Dear Editor,

We would like to thank again both reviewers for their useful comments and their encouragement. We have proof-read and further ammended our manuscript according to their suggestions. Below you can find a list of changes and when appropriated the ammended text in quotes.

Response to Reviewer #1

L291-292: "Respiration of soil decomposition" - please modify the sentence. it is not clear, what you mean.

We have change the phrase to "Respiration from soil decomposition" which is the quantity given from equations 6 and 12 for the chemcial and biological model respectively as given in the material and methods.

L405: Misprint - hypothesize

Changed

L477: enzymatic... in the first years

Changed

L480: enzymatic

Changed

L590: Plant

Changed

Response to Reviewer #2

Thanks for the authors' addressing my concern. Now the paper looks much better. However, I think Eq. (9) is still not describing what you put in the code. In your fortran code $dCmicrobes\_dt = ...$ -microbial_death * microbial_activity * Cmicrobes with microbial_death = md_max / (1 + md_i * Cfast). Cfast is missing in Eq. (9).

We thank the reviewer for bringing this to our attention and apologise for missing this for a second time. We have now changed equation 9 to reflect what it appears in the code

There are also some grammar typos. Please check carefully before you submit the final text for publication (if the editor decides so).

We have proof-read the manuscript and corrected any typographical or grammar errors.