

I thank the authors for the new version of the manuscript. Just few (mostly technical) points that might be worth taking into account:

Response: We thank the reviewer for the time and efforts in reviewing the manuscript. We carefully addressed each comment as shown below and made the corrections accordingly.

- line 583: 'showed'
- line 593: 'estimates'
- line 612: elsewhere 'ILAMB'
- line 1222: all upper case letters in title

Response: We've corrected all above as suggested.

Supplement

"existing NSC turns over to the atmosphere and is not utilized by plants." - a bit unclear, it's respired?

Response: yes, it is respired and CO₂ is being released into the atmosphere. We've revised this statement to make it more clear:

"..existing NSC turns over and releases CO₂ into the atmosphere..."

NPP_{n,annual} - typo (in the third equation)

Response: It has been corrected.

Fig S7: CO₂ without subscript two times

Response: It has been corrected.