions of additional references, please mention them in the review form.</p> <p>⋮</p>	<p>The references in the manuscript are generally sufficient, covering key sources related to land suitability, horticultural crops, and the use of GIS and remote sensing for agricultural planning. However, while many of the references are relevant, some of them are slightly outdated (e.g., references from the 1990s and early 2000s). There are a few recent studies (e.g., 2021 and 2023) included, but the manuscript could benefit from more up-to-date references, particularly in areas such as the impacts of climate change on horticulture and advancements in remote sensing and GIS technologies for agricultural use.</p> <p>Suggestions for Additional References:</p> <ol style="list-style-type: none"> 1. Recent Advances in Remote Sensing for Agriculture: Incorporating more recent studies that use updated GIS or remote sensing technologies, such as higher-resolution satellite imagery or machine learning for land evaluation, could enhance the depth of the discussion. For example, studies from the last 3-5 years on precision agriculture and crop suitability mapping using AI-based models. 2. Climate Change and Horticulture: References that address the potential impacts of climate change on crop suitability would be valuable additions. Given that climate variability can influence soil and water resources, recent literature focusing on how horticulture is adapting to these changes would add a modern perspective to the paper. 3. Policy and Land Use Planning: Adding references that connect the research findings to land-use policies or sustainability strategies would strengthen the practical implications of the study. For example, recent studies on how land-use planning for horticultural crops can align with national sustainability goals or food security targets. 	

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<p>Minor REVISION comments</p> <p>Is the language/English quality of the article suitable for scholarly communications?</p>	<p>The manuscript is mostly clear, but minor grammatical and stylistic revisions would improve its professionalism and readability for an academic audience. A thorough proofread and minor editing could significantly enhance its quality for scholarly publication.</p>	
<p>Optional/General comments</p>	<p>Language and Clarity: The manuscript would benefit from a professional language edit to improve sentence structure, clarity, and grammatical accuracy. This will enhance readability and ensure the work meets the standards of scholarly publications.</p> <p>Visual Enhancements: Consider adding more visual aids such as graphs, flowcharts, or tables to summarize key findings, particularly in the results section. This will help readers quickly grasp the main points and improve the presentation of complex data.</p> <p>Methodological Detail: Expanding on the methodology, particularly the technical aspects of remote sensing and GIS used, would strengthen the paper. Including a brief description of the resolution of the data or the specific software tools used would improve transparency.</p> <p>Future Research and Implications: The conclusion could be strengthened by including a discussion of the study's limitations and potential future research directions. It's important to highlight how this study can be adapted to other regions or climates and how it addresses future challenges like climate change.</p> <p>Practical Recommendations: Including practical recommendations for farmers or land-use planners based on the findings would make the paper more actionable and valuable to practitioners in the field.</p> <p>Based on the overall quality of the manuscript, I would give it a score of 7.5, indicating that major revisions are required. Rationale: 1. Strengths: The study addresses an important issue in agricultural land-use planning and utilizes scientifically sound methodologies, such as remote sensing and GIS, which are appropriate for the research objectives. The content is generally well-organized, and the results are relevant to both researchers and practitioners in the field of agriculture. 2. Areas for Improvement: • The language and structure need significant polishing for clarity and flow. • The manuscript would benefit from more recent references, statistical analysis, and a stronger emphasis on the broader impact of the findings. • The results and discussion sections should ideally be separated for better presentation and scientific rigor. Conclusion: While the manuscript is scientifically sound, these improvements are necessary to enhance its clarity, depth, and overall readability for a scholarly audience.</p>	

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

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