

Review Form 3

Journal Name:	Journal of Geography, Environment and Earth Science International
Manuscript Number:	Ms_JGEESI_122404
Title of the Manuscript:	Assessment of Change Dynamics of Land Cover and Land Use in Kathmandu Valley of Nepal: A Temporal Analysis Using Arc GIS and Remote Sensing
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

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>
<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>Overall, the manuscript has considerable merits taking into account its practical value. Local studies of this nature are needed to inform decisions and understand changes at national, continental and global scales.</p>	
<p>Is the title of the article suitable? (If not please suggest an alternative title)</p>	<p>-Authors need to ensure brevity in the study's title, in order to coax readers. Kindly consider revising the current title to read as <i>'Spatiotemporal assessment of land use systems in Kathmadu Valley of Nepal using geospatial techniques'</i> or something similar within the frame of 14-17 words. *The current title is not appropriate.</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:</p> <ul style="list-style-type: none"> -Repetitive use of phrases like land use and land cover change, Kathmandu Valley and so on makes reading boring. Some aspects were modified to fine-tune the abstract or ensure flow. *Please refrain from such and ensure brevity, conciseness and precision throughout the manuscript. Corrections here were effected to serve as a guide. -The abstract needs to be well punctuated (i.e., some grammatical defects/syntax errors were identified here and within the main text). -Line 13: Kindly state the specific ArcGIS software/version used for the analysis procedures. -Lines 15-21: Kindly make the main results or findings distinct by using phrases like: Findings indicate...The results demonstrate...and other similar phrases. -The authors can enrich the results section by integrating some quantitative values to show the decline/increment in each class where necessary. -The concluding sentence should briefly highlight the main contribution or relevance of this study to the international scientific community and industrial players. <p>Keywords:</p> <ul style="list-style-type: none"> -Please substitute some of the keywords to include other keywords that give this paper more audience. Likewise, some words that do not appear in the title. 	
<p>Are subsections and structure of the manuscript appropriate?</p>	<p>-Clearly, the structure of the manuscript in its current state is inappropriate. Re-organization or restructuring is required to improve the scientific outlook of this paper.</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>Introduction:</p> <ul style="list-style-type: none"> -The introductory section requires thorough revision. -It is quite unclear what the study's rationale or motivation is. Again, research progress; thus, what is known about the topic from a global or regional perspective, and what's unknown yet important to be studied that currently drive this study's objectives remain unclear. -Tools/approaches used in other jurisdictions must be given to know what is done or opportunities identified in other studies. What drivers or implications were identified in other studies? What gaps or limitations were spotted in other studies that drive this study's literature? -Authors can enrich the theories and literature which anchor the current study by liaising these to some standardized theories, linked to some specific SDGs like SDG 11, 13, 15 and 17. Kindly refer to the 	

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	<p>following studies to revise and improve the introduction, methodology and discussion sections:</p> <ul style="list-style-type: none">* https://doi.org/10.1016/j.landusepol.2024.107261* https://link.springer.com/article/10.1007/s10668-021-01848-5* https://link.springer.com/article/10.1007/s12665-022-10481-y* https://link.springer.com/article/10.1007/s12665-023-10755-z <p>-The last paragraph must clearly highlight the research objectives or questions that the current study attempts to address.</p> <p>-Additionally, the significance of this study's outcome must be integrated in the last or last but one paragraph.</p> <p>Materials and methods:</p> <p>-Study area: Kindly provide a brief justification for the choice of study area. What is unique about this area, and how important is this area to the research community, policy-makers and the citizens of Nepal?</p> <p>Figure 1:</p> <p>-It is quite strange how authors present two different maps and assume readers to spot out the study domain easily. Please link or carve out the study domain from the Land Cover Map of Nepal using a rectangular doodle and arrow to mark the region of interest.</p> <p>-Some of the text and values in Figure 1 are not readable. Authors could increase the fonts of the scale and text in the legend to enhance readability.</p> <p>-Lines 107-130: Kindly update the literature here using current literature as given in the earlier comments or references listed.</p> <p>-It will be more appropriate for authors to visualize the reference/input data, image pre-processing and enhancement procedures, type of classification used, change detection analysis and so on. Hence, a flow diagram needs to be designed.</p> <p>-Authors should consider integrating or tabulating description of the classes or land features used within the context of this study.</p> <p>-If the paths and rows used are consistent, kindly indicate them accordingly.</p> <p>-The methodology section still lacks some key details. Did authors conduct any change detection analysis? If so, what expressions were used in arriving at that?</p> <p>-All equations in the current manuscript must be numbered in an orderly format.</p> <p>-Kindly check the spelling of Total in the equation/expression used in determining the Kappa coefficient.</p> <p>-Lines 134-137: How many fell on the right classes or areas and how many didn't? Authors should not just state the number of points sampled without substantiating these with figures.</p> <p>**The methodology section must be presented in a way that makes it reproducible. Current methodology is not adequate, consistent and appropriate for other readers to reproduce the current study.</p> <p>Results and Discussions</p> <p>-Please separate the discussions from the results section.</p> <p>-For coherence and consistency purposes, the study's results must be presented based on the order of</p>	
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	<p>how the objectives are presented.</p> <ul style="list-style-type: none">-Please ensure results in the tables are not repeated but briefly summarized.-Figures and Tables must be placed close to where they are first mentioned. Hence, I suggest authors re-organize the results section by developing it into sub-sections with corresponding brief description to the results. Mode of presentation for Figure 2 is not acceptable. Since it is year-on-year basis, authors can add the respective year to each figure in figure 2, and increase the font size of the text in each figure.-Kindly remove the axis title header from each image 'Land cover Map of Kathmandu Valley' since there is a caption for the said figure.-All the figures in Fig. 2 can be captured as one figure by reducing the sizes of each figure. Changes in each year could be traced since they have the same legend or description. <p>***Please place them on one layout tap and use just one legend, scale and direction for Figure 2. Increase the fonts of the text in Fig. 2 for readability. Ensure uniformity in other figures as well throughout the manuscript.</p> <ul style="list-style-type: none">-Likewise, Figures 3-Fig.could all be captured in one layout tab since the temporal trend is easy to follow. Maybe, Fig.9 could stand out but Figs. 3-Fig.8 could be on one tap to read as one image.-Fig.9 is more temporal than spatial. What's spatial about Fig.9. Please be mindful of your choice of terms. Again, how come there is no waterbody feature in Fig.9? Why does authors omit riverbed and water body features? Justification/correction/clarification is needed. <p>Discussions:</p> <ul style="list-style-type: none">-Kindly restructure or re-develop this into sub-sections to discuss findings based on the changes; the driving forces by discussing the direct/indirect, spatial and aspatial factors linked to socio-cultural, political, economic and biophysical factors, as well as the consequences/implications.-The discussion section lacks more representative or relevant works. Refer to the studies I listed in the introduction and other ones in Asia or Nepal to improve the discussion section. Authors need to compare findings to existing literature within the study area and across the globe. Does the current study agree or refute existing findings? If not, what makes the current results different?-Authors need to highlight the main events in some specific years under the driving forces sub-section like prolonged dryness, drought, floods, policy directives and so on which probably drove significant changes within the given study period.-Again, hotspot analysis and locational changes must be indicated. Which specific areas within the Valley or in Nepal experienced significant changes and so on. <p>References:</p> <ul style="list-style-type: none">* https://doi.org/10.1016/j.landusepol.2024.107261* https://link.springer.com/article/10.1007/s10668-021-01848-5* https://link.springer.com/article/10.1007/s12665-022-10481-y* https://link.springer.com/article/10.1007/s12665-023-10755-z <p>Conclusions:</p> <ul style="list-style-type: none">-Requires a thorough revision. Kindly begin by a brief introduction or rationale and summarize the main findings in 3-4 bulletins without quoting verbatim what has already been presented in the results/discussion sections.	
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	-What are some of the study limitations or challenges and research opportunities that could drive future studies? I suggest you add a section captioned 'Limitations and future outlook/studies' and a 'Policy implications' sub-section to highlight the practical value of this study's outcomes.	
Are the references sufficient and recent? If you have suggestions of additional references, please mention them in the review form.	References: -Authors need to adhere to the referencing style of the journal. There are several inconsistencies and inaccuracies in the given reference list.	
<u>Minor</u> REVISION comments Is the language/English quality of the article suitable for scholarly communications?	Other comments: -Major grammatical defects and syntax errors were identified throughout the manuscript. I suggest authors seek for the assistance of someone with command over English to improve the proficiency level of the paper.	
<u>Optional/General</u> comments		

PART 2:

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

Reviewer Details:

Name:	Isaac Sarfo
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