

# ***Interactive comment on “Agropedogenesis: Humankind as the 6<sup>th</sup> soil-forming factor and attractors of agrogenic soil degradation” by Yakov Kuzyakov and Kazem Zamanian***

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It was a pleasure to read the manuscript. I have some minor remarks, which may improve the strength of the discussion, if considered. Best wishes, Peter Kühn

- We are very thankful to Prof. Kühn for his positive assessment and suggested improvements.

General Remarks Chapters 1.2 and 2.1 In this context the scorpan model by McBratney et al. (2003; “On digital soil mapping”) should be discussed as well, which includes more than five soil forming factors and particularly their functions.

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- The reference McBratney et al. (2003) has been added to the text.

188-190: If the “convergence of soil properties” is not true in all cases, I recommend rephrasing the statement in line 188.

- The sentence has been deleted.

Chapter 2.7 Additionally different topographic positions should be discussed: upslope, Mid-slope, toe-slope and even positions. Do not soil properties diverge or converge despite of human impact just related to the topographic position of the soil? E.g. imagine calcareous substrate with a decalcified soil, at upslope positions and human-induced soil erosion; after some time the soil will have many properties of the substrate, particularly regarding carbonate content, pH, EC, and the content of some elements as e.g. Ca and Mg. These are also master properties of agropedogenesis as you defined in chapter 2.4. - And e.g. in toe-slope positions you have often an additional material input from upslope positions, which influences also some master properties and might rule out convergent tendencies. Of course this is different under humid and arid climate conditions.

- We assumed that agricultural soils are generally located on flat and leveled grounds or on gentle slopes and there would be terracing on steeper slopes. On the other hand, we hypothesized that there will be an equilibrium between the erosion rate and soil genesis rate over long time farming (see supplementary fig. 1).

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