

Review Form 3

Journal Name:	Asian Soil Research Journal
Manuscript Number:	Ms_ASRJ_125367
Title of the Manuscript:	Enhancing Soil Texture and Bulk Density Mapping Using SOILGRIDS and Machine Learning: A Comparative Analysis with Observed Data.
Type of the Article	

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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>The manuscript is interesting and well written. The topic presented in this manuscript is important and will be of interest to the readers of the journal.</p>	
<p>Is the title of the article suitable? (If not please suggest an alternative title)</p>	<p>yes</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>The abstract demands substantial improvement to bolster its organization and clarity, as it currently lacks explicit objectives crucial for a comprehensive overview of the work.</p>	
<p>Are subsections and structure of the manuscript appropriate?</p>	<p>The literature, it is essential to delve deeper into the existing literature, emphasizing the need for a more discerning perspective to not only identify gaps and limitations but also to scrutinize the methodology and sources used in the reviewed studies</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>A more robust development of the discussion section is warranted to ensure a comprehensive analysis of the findings. The discussion could benefit from a more explicit connection between the results and the existing literature, providing a clearer context for readers. Additionally, the paper would gain from acknowledging potential limitations of the study, addressing alternative interpretations, and exploring avenues for future research. This comprehensive approach would contribute to a more well-rounded and impactful research presentation.</p>	
<p>Are the references sufficient and recent? If you have suggestions of additional references, please mention them in the review form.</p>	<p>yes</p>	

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<p>Minor REVISION comments</p> <p>Is the language/English quality of the article suitable for scholarly communications?</p>	<p>Authors should also review grammar. Some sentences could be worded better</p>	
<p><u>Optional/General</u> comments</p>	<p>Thank you for sending this manuscript to me for reviewing. I checked the manuscript with the title "Enhancing Soil Texture and Bulk Density Mapping Using SOILGRIDS and Machine Learning: A Comparative Analysis with Observed Data". The structure and text of the manuscript are good. Generally, this manuscript will be helpful for readers. But I have few concerns, I hope the authors will solve them in the revised version.</p> <p>Kind regard,</p> <p>-----</p> <p>The manuscript is interesting and well written. The topic presented in this manuscript is important and will be of interest to the readers of the journal. At the same time, I had some comments about the text of the manuscript, namely :</p> <ol style="list-style-type: none">1. Sampling design is one of the main stages of digital soil mapping. but this issue is not mentioned in the text of the manuscript. As presented in Figure 1, they do not seem to follow a particular pattern. In some places there are many study points and in some places there are few.2. It is necessary for the authors to explain how to separate the training and testing data of the model. Is this data the same for all the generated maps? The important point in separating this data is to pay attention to the descriptive statistics of the two categories of data that should be considered.3. In the text of the manuscript, the authors refer to the bulk density measurement method.4. As mentioned in the text of the manuscript, the pixels size of soil grid map is 250 meters. But the pixel size of the generated maps is not mentioned. It is very important how resampling of cell size is done. Is downscaling used or upscaling.5. The authors should point out how they have achieved one data from three depths data of soil grid map. Is the average of the data taken into account?6. It seems that the maps in Figure 6 are not accurate enough. The appearance of the maps shows this. It seems that the covariates used for prediction are not well chosen.7. Authors should also review grammar. Some sentences could be worded better. For example Incorrect use of commas before and, Wrong or missing prepositions or some Unclear	

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	sentences. Thus, I believe that after taking into account the listed remarks, the article on the topic " Enhancing Soil Texture and Bulk Density Mapping Using SOILGRIDS and Machine Learning: A Comparative Analysis with Observed Data" can be published in the Asian Soil Research Journal.	
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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>	

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