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.

In this MS, the authors carried out a series of experiments to study the impact of land use practice on the spatial variability of soil physicochemical Properties at Wondo Genet, Southern Ethiopia, in order to deals with changes that occurred in physical, chemical, and microbiological soil qualities due to different land-use practices. The topic is interesting and novel. And there are three types of land use (including natural forest, plantation forest and agricultural land) with two soil layers at 0–30 and 30-60 cm soil depth, simultaneously there are four types of plantation forest (including Euqlyputus, Podocarpus, Cupressus and Gravillea), and four types of agricultural land (including khat, enset, coffee, and sugarcane). This is a systematic study to investigate the impact of changes in land use and mapping the diversity of landforms for land management. While there are some shortcomings which were following as:

Q1: Abstract: “The result of the present study indicates that the microbial biomass and physicochemical properties of soil are highly correlated with the type of vegetation and soil depths” What about the correlation between the microbial biomass and physicochemical properties of soil and the types of vegetation and soil depths? Correlation analysis should be given in this study.

Q2: 2.3 Soil analysis: These two indexes of microbial biomass C and N were not introduced in details to show the meaning of different parameters (e.g., NF, F, B, Fu or NFu), all these should be noted here.

Q3: 2.3.1. Spatial distribution of soil chemical properties analysis: Just 2.3.1, no 2..3.2 or others were shown here. So delete the subtitle of 2.3.1. And no data analysis methods were given in the M&M.

Q4: 3.1. Soil Physical and chemical properties: What about the meso-, micro- and macro-aggregates of soil (e.g., respective size range etc.)? Give the introduction in the M&M section.

Other comments were directly marked in the PDF file.