

Response to editorial comments for paper:

” Forest soil carbon stock estimates in a nationwide inventory: evaluating performance of the ROMULv and Yasso07 models in Finland” by *Lehtonen et al.* Submitted for publication in *Geoscientific Model Development* journal.

Dear Dr. Sierra,

We acknowledge editorial remarks provided to our manuscript. We have addressed those as described below (our reply is given in *italics*), note that page and line numbers refer to final version:

1. Please explain better how do you obtained the steady-state estimates. Did you run the models until a specific time? What was this time? Did you use any criteria to assess whether you reached a steady-state?

Description of the steady-state runs were added on page 7 lines 15-18.

2. On page 11, lines 28-32, the units are missing a time unit if they are fluxes. Are they in year⁻¹?

Units were added on page 11 lines 27 – 31.

3. Part of the discrepancy between steady-state modeled values and the observed data could be due to land-use effects. Can you discuss whether this is a possibility?

A discussion about potential land-use effect in our soil carbon data was added on page 12 lines 21-26.