

Review Form 3

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| Journal Name: | International Journal of Plant & Soil Science |
| Manuscript Number: | Ms_IJPSS_128169 |
| Title of the Manuscript: | Characterization and Classification of Soils of Jalna District of Marathwada Region by Using Remote Sensing and GIS Techniques |
| Type of the Article | Original Research Article |

PART 1: 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> |
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| Please write a few sentences regarding the importance of this manuscript for the scientific community. A minimum of 3-4 sentences may be required for this part. | This study is significant for the scientific community as it combines traditional soil characterization techniques with advanced remote sensing and GIS technologies. The approach offers a comprehensive understanding of soil distribution and classification in the Jalna district, providing valuable insights for sustainable agricultural planning and land use management in semi-arid regions. The integration of remote sensing and GIS tools highlights the potential of these technologies for large-scale soil resource assessment. | |
| Is the title of the article suitable? (If not please suggest an alternative title) | The title is appropriate and reflects the content of the manuscript. However, a slightly revised version could enhance clarity: Suggested Title: "Characterization and Soil Classification of Jalna District, Marathwada Region, Using Remote Sensing and GIS Techniques." | |
| 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 but could be improved for conciseness and focus. Suggestions: <ul style="list-style-type: none"> Highlight the study's objectives, methodology, and key findings more succinctly. Remove redundant descriptions of soil properties and focus on significant results and implications. Example: <i>This study characterizes and classifies the soils of Jalna district using remote sensing and GIS techniques to identify soil properties and topographic correlations. Findings reveal significant variability in soil depth, texture, pH, and organic carbon content across landforms. These insights can guide sustainable agricultural practices and land use planning in semi-arid regions.</i> | |
| Is the manuscript scientifically, correct? Please write here. | Scientific Soundness The manuscript is scientifically robust and technically sound. The methodology is appropriate, and the results align with the objectives. However, some areas need further clarity: <ul style="list-style-type: none"> Landform Mapping: Provide a brief description of how specific landforms were correlated with soil types. Correlation Results: The relationship between physical and chemical properties could be explained more thoroughly in the discussion section. | |
| Are the references sufficient and recent? If you have suggestions of additional references, please mention them in the review form. | The references are sufficient but could include more recent studies from 2021–2024, particularly on the use of GIS and remote sensing in soil classification. Suggested Additions: <ul style="list-style-type: none"> Studies focusing on the use of DEMs for soil resource mapping. Recent advancements in remote sensing techniques for soil texture and nutrient assessment | |

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| Is the language/English quality of the article suitable for scholarly communications? | The manuscript's language is suitable for scholarly communication but could benefit from minor grammatical revisions and improved sentence structure. For example: <ul style="list-style-type: none">• Original: "The soils were very shallow to very deep (19 to 150 cm), Black (10YR 2/1) to Pale brown (10YR6/3)..."• Revised: "Soil depth varied from very shallow (19 cm) to very deep (150 cm), with colors ranging from Black (10YR 2/1) to Pale Brown (10YR 6/3)." | |
| Optional/General comments | <ul style="list-style-type: none">• Improve the readability of tables and figures by ensuring uniform formatting and proper labeling.• Add a concluding remark in the introduction about the broader applications of this study for policymakers and agriculturists. <p>The manuscript is well-structured and provides valuable insights but requires minor revisions for language quality, conciseness in the abstract, and clearer explanations in the discussion section.</p> | |

PART 2:

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| | Reviewer's comment | Author's comment (if agreed with the 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 detail)</i> | |

Reviewer Details:

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|----------------------------------|-----------------------------------|
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| Department, University & Country | Kafkas University, Turkiye |