



SDI Review Form 1.6

Journal Name:	British Journal of Applied Science & Technology
Manuscript Number:	MS: 2013_BJAST_5725
Title of the Manuscript:	Adaptation strategies to climate change among smallholder farmers in the Volta Region of Ghana
Type of the Article	Research Paper

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:

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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	- The information in the paper is well supported and draws specifically on research data and analysis. Moreover, general arguments in the manuscript are well supported by quantitative evidences. However, there are few points that need to be addressed: - Extremes of weather, extremes changes, climate and weather changes and climate change and variability are terms that are used interchangeably in the paper. These terms have different definitions and should not be used as if they are the same issue. Please check the IPCC-SREX Report (https://www.ipcc.ch/pdf/special-reports/srex/SREX_Full_Report.pdf) to identify these terminologies and improve the understanding of these terms as well as the relation between climate change and the frequency and intensity of extreme weather. - Page 6 Line 215: low yields (18%) is mentioned among the climate change indicators – we have to differentiate between climatic indicators and impacts attributed to changes in temperature, rainfall as well as to non-climatic factors such as land use, inputs etc... - The paper didn't provide information regarding the	IPCC-SREX report was read and definition of terms corrected accordingly e.g., climate extremes. The manuscript has been corrected to conform to the standard definitions contained in the document. The original data set was revisited and reclassification of responses linked to low yields showed that low rainfall, changes in rainfall patterns and high temperatures can be accounted for. We could not however separate further the impacts of climatic and



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	farmers' perceptions about extremes- how they perceive an event as being extreme versus climate variability? And how does extreme event impact them differently. Moreover, the analysis of indigenous knowledge didn't include information on traditional means-if any- for seasonal forecasting which is considered as an important component of the traditional coping mechanism in SSA. - Line 215 : Figure 1: Frequency of extremes of weather experienced by farmers in the last 3 years. It is important to be specific and show which type of extreme the figure is referring to - drought, floods, heat waves??? - Similarly in Figure 3: Adaptation strategies suggested by farmers in the Volta region to minimize the effects of weather and climate changes on rice and maize systems The author should also be specific here regarding the type of change (rainfall variability, temperature, drought, floods etc.) for which the adaptation measure is implemented. - Conclusions are rather vague and should be consolidated	non-climatic factors. We recommend future studies to note this overlap. The current data shows the importance of local experts as sources of weather information. This is consistent with work of Hammer et al. 2001. However in this study we do not have enough data to explore this interesting line of argument further. Climate extremes and variability referred to drought and floods. Our data shows that drought was more pronounced in two forms; season long and mid-season drought. Adaptation strategies referred to are related to drought more than other form of climate extremes. Attended to.
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Minor REVISION comments	338 Drought and floods e.g., have been reported as highlights of the social and biophysical connectivity and coping requires engagement of several factors [16; 18] (please redraft the sentence to make it clearer). 315 climate change adaptation significant impacted both farm productivity and net revenues from smallholder farms. (Please redraft/correct the sentence to make it clearer). - In line 222 page 3 it is mentioned “climate change variability”??? maybe we need to add and - Page 4 - line 164 mentioned “combined household” (not clear what is meant by combined household) <u>Editorials</u> Figure 3: Adaptation startegies suggested by farmers in the Volta region to minimize the 269 effects of weather and climate chnages on rice and maize systems (check spelling) Line 296 while pepper sales could complement household can income. (Delete can) Line 332 appropriate products for the user community as an important step to achieve effect utilization of forecasts. (may be effective)	Corrected. Corrected. Noted Rephrased to show a combination of the two. Editorials attended to.
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	334 The observed changes in pest incidence, crop and forestry production (add a comma)	
<u>Optional/General</u> comments	• Thank you for the opportunity to review this paper. I think it makes some good arguments and provide good lessons on adaptation to climate change in SS Africa.	