This manuscript is much improved! Well done. Many of my comments are somewhat stylistic, and are just suggestions for further honing the MS before publication. Primarily, I'd love to get more context on why you think manure had this effect, and citing relevant literature to this effect. I'd also like authors to consider including a bit more context on the trajectory of land-use change in the region to contextualize deforestation, and the results presented.

- I think your overall finding in the abstract could still be be a bit clearer and to the point - Overall our findings indicate that SOC in the subsoil… was only impacted by a single type of organic amendment, manure, while other amendments only increased surface SOC. —> Could nest some of the importance of the study in referencing the global importance of the subsoil as a C-reservoir that is under appreciated and that could be impacted by management decisions.

- WC "ever-more" is slightly strange. I understand the point but I think the first line could be streamlined. "Satisfy the food demand of an increasingly demanding and growing population." I also sometimes caution this as the introduction when studies have shown that, calorically, food production is actually sufficient for our current and growing populations, and that food and resource distribution and access are primary forces in solving global hunger.

- Citation would be good for SOC functional properties in 55-57.

- Could streamline introduction of Organic residues by replacing "organic materials" in line 64 with OR to avoid parenthetical.

- Transition to paragraph at line 75 could be smoother. Transition with OR first and then can mention SOC turnover (flip the sentence).

- Replace "its" in line 76 with OR's

- Is t"the amount of SOC" the stock?

- Do you have to use (lignin + Polyphenol) Could this just be defined as normal C:N ratios?

- In general, "SOC content" feels a little vague - could you clarify whether it is concentration, or stocks in the various studies that you refer to throughout.

- The second to last line (Different factors… line 89) feels like it deviates from the setup of your final line. Think through the logical flow of this paragraph a bit more to better articulate the research gap that you are filing - I think this is the need for more research on OR in SSA and tropical systems,

- Transition to 95, maybe add "additionally" to start.

- Not sure where c3, c4 fits in to the picture of the introduction. I think the introduction of 14C for aging soil C is much improved, but I don't think the last line on improving models fits in the intro either… this can be saved for discussion.

- Are nutrient management treatments from Laub 2023b the same as the ones you have? Be clearer, and the third sentence feels repetitive. The other field sites are not relevant either in 2nd sentence.

- Delete "at" in 141.

- I appreciate the effort to maintain figure y-axes in 2, but I wonder if it'd be clearer to have a slightly adjusted y-axis for the right-most plots to maybe may at ~100? and perhaps reconfigure so that the differences can be seen a bit more clearly - not urgent but if possible.

- Re-reference the model number assigned in the methods for the best-fit model in lines 505-506
- Line 515 clunky - re-write. "According to the best-fit model for subsoils, manure and depth were the only significant variables affecting OC stocks" or something.
- Line 521-522 "The effect… on SOC stocks not needed here.
- Omit "the deepest" and shorten - "Manure significantly impacted OC stocks down to 60cm" is more concise
- Unsure of which residue treatment is considered in table 3 - all three?
- "This means that after 38 growing seasons over 19 years, and considering the top 70 cm of the soil, Manure-N, as the most effective treatment to limit SOC losses, could maintain 38.5 ± 8.8 t OC ha-1 more SOC compared to the least efficient treatment, Control+N." A little hard to follow with all the clauses, and also maybe should go into the discussion rather than results
- In the results, you switch to discussion of C/N whereas before you use lignin/polyphenol. I know these are similar concepts but I think uniformity or at least clarifying the transition would be good.
- 617, I might add a "statistically" significant. I think you do a nice job of showing that there are likely effects, but that for greater statistical conidence, you require more samples… It could also be interesting to discuss the impact that this might have on sampling schemes in general… as many deep samples pose significant logistical challenges
- Line 652: it is at the highest end of typical manure application rates, ranging from… Not sure how the following line actually logically relates… on the impact of manure may not be as gratifying when considering non-longterm trials.
- When you discuss the mitigation in losses of SOC, it would be interesting to have you discuss some of the mechanisms that might be at play - while you cannot make definite statements with your study design, I suspect that there could be work that supports certain hypotheses to support your observations with each of your treatments, and in particular with manure. What is it about manure (C/N ratio, something else) that allows It to make such permeating differences relative to the other treatments? I think something to consider, which is not mentioned, is the fact that DOC and leachates from manure may percolate further down than plant-based leachates? Curious to know what you think is at play here in your system.
- Not "very" responsive, rather than "much responsive" in line 708.
- Is there increasing deforestation in the area - its something briefly mentioned as the site condition, but having some sense of the broader context of deforestation in your system may add some nice detail for you concluding thoughts, given that the idea of deforestation and land change only come up in passing once, much earlier in the paper.