

# Review of: "The impact of land use practice on the spatial variability of soil physicochemical Properties at Wondo Genet, Southern Ethiopia"

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Potential competing interests: No potential competing interests to declare.

The article entitled, "The impact of land use practice on the spatial variability of soil physicochemical Properties at Wondo Genet, Southern Ethiopia", is an interesting one and has the potential to get published in the journal. In my view, the following recommendations should be kept in mind by the authors when they will revise the article:

## A. Introduction:

1. It needs to be improved with the addition of some recent references.
2. Page 2/23: "The expansion of agricultural land ... resources conservation systems": In support of this statement, the authors should cite the following recent reference: <https://doi.org/10.3390/agronomy12112766>
3. Page 2/23: "It is a significant nutrient labile pool ... 5% of total nitrogen": In support of this statement, the authors should cite the following recent reference: <https://doi.org/10.3390/agronomy11112190>
4. The last paragraph of the introduction part should contain the research needs/ research gaps.
5. What was the hypothesis? Include a novelty statement in the last paragraph of the introduction part.

## B. Methodology:

1. In the methodology part, there was no mention of the study period (years).
2. What was the statistical design of this study? There should be a separate sub-chapter under the methodology part where the depiction of the statistical analysis will be included.

## C. Results and Discussion:

1. In this section, the authors mentioned that the soil physicochemical characteristics and microbial biomass varied due to various biotic and abiotic variables, what are those variables? Did the authors investigate those or it was a general statement?
2. Page 7/23: "Many soil parameters change ... systems change": In support of this statement, add the following reference in addition to references no, 16, 25, 35: <https://doi.org/10.3390/agronomy11071306>

3. Include the meaning of the vertical lines in the footnote of Figure 2.
4. Page 8/23: "Soil aggregate is a naturally formed ... the soil": Delete this kind of statement which is already well known to all. Describe your results and support them with science.
5. What was 'n' for SE?
6. The authors need to properly describe the variation in the SMBC and SMBN in their studies. In tropical soil where the turnover is rapid, there the role of the vegetation and soil's inherent microbiome is very much important for variation in the SMBC and SMBN. Did the authors find such results?

Overall it is a comprehensive study and well-written manuscript and has the potential to get published after incorporation of the abovementioned suggestions.