



SDI Review Form 1.6

Journal Name:	Asian Journal of Agricultural Extension, Economics & Sociology
Manuscript Number:	2013_AJAEES_6310
Title of the Manuscript:	THE EFFECTS OF CLIMATE CHANGE ON AGRICULTURAL SUSTAINABILITY IN SOUTHEAST NIGERIA – IMPLICATIONS FOR FOOD SECURITY
Type of the Article	

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.

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



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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	- Some of the discussion and conclusion of statistically insignificant relationship were interpreted as having <u>weak</u> relationships. It is more appropriate to interpret it as <u>no</u> statistically significant relationships. - The variables used in the model must be carefully defined. i.e. output (does it mean total agricultural output or only crops, and not livestock, fisheries?) Same with inputs, no defined inputs were observed in the paper. - In the determination of TFP model, I assume means of each variable are the annual averages. The author should not use "mean for 30 year period" as it will be understood as the mean over the period and will be only one value.	The observation on the use of weak relationship is noted and has been corrected accordingly. -The output meant in the paper is output of the crop cassava as clearly defined in the methodology. However for clarity purpose, cassava as the crop of interest has been added in the relevant sections of the models. Similarly, the inputs meant in the work include purchased inputs like land, labour, and chemicals/ fertilizer. These have been added also in the appropriate sections. - The means of the variables in the TFP model are actually the annual averages for a period of 30 years (1982-2011). This has been corrected accordingly.
Minor REVISION comments	- The author used data of what was hypothesized to be climate change variables. For agricultural production, should those variables be site-specific and crop specific? The data on one location can be different from another location, and not sure if using country's average will	-Obviously the climate variable are site specific (the region under study i.e Southeast Nigeria)and were only used to look at the effects on TFP/sustainability in the same region. It will be inappropriate to use climate data on TFP/Sustainability estimated from different



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	appropriately justified. - In the determination of TFP model, those variables are assumed a linear relationship between sustainability and climate change variables. My understanding is that there should be optimal range of those variables for agricultural production i.e. beyond certain point, it will have a reverse effect. It is suggested a quadratic relationship i.e. X and X^2 so you can capture the influence of those variables beyond critical point. Otherwise, the linear relationship is interpreted on only one direction i.e. higher rainfall or temperature always affect the production positively, and that is not true in reality.	locations. -No sir. The TFP model as seen there is stated in the implicit form. It does not show/represent any linear relationship. Further reading shows that in the end, the Semi-log functional form which is a curvi-linear function emerged the lead equation and was used to explain the relationship between the endogenous and exogenous variables. That would have taken care of the crop-climate interactions.
<u>Optional/General</u> comments		