



SDI Review Form 1.6

Journal Name:	Asian Soil Research Journal
Manuscript Number:	Ms_ASRJ_47970
Title of the Manuscript:	Pedotransfer functions for estimating saturated hydraulic conductivity of selected benchmark soils in Ghana
Type of the Article	<u>Original Research Article</u>

General guideline for Peer Review process:

This journal's peer review policy states that **NO** manuscript should be rejected only on the basis of '**lack of Novelty**', provided the manuscript is scientifically robust and technically sound. To know the complete guideline for Peer Review process, reviewers are requested to visit this link:

(<http://www.sciencedomain.org/page.php?id=sdi-general-editorial-policy#Peer-Review-Guideline>)

PART 1: Review Comments

	Reviewer's comment	Author's comment (if agreed with reviewer, correct the manuscript and highlight that part in the manuscript. It is mandatory that authors should write his/her feedback here)
Compulsory REVISION comments	<p>-The presented manuscript is curious and has a lot of references.</p> <p>- It is necessary to show "raw" results of obtained saturated hydraulic conductivity with basic statistical analysis as mean and standard deviations. It is good to present above results on the charts.</p> <p>-The biggest disadvantages in my opinion is estimation of saturated hydraulic conductivity in laboratory using falling head methods. In my opinion in low permeable soil, it's better to use constant head methods (see: Nieć, J., Spychała, M. (2014): Hydraulic conductivity estimation test impact on long-term acceptance rate and soil absorption system design. Water, 6, pages 2808-2820.)</p>	<p>-The many references presented herein, show the extent, importance, and the in depth of review of both past and current literature of the subject matter.</p> <p>- Although the individual K_s values are needed for estimating the PTFs and for evaluations, I think the summary as reported in the Table 1 with mean \pm sd as suggested is sound.</p> <p>-The use of falling head method in measuring saturated hydraulic conductivity (K_s) have been successfully used in several studies (e.g., Bonsu and Laryea, 1989; Khalid <i>et al.</i>, 2014, etc.). It has, thus, become a universally accepted method for measuring K_s in the laboratory, hence, its use in the current study.</p>
Minor REVISION comments	I cannot agree with sentence line 21 to 24. The direct methods are time constraining, and cost inefficient, especially over large scales but they are taking into account soil heterogeneity (especially compare to indirect methods). The laboratory set up (figure 1) should be explained how the soil sample were saturated,	The statements in lines 21 – 24 are a fact; direct determination of K_s under both field and laboratory conditions can be very tedious, time constraining, and cost inefficient, especially over large scales, and may often result in unreliable data due to soil heterogeneity and experimental errors.
Optional/General comments		

PART 2:

	Reviewer's comment	Author's comment (if agreed with reviewer, correct the manuscript and highlight that part in the manuscript. It is mandatory that authors should write his/her feedback here)
Are there ethical issues in this manuscript?	(If yes, Kindly please write down the ethical issues here in details)	