

Interactive comment on “Imaging tropical peatlands in Indonesia using ground penetrating radar (GPR) and electrical resistivity imaging (ERI): implications for carbon stock estimates and peat soil characterization” by X. Comas et al.

Anonymous Referee #3

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The paper presents interesting data on a critical issue: estimation of carbon stocks of tropical peatlands. However, the paper, as currently written, is not well structured for Biogeoscience discussion. It is too technical and focused on the geophysical methods. The paper should be restructured and extended for a publication in Biogeoscience discussions or sent to another journal more focused on geophysical methods.

The authors should, in the discussion section, present direct answers to the objectives stated at the end of the introduction. The demonstration of how geophysical methods help to increase the accuracy of peat C storage should be more clearly presented.

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A great interest of this study and geophysical method is, as stated in the conclusion, the ability to detect wood buttress in the peat matrix. These features are critical in tropical peat system and strongly influences peat density and carbon stocks estimates. The author should emphasize this aspect and how it could actually improve the carbon stock estimates.

The results description is too detailed. The discussion section should be shorten and structured and emphasize a few clear points.

Detailed comments: Table 1: Please provide the peat bulk density values that were measured to calculate ‘peat profile C stock’ (p202, l3). P203, l19-21, How do the authors relate resistivity values to ionic concentration?

Interactive comment on Biogeosciences Discuss., 12, 191, 2015.