

The authors introduce a theory of anthropedogenesis – soil development under the main factor ‘humankind’ – the 6th factor of soil formation, and deepen it to encompass agropedogenesis as the most important direction of anthropedogenesis. The theory of agropedogenesis is a very important issue in pedology and there is a clear gap in knowledge related to this issue and the outcomes of this research certainly help to better understand the dynamics of soil development under agricultural practices. Although the contents of the manuscript is fairly good, it would benefit from better editing (e.g. grammar and clarity), which would improve its clarity. In addition, some necessary improvements are suggested in the following:

- 1) It is also important to discuss more thoroughly, why these soil properties were selected [Master soil properties]. In particular, a reader would like to know whether these soil properties are intrinsically more important than the others or simply more important on this study due to some identified characteristics and assumptions.
- 2) It is necessary to explain clearly the figures in the main body of manuscript.

Some other comments are made along the text:

Keywords: I think five keywords are enough.

Line 4-5: This first sentence of the abstract should be removed.

Line 48-49: Please clarify this sentence “Since the suitable land resources for agriculture are limited and increasingly located in ecologically marginal conditions”.

Line 50: add cit.

Line 73: run-off irrigation and terracing

Line 80: add cit.

Line 87: “The human factor can even change soil types as defined by classification systems (Supplementary Fig. 1)”. The figure 1 indicate the convergence and divergence of soil properties!

Line 104: add cit.

Table 2: justify Table 2

Line 122: climate, organisms, relief and time

Line 139: climate, organisms and relief

Line 140: “...over time. Thus, morphological soil properties...”. This sentence should be rewrite.

Line 143: Figure 2.

Line 153: add cit.

Line 180: climate, organisms and relief

Line 201: How is possible to infer the decreasing in the spatial variability of soil properties in figure 5.

Line 847: “(c) and (d) total soil carbon”!

Lines 273-lines 299: the definition of phase diagrams would be necessary. Not sure that every Biogeosciences reader is familiar with them.