

Review Form 3

Journal Name:	International Journal of Environment and Climate Change
Manuscript Number:	Ms_IJECC_127296
Title of the Manuscript:	Geospatial Analysis of LULC in the Srinagar Region of Jammu and Kashmir using Sentinel-2 data
Type of the 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

<u>Compulsory</u> 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.		
Is the title of the article suitable? (If not please suggest an alternative title)		
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.		
Are subsections and structure of the manuscript appropriate?		
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.		
Are the references sufficient and recent? If you have suggestions of additional references, please mention them in the review form.		

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<p>Minor REVISION comments</p> <p>Is the language/English quality of the article suitable for scholarly communications?</p>		
<p>Optional/General comments</p>	<p>Here is the Comprehensive Review of Manuscript: Geospatial Analysis of LULC in the Srinagar Region of Jammu and Kashmir using Sentinel-2 data</p> <p>General Comments: The manuscript presents a well-structured study on Land Use Land Cover (LULC) mapping in Srinagar, Jammu, and Kashmir using Sentinel-2 data. The research is relevant for the region, given the rapid ecological changes and urbanization challenges. The methodology is thorough, and the conclusions align with the presented data. However, there are areas that could be improved to enhance clarity, scientific rigor, and presentation</p> <p>Abstract:</p> <ul style="list-style-type: none"> - Clearly state the implications of the study for sustainable development in the region. - Expand briefly on the accuracy metrics' significance (e.g., what 89.09% and Kappa 0.88 indicate about the classification quality). <p>Introduction:</p> <ul style="list-style-type: none"> - Strengths: Provides adequate background on LULC and its importance. - Avoid redundancy when defining LULC and its utility. - Strengthen the connection between LULC mapping and specific management practices relevant to the study region. - Include more recent studies or global references to highlight the novelty of the approach using Sentinel-2. <p>Materials and Methods:</p> <ul style="list-style-type: none"> - Strengths: The study design is logical and systematic. - Clarify technical details for preprocessing and image enhancement steps. For example, specify the bands used in the False Color Composite (FCC). - Include brief information about the ground truth data (how sites were selected, limitations in inaccessible areas). - Justify the use of ArcGIS mapping scale 1:30,000—why this scale was chosen and its relevance to the study. <p>Results</p> <p>The LULC classes and their distribution are clearly presented with quantitative data.</p> <ul style="list-style-type: none"> - The LULC map figure referenced (Figure 1) should be more prominent. Ensure the figure is clear, with appropriate color coding and resolution for each LULC class. - Include a discussion on transitions or trends in LULC classes that may have been observed over time, even if not directly measured in this study. - Provide more context for the accuracy results by comparing them with benchmarks from similar studies. <p>Conclusion and Discussion</p> <ul style="list-style-type: none"> - Expand on the implications of findings for policy and decision-making in urban and environmental planning. - Highlight potential limitations of using Sentinel-2 data for specific LULC classes (e.g., wetlands or snow cover detection) due to spectral similarity. - Discuss the potential impact of urbanization on future LULC dynamics in Srinagar. <p>Conclusion</p> <ul style="list-style-type: none"> - Include specific recommendations for policymakers or stakeholders on sustainable land-use planning. - Emphasize how the study can guide conservation or rehabilitation efforts for sensitive zones <p>References</p> <ul style="list-style-type: none"> - Ensure uniform formatting of references (e.g., some entries lack consistent capitalization or punctuation). - Include more recent or regionally relevant studies to strengthen the literature base. <p>Tables And Figures</p> <ul style="list-style-type: none"> - Ensure that all tables are labeled descriptively. For example, Table 1 could include a more descriptive title like "Areal Distribution and Percentage of LULC Classes in Srinagar (2022)." - Figures should be legible in grayscale for printed versions. Include legends with proper scale indicators. 	

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	<p>Technical Language:</p> <ul style="list-style-type: none"> - Revise for grammatical errors (e.g., "wad" instead of "was" in the Results section). - Avoid verbose or redundant phrases (e.g., "the current research which was undertaken" could be simplified to "this study"). - Use consistent terminology (e.g., avoid switching between "wetland" and "wetlands"). <p>Suggested Enhancements:</p> <ol style="list-style-type: none"> 1. Additional Data Layers: Mention or include socio-economic factors or trends to correlate LULC changes with human activities. 2. Temporal Analysis: If feasible, compare 2022 data with previous years to demonstrate trends. 3. Policy Recommendations: Explicitly state how this research can support ongoing initiatives like smart city planning or disaster management. <p>---</p> <p>Summary of Major Revisions:</p> <ol style="list-style-type: none"> 1. Clarify methodological steps and validate their appropriateness for the region. 2. Enhance visual aids (maps, tables) for clarity and impact. 3. Strengthen implications in the discussion and conclusion. 4. Refine technical language and ensure consistent formatting. <p>The manuscript is of good quality and aligns well with the journal's scope. With these revisions, it has the potential to make a significant contribution to LULC studies in ecologically sensitive regions like Srinagar.</p>	
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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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