

Review Form 3

Journal Name:	International Journal of Plant & Soil Science
Manuscript Number:	Ms_IJPSS_123686
Title of the Manuscript:	Plant available water estimated by using pedotransfer function classes to improve consideration of water stress in agriculture and forestry in Togo
Type of the Article	Original Research 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>
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.	The manuscript is important for the scientific community as it introduces a spatial quantification of soil water availability in Togo, which is important for the country's development, as well as for establishing good practices in irrigation and crop management. Moreover, this type of information can support a diverse range of studies and projects aimed at mitigating climate change.	
Is the title of the article suitable? (If not please suggest an alternative title)	I would prefer a slightly more concise version such as: "Estimating plant-available water using pedotransfer function classes to better address water stress in agriculture and forestry in Togo"	
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. I suggest to use "three-quarters" instead of "3/4".	
Are subsections and structure of the manuscript appropriate?	Yes.	
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.	While the manuscript is relatively simple, the methodology employed appears to be sufficiently adequate for the paper's objectives. That is, the manuscript provides a rough illustration of TAW if Togo' soils, but there is no direct local applicability (as highlighted by the author). In addition, although determining water availability can be a very challenging task in many tropical soils, the author notes that approximately three-quarters of Togo's soils are represented by a single class in the French soil classification system, thereby providing greater confidence in the conclusions obtained.	
Are the references sufficient and recent? If you have suggestions of additional references, please mention them in the review form.	I think the references are recent enough and appropriate for the work.	

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<p>Minor REVISION comments</p> <p>Is the language/English quality of the article suitable for scholarly communications?</p>	<p>Apart from a few typos, the English quality is fine.</p>	
<p><u>Optional/General</u>comments</p>	<p>Use "three-quarters" instead of "3/4" in the abstract.</p> <p>Keywords: "Plant available water" and "pedotransfer function class": Avoid repeating words from the title in the keywords.</p> <p>I really missed the numbered lines. Isn't this a requirement of the journal for submission?</p> <p>Introduction:</p> <p>Change "for a little" to "with only a slight increase".</p> <p>Change "to compensate the" to "compensate for the".</p> <p>The first paragraph is somewhat redundant and could benefit from rephrasing.</p> <p>"Thus, all natural ecosystems, i.e., natural forests and wooded savannahs, would no longer exist by 2100." – This is a strong statement. Is there a reference to support it?</p> <p>Use "leached" instead of "Leachated".</p> <p>Change "This study aims to quantify water availability of Togo soils" to "...the water availability of Togo soils."</p> <p>"With the objective of improving" is somewhat wordy; consider using "to improve" instead.</p> <p>Materials and Methods:</p> <p>Use "French" instead of "french".</p> <p>Change "on the basis of" to "based on".</p> <p>Section 2.2:</p> <p>Change “no Class PTFs has been identified that is specific to sub-African soils” to “No Class PTFs have been identified that are specific to sub-African soils.”</p> <p>"Thus, soil profiles (150 cm deep) were carried out" – I suggest "were excavated" instead.</p> <p>Change "Distinguishe" to "distinguished".</p> <p>Avoid starting sentences with acronyms.</p> <p>"As the AP obtained" – Check for clarity.</p> <p>Ensure consistent usage of acronyms (e.g., change "FPT" to "PTF" at the end of Section 2.2).</p> <p>Figure 1:</p> <p>There is “Ye” instead of “Yes” in the first column of the picture. Please fix it.</p>	

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	<p>Table 1:</p> <p>Improve table formatting.</p> <p>Indicate texture and bulk density (BD) units.</p> <p>Is it necessary to include the ME, PSD, and RMSE formulas?</p> <p>Consider replacing Figure 2 with a general table containing site information (latitude, altitude, etc.) along with profile data (texture, bulk density, and their units).</p> <p>For Table 2: All tables should be independent of the main text, so define ME, PSD, and RMSE in the table caption.</p> <p>Section 2.3:</p> <p>Change "to an elementary" to "to a known".</p> <p>Tables 3 and 4:</p> <p>These might be more suitable as Supporting Information rather than main tables.</p> <p>Results and Discussion:</p> <p>Avoid starting sentences with acronyms whenever possible. Use "Total available water" instead of "TAW". "Therefore, a new soil characterization is necessary, since the only soil data available to date and considered in this study date back about half a century." – This statement could potentially weaken the study's results. Consider emphasizing the current analysis's relevance despite the existing data's age and highlight the need for new soil characterization.</p> <p>Figure 5:</p> <p>Specify the depth of the "upper horizon" in the caption.</p> <p>Conclusion:</p> <p>The phrase "possibility of producing maps" in Togo is obvious, as it is feasible elsewhere. This could be reframed as the initial step toward characterizing water availability at a national scale in Togo. Make sure all these ideas are previously introduced into the text (introduction/discussion). There is a lack of discussion on "plant species distribution and growth" and "climate change scenarios". The discussion is basically focusing on pedological and scale aspects.</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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