Review Form 1.7

Journal Name:	**International Journal of Plant & Soil Science**
Manuscript Number:	**Ms_IJPSS_113742**
Title of the Manuscript:	**Multi-variate Analysis of the Soil Chemical Properties in the Mwea Irrigation Scheme, Kenya and its Implications on Agronomic Management**
Type of the Article	**Original Research Article**

Review Form 1.7

PART 1: Review Comments

	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)*
Compulsory REVISION comments 1. **Is the manuscript important for scientific community?** (Please write few sentences on this manuscript) 2. **Is the title of the article suitable?** (If not please suggest an alternative title) 3. **Is the abstract of the article comprehensive?** 4. **Are subsections and structure of the manuscript appropriate?** 5. **Do you think the manuscript is scientifically correct?** 6. **Are the references sufficient and recent? If you have suggestion of additional references, please mention in the review form.** **(Apart from above mentioned 6 points, reviewers are free to provide additional suggestions/comments)**	Your article provides a thorough analysis of the soil chemical properties within the Mwea Irrigation Scheme in Kenya and its implications for agronomic management, especially for rice production. Here are some suggestions and corrections to enhance the clarity, accuracy, and overall impact of your work: **Title** Consider specifying the type of multivariate analysis in the title for clarity, e.g., "Using Principal Component Analysis to Assess Soil Chemical Properties in the Mwea Irrigation Scheme, Kenya: Implications for Rice Agronomic Management." **Abstract** The abstract concisely summarizes the research but could benefit from mentioning the specific statistical methods used (e.g., principal component analysis) for clarity. It's crucial to briefly mention the main findings and their implications for rice production in the Mwea region to give readers a clearer picture of the study's outcomes. **Introduction** Provide a brief overview of the specific soil chemical properties you studied (e.g., pH, organic carbon) in the introduction to set the context for your research. Consider highlighting the significance of each property in rice production to underscore the importance of your study. **Materials and Methods** When discussing the soil sampling process, consider specifying the depth at which samples were collected, as soil properties can vary significantly with depth. In the statistical analysis section, briefly explain why principal component analysis (PCA) is suitable for your study to help readers unfamiliar with the method understand its relevance. **Results** While the detailed presentation of results is commendable, consider summarizing the key findings in a narrative form to enhance readability before delving into detailed statistics. Incorporate visual aids, such as tables and figures, more effectively by referring to them directly in the text and summarizing their main points. **Discussion** Link the discussion more explicitly to the implications of your findings for agronomic management practices in the Mwea Irrigation Scheme. How can these practices be adjusted based on your study? Discuss the potential limitations of your study, such as the representativeness of the soil samples or the generalizability of the findings to other irrigation schemes or rice-growing regions. **Conclusion** The conclusion should succinctly summarize the main findings, their practical implications, and suggest future research directions to address any gaps identified during the study. **References**	

	Ensure all references are correctly formatted and up to date. Consider including more recent studies to demonstrate the current relevance of your work. **General Suggestions** Consistency in Units: Ensure consistency in the units used throughout the paper, especially when discussing soil chemical properties. Clarity and Conciseness: Aim for clarity and conciseness in your writing to make your paper more accessible to a broad audience, including those who may not be specialists in soil science. Proofreading: Thoroughly proofread the manuscript to correct typographical and grammatical errors, enhancing its overall quality and readability. This feedback aims to strengthen your manuscript by improving its clarity, depth, and scholarly rigor. Implementing these suggestions should make the study's contributions to the field more explicit and accessible to readers.	
Minor REVISION comments 1. **Is language/English quality of the article suitable for scholarly communications?**		
Optional/General comments		

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?	*(If yes, Kindly please write down the ethical issues here in details)*	

Reviewer Details:

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