

Dear Editor

We approach ESSD with a newly revised version of the manuscript “The global forest above-ground biomass pool for 2010 estimated from high-resolution satellite observations”. Following the comments by RC #3. Our replies are part of this document. Our point-by-point replies are in *italic*.

Best regards

Maurizio Santoro (on behalf of all co-authors)

Only a few minor editing suggestions but otherwise, this is a comprehensive and ground-breaking study that has led to the generation of global maps of above ground biomass from radar data for 2010. The technique focuses on the retrieval of GSV and subsequently AGB (by using information on wood density and expansion factors) without the need for ground calibration but the validation is robust/rigorous and uses a substantive dataset. The text clearly and concisely explains the approach and deals with a range of important issues, including comparisons with existing ground and satellite-based efforts, the amounts and distribution of biomass globally and within regions and relevance to global and country level reporting of biomass (vegetation carbon stocks).

Line 66: Should read "the literature"

Line 782: , such as savannah,

Line 736: Comma after 90N)

*We are thankful for the positive comments. We have implemented all the changes suggested.*