SOIL Discuss.,
https://doi.org/10.5194/soil-2017-40-RC2, 2018

Interactive comment on "No Silver Bullet for Digital Soil Mapping: Country-specific Soil Organic Carbon Estimates across Latin America" *by* Mario Guevara et al.

Anonymous Referee #2

Received and published: 10 March 2018

Manuscript: soil-2017-40

Comments/suggestions:

The manuscript entitled "No Silver Bullet for Digital Soil Mapping: Country-specific Soil Organic Carbon Estimates across Latin America" could be a valuable contribution to the Global SOC Mapping initiative of the UN-FAO, and probably was a result of a collaborative effort among researchers across Latin America. The objectives of the study are clear, and the methods applied are fairly common in digital soil mapping community.

I suggest the authors should consider addressing the following concerns:

1) It would be interesting to see a map showing the geographical distribution of SOC observations in each country. 2) Explain the country-specific pedo-transfer functions that the authors' have developed to address missing bulk density values. 3) Compare and contrast your results with other national/global SOC mapping studies. What added values did your study provide? 4) Include in table the total SOC stocks for each country you've mapped and compare the values with other published SOC estimates. 5) The authors highlighted it as a country-specific effort in mapping SOC in Latin America but when it comes to SOC observations, they only relied on WoSIS database. To me, it is more like top-down rather than a bottom-up approach, as far as the use of national SOC data is concerned. I assume some of the Latin American countries, for example, Chile (Padarian et al., 2017) holds more SOC observations than you've used in your study. Please explain.

Reference

Padarian, J., Minasny, B. and McBratney, A.B. 2017. Chile and the Chilean soil grid: a contribution to GlobalSoilMap. Geoderma Regional 9:17-28.

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