Interactive comment on "Depth-to-Bedrock Map of China at a Spatial Resolution of 100 Meters" by Fapeng Yan et al.

Anonymous Referee #1

Reading the manuscript title, one has the feeling that it could be a contribution of interest to global soil map project because the manuscript could improve the fragmented and dated knowledge of the world soil resources. The Authors have also invoked the concepts and methodologies of digital soil mapping, and the scorpan approach (McBratney et al., 2003) for predictive modelling and mapping of soil. Scorpan, which is rooted in earlier works of Jenny (1941) and Russian soil scientist Dokuchaev, is a mnemonic for factors for prediction of soil attributes: soil climate, organism, relief, parent materials, age, and spatial position. Unfortunately, the topic of the manuscript is not the soil knowledge because the depths taken into account go over what could be included in the soil concept. In addition, it is not even possible to invoke the use of factors of soil formation to select covariables for improving the estimation of depth to bedrock

depth because they cannot act at the measured depths. However, the manuscript could be an interesting contribution to other research areas, which they have also mentioned by Authors. The manuscript should be revised accordingly the real research area refocusing properly the manuscript and particularly the methods. The concept of soil cannot be considered and the Authors should talk about only the depth to bedrock. Finally, a lot of comments and suggestions are possible but I think at this moment are needless and I hope to review soon a revised version of the manuscript.

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