

Interactive comment on “Effects of land use changes on the dynamics of selected soil properties in the Northeast Wollega, Ethiopia” by A. Adugna and A. Abegaz

Anonymous Referee #2

Received and published: 4 January 2016

This manuscript studies the effects of land use change on the variation of different soil properties (organic matter content, organic N, pH, available P, CEC and exchangeable cations) in the 0-15 cm layer of forest, grassland and cultivated soils from Northeast Wollega (Ethiopia). In my opinion, authors have carried out a well-designed experiment and made huge efforts to obtain a high number of data. But, in my opinion, the text needs a lot of work before it is ready for publication in SOIL.

These are some general comments about formal aspects:

Abbreviations in the abstract and the main text must be used only after defining. “SOM”, “CEC” or “AP” are used in the abstract without previous definition.

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The use of abbreviations is not rational. There are many examples of this through the text that must be revised. Different expressions are used for the same object even in a short text. In page 1085, lines 4-7 (only four lines!), soil available phosphorus is named as “P” (element), “soil P”, “available P” or “AP” (available P).

Try to avoid 4-5 lines long sentences.

Describing and discussing results following the sequence [i] mean data and [ii] difference between mean data, with different tables is repetitive and makes the text too long. In some cases, even the order of tables is strange (table 2 describes differences between soil properties and table 3 describes soil properties). In some cases, also, discussion of actual data is avoided in favour of variations between data. I would like to seriously highlight this, because variations on sand, silt and clay contents, for example, are described and discussed (see Table 4), but dispersion of original data are not provided and discussion on them is not carried out. What is the relevant thing? Mean differences and standard deviation of differences or mean values and standard deviation of mean values? What is more important? ANOVAs of differences between data or ANOVAs of mean data? I suggest deleting tables 2, 4 and 5 and moving relevant information to Table 3.

I have serious concerns about the validity of most references. There is a huge number of references that do not support the statements they are supposed to. Some examples are discussed in the detailed comments below, but I strongly suggest authors to revise if all citations do actually support the statements in the text. Although there are many evidences, I was surprised when even my own work is cited in order to support a statement that is absolutely not suggested by me. Authors must carry out a serious revision of the text.

Detailed comments are provided separately.

Please also note the supplement to this comment:

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<http://www.soil-discuss.net/2/C663/2016/soild-2-C663-2016-supplement.pdf>

Interactive comment on SOIL Discuss., 2, 1075, 2015.

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