

This paper describes a first attempt to synthesise definitions of interventions known from the literature to affect soil organic carbon. The output of this is an openly available database, DATA4C+, which can be accessed online and downloaded. The target end users include researchers and land managers. The objective is to improve consistency in the terms used to describe land management interventions to assist the ease of use of experimental data in e.g. meta-analyses.

The aim is commendable and consistency in definitions and description will undoubtedly aid more powerful analyses of data to be conducted. Since this is a descriptive manuscript rather than experimental, this is reflected in the review.

This work is of scientific value, and as the first attempt of its kind represents a novel contribution. It is well presented and the language is very well written.

It certainly falls within the scope of the journal and should be of broad international interest and therefore warrants consideration for publication.

There are a few points I would like to address to the authors:

1. How was the initial literature search conducted? There is information regarding how certain definitions were excluded, but not how papers were searched in the first instance.

Thank you for your comment. The literature search was conducted based on expert knowledge and not systematic review. Therefore a first list of meta-analyses was established by the authors. This list is available in Table 1. Focus was put on meta-analyses as homogeneous definitions are a pre-requisite to conduct such analyses. Besides, the list of definitions gathered from the meta-analyses was completed by definitions coming from glossaries (e.g. IPCC) and existing thesaurus (e.g. Agrovoc), which are hardly referenced in search engines like Scopus, Web of Science or Google Scholar. Finally, this list of definitions was extensively discussed among the group of authors resulting in the selection of other definitions than the initial ones and inclusion of new definitions.

2. I am not sure what value Table 1 gives? I don't think I understand it (my fault, probably) but think it needs explaining in more detail or excluding.

We do agree with your comment. Therefore, the current Table 1 will be inserted as supplementary material in the revised version of the manuscript.

3. Was there a quantitative method for 'testing' the thesaurus? It seems that there were discussions around it but perhaps there was a more structured way of testing the definitions. Can this be explained further?

Thank you for your question. In this work we did not quantitatively test the thesaurus. We would be more than happy to discuss this point with you to find a way to do so ! At that stage, our approach is more qualitative and iterative. Qualitative because if the thesaurus is used in future studies, then we could see this as a positive test : the thesaurus and its definitions meet the users' needs. Iterative because we are aware that this first version of the thesaurus is not perfect and some definitions are probably not fully consensual. Therefore, the amount of comments and suggestions of new terms and definitions will be another indicator to test the thesaurus.

4. The gatekeepers are listed as Scientific and Technical Committee of the 4 per 1000 Initiative. How often will these meet to discuss new entries? Will previous entries be reviewed?

Usually, the Scientific and Technical Committee (STC) of the 4 per 1000 Initiative gathers 2 or 3 times a year. It seems reasonable to assume that the thesaurus could be put at the agenda once a year. The previous entries were not formally reviewed by the STC even though the thesaurus was shared with some of their members.