Author Responses to Editor Comments

We would like to thank the Executive Editor for the thorough review of our manuscript and suggestions made. On behalf of the authors, I would like to express our gratitude to the thorough review process GC has, and our paper has improved significantly. It has been a long review but enjoyable and memorable experience. We have revised the manuscript based on their suggestions and comments. We reply to each of the comments below. Our changes in the paper are in blue below, and the line numbers and sections refer to the revised manuscript:

| Comment | | Author Comment |
|---------|--|---|
| 1. | Please add Q1 to figure caption for Fig. 5. This way the readers do not have to go back and forth between the figure and the manuscript text. Please do the same for Fig 6-8, and the relevant Tables where you mention any of the four questions. | We have added Q1 to figure caption for Fig 5 and have done the same for all figures and tables. |
| 2. | uncertainty. One possibility would be something like "Communicating uncertainty to soil property map users" or "Communicating uncertainty and its dependence of sampling density to soil property map users" | We thank the editor this and we have shortened the title to "Communicating expected uncertainty of a geostatistical survey to support co-design with users of information" |
| 3. | Line 8 in abstract - a verb is missing. | We have added the verb to Line 8 in the abstract "The first method, the offset correlation, is a measure of the consistency of kriging predictions made from data" |
| 4. | Consider adding more references for the statements made in lines 51-53. The authors state 'previous studies' but include one reference only. | We have made the suggested change on Lines 51—53 "Chagumaira et al. (2021) showed that non-statisticians often find the kriging variance difficult to interpret, and this is consistent with other findings on interpretation of variances by non-specialist (e.g. Konovalova and Pachur, 2021; Weber et al., 2004). It is unlikely that they would find it useful as a measure of the quality of survey output to balance against costs." |

5. Please review EGU policy on inclusivity in global research and where needed edit the manuscript accordingly (e.g., acknowledging all significant contributors including translators, in-country assistants, and external organizations that helped with data collection in Malawi and Ethiopia, etc.) - https://www.geoscience-communication.net/policies/inclusivity_in_global_research.html

We have reviewed the EGU policy on inclusivity in global research and confirm that all collaborators and significant contributors are acknowledged appropriately in the manuscript. This study formed part of my PhD research (https://eprints.nottingham.ac.uk/71710/), which was jointly conducted between the University of Nottingham, Lilongwe University of Agriculture and Natural Resources (LUANAR), and Rothamsted Research. Supervisors from LUANAR are included as coauthors on the paper to reflect their substantial contributions.