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Journal Name:	Asian Journal of Agricultural Extension, Economics & Sociology
Manuscript Number:	Ms_AJAEES_125275
Title of the Manuscript:	Climate change adaptation mechanisms for smallholder farmers in Côte d'Ivoire
Type of the Article	Original Research Article

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PART 1: Review Comments

Compulsory REVISION comments	Reviewer's comment	Author's Feedback (Please correct the manuscript and highlight that part in the manuscript. It is mandatory that authors should write his/her feedback here)
<p>Please write a few sentences regarding the importance of this manuscript for the scientific community. Why do you like (or dislike) this manuscript? A minimum of 3-4 sentences may be required for this part.</p>	<p>The manuscript on "<i>Climate change adaptation mechanisms for smallholder farmers in Côte d'Ivoire</i>" provides valuable insights for the scientific community. It addresses a critical issue in climate adaptation by analyzing the factors that influence smallholder farmers' ability to adapt to climate change. Using econometric models, it highlights the importance of perception, access to agricultural information, cooperative membership, and financial tools in shaping adaptation strategies. This research is particularly significant as it fills gaps in the existing literature by linking perception with adaptation and including a wide range of smallholder farmers across Côte d'Ivoire. I find this manuscript important because it not only contributes to the ongoing dialogue about climate resilience in agriculture but also offers actionable policy recommendations. The findings emphasize strengthening advisory support and promoting gender equality in access to resources, which are vital for effective climate adaptation. However, the manuscript could benefit from a more detailed exploration of the limitations and potential biases in the data used.</p>	
<p>Is the title of the article suitable? (If not please suggest an alternative title)</p>	<p>The current title, "<i>Climate change adaptation mechanisms for smallholder farmers in Côte d'Ivoire</i>," is suitable as it clearly reflects the study's focus on climate adaptation strategies among smallholder farmers in a specific geographical context. It is concise and gives potential readers a clear understanding of the paper's main subject. However, to make it more precise and emphasize the role of perception and factors influencing adaptation, an alternative title could be: "Assessing Climate Change Adaptation Mechanisms and Perception Among Smallholder Farmers in Côte d'Ivoire" This revised title highlights both the adaptation mechanisms and the role of perception, which are key aspects of the study.</p>	

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<p>Is the abstract of the article comprehensive? Do you suggest the addition (or deletion) of some points in this section? Please write your suggestions here.</p>	<p>Title Suitability: The title, "<i>Climate change adaptation mechanisms for smallholder farmers in Côte d'Ivoire</i>," is largely suitable, as it captures the core subject of the paper—climate adaptation strategies among smallholder farmers in Côte d'Ivoire. However, the title could be slightly refined to emphasize the analytical approach and key findings, such as the role of perception in adaptation.</p> <p>Suggested Alternative Title: <i>"Analyzing Climate Change Adaptation Strategies and Perception Among Smallholder Farmers in Côte d'Ivoire"</i></p> <p>This revision provides clarity on the focus of the study, highlighting both the mechanisms and the perception aspects of climate change adaptation.</p> <p>Abstract Review: The abstract is generally comprehensive, as it outlines the study's objective, methodology, key findings, and policy implications. However, there are a few areas where clarity and conciseness could be improved:</p> <ol style="list-style-type: none"> Econometric Model Explanation: The abstract briefly mentions the use of the Heckman's probit model but does not explain why it was chosen or how it addresses selection bias. A concise explanation of the model's significance in linking perception to adaptation would enhance understanding. Findings on Gender and Income: While the abstract mentions the significance of gender, education, and income in adaptation, it could briefly explain how these factors influence the adaptation strategies of smallholder farmers. Policy Recommendations: The abstract could be strengthened by clearly outlining the most actionable recommendations based on the study's findings, such as the importance of access to agricultural information or cooperative membership. <p>Suggested Abstract Revision: <i>"This paper analyzes the adaptation mechanisms employed by smallholder farmers in Côte d'Ivoire in response to climate change. Using data from the World Bank's CGAP survey (2016) and applying the Heckman's probit model with sample selection, the study accounts for farmers' perception of climate change and its impact on adaptation strategies. The findings show that perception is a key factor in adopting climate-smart strategies, with access to agricultural information, cooperative membership, insurance, gender, education, and income levels being decisive variables. The study recommends policies that enhance advisory support, promote cooperatives, and ensure gender equality in accessing productive resources. These measures are essential for strengthening the adaptive capacity of smallholder farmers in Côte d'Ivoire."</i></p> <p>This version improves the clarity of the methodology, highlights key findings, and makes policy recommendations more explicit.</p>	
<p>Are subsections and structure of the manuscript appropriate?</p>	<p>The structure of the manuscript appears appropriate and follows a logical flow, which is standard for research articles. Here's an assessment of the subsections and overall structure:</p> <ol style="list-style-type: none"> Abstract The abstract effectively summarizes the key aspects of the study, including the objective, methodology, and key findings. With minor clarifications as suggested earlier, it serves its purpose well. Introduction The introduction provides a solid background on the significance of climate change adaptation in agricultural settings, especially in African contexts like Côte d'Ivoire. It outlines the research gap clearly and defines the study's objectives. This section is well-structured, providing context and setting the stage for the research. Methodology and Data This section is divided into appropriate subsections, including: <ul style="list-style-type: none"> • Presentation of the Theoretical and Empirical Model • The Data The methodology is well-detailed, especially with the explanation of the Heckman's probit model, which accounts for selection bias. The data section is also comprehensive. However, it might benefit from a brief discussion on potential limitations of the data and any assumptions made during the analysis. Results and Discussion This section effectively presents descriptive statistics and econometric results. The 	

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	<p>inclusion of both a broad analysis and sensitivity tests for farm size and crop type shows the rigor of the study. However, the discussion could benefit from further elaboration on the implications of the results, particularly with respect to gender differences and the impact of cooperatives.</p> <p>Subsections like:</p> <ul style="list-style-type: none"> • Descriptive Statistics • Econometric Results • Sensitivity Analysis (Robustness Tests) <p>are appropriate and necessary to segment the findings clearly. It might be useful to explicitly label subsections for easier navigation between specific findings, such as “Gender and Adaptation Strategies” or “Role of Agricultural Information.”</p> <p>5. Conclusion and Policy Implications The conclusion ties the findings back to the broader implications for policy, making this section both appropriate and effective. However, the "Policy Implications" section could be expanded slightly to offer more detailed recommendations that policy-makers can adopt based on the study’s findings.</p> <p>6. References The references section appears well-organized and sufficiently comprehensive. It covers a broad range of relevant literature, reinforcing the credibility of the manuscript.</p> <p>Overall Suggestions for Structure:</p> <ul style="list-style-type: none"> • The manuscript is generally well-structured with appropriate subsections. If anything, the <i>Results and Discussion</i> section could be better segmented into more targeted subsections (e.g., highlighting specific factors like gender or farm size) to make it easier for readers to follow. • An explicit <i>Limitations</i> subsection might help address any gaps in data or methodology. 	
<p>Please write a few sentences regarding the scientific correctness of this manuscript. Why do you think that this manuscript is scientifically robust and technically sound? A minimum of 3-4 sentences may be required for this part.</p>	<p>This manuscript is scientifically robust and technically sound due to its use of a rigorous econometric model—the Heckman’s probit model with sample selection—to address selection bias, a common issue in studies involving farmers’ perception and adaptation behaviors. The use of this model enhances the reliability of the results, as it appropriately accounts for the two-step process of perception and adaptation, ensuring that the estimations are not biased. Additionally, the study draws from a reputable dataset provided by the World Bank’s CGAP survey, which offers a large and diverse sample of smallholder farmers in Côte d'Ivoire, thus increasing the external validity of the findings.</p> <p>Furthermore, the manuscript's findings are well-supported by detailed statistical analysis and sensitivity tests, including robustness checks for farm size and crop type, which further demonstrates the thoroughness of the research. The conclusions drawn from these analyses align with existing literature on climate adaptation, providing a well-grounded contribution to the field of agricultural climate resilience.</p>	
<p>Are the references sufficient and recent? If you have suggestions of additional references, please mention them in the review form.</p> <p>:</p>	<p>The references in the manuscript are largely sufficient, covering a broad spectrum of literature related to climate change, agricultural adaptation, and socioeconomic factors influencing smallholder farmers' behavior. The citations include seminal works from organizations like the IPCC and World Bank, as well as relevant academic papers on climate adaptation strategies in Africa, which supports the scientific foundation of the study.</p> <p>However, while many of the references are appropriate, some are relatively older (from the early 2000s). Incorporating more recent studies (within the past five years) on climate change adaptation and agricultural resilience in sub-Saharan Africa would further strengthen the manuscript’s relevance and connection to current research trends.</p> <p>Suggested Additional References:</p> <ol style="list-style-type: none"> 1. Lipper, L., Thornton, P., Campbell, B. M., Baedeker, T., Braimoh, A., Bwalya, M., ... & Torquebiau, E. F. (2014). <i>Climate-smart agriculture for food security</i>. <i>Nature Climate Change</i>, 4(12), 1068-1072. <ul style="list-style-type: none"> ○ This paper discusses climate-smart agriculture, which could provide additional insights into policy recommendations regarding adaptation strategies. 2. FAO. (2018). <i>The State of Food and Agriculture 2018: Migration, agriculture and rural development</i>. 	

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	<ul style="list-style-type: none"> ○ This document provides updated insights on smallholder farmers' adaptive strategies in developing countries, offering context for adaptation policies and resilience building. <p>3. Thornton, P. K., & Herrero, M. (2015). <i>Adapting to climate change in the mixed crop and livestock farming systems in sub-Saharan Africa</i>. <i>Nature Climate Change</i>, 5(9), 830-836.</p> <ul style="list-style-type: none"> ○ This article explores adaptation strategies in mixed farming systems, a relevant context for discussing the adoption of various agricultural practices. 	
<p>Minor REVISION comments</p> <p>Is the language/English quality of the article suitable for scholarly communications?</p>	<p>The language quality of the article is generally suitable for scholarly communication. The manuscript is written in a clear and formal academic tone, with appropriate terminology and structure for the field of study. However, there are a few areas where the phrasing could be improved for clarity and fluency, particularly in the explanation of technical details like the econometric model. Additionally, some sentences could be refined to improve readability and conciseness.</p> <p>Here are a few suggestions for improving language quality:</p> <ol style="list-style-type: none"> 1. Simplify Complex Sentences: Some sentences are overly long and complex, which could be broken down into simpler sentences to improve clarity. 2. Technical Terminology: While the use of technical terms is appropriate, it would be beneficial to explain them briefly, especially when introducing the econometric model (e.g., explaining "selection bias" or "sample selection model" briefly for a broader audience). 3. Minor Grammatical Adjustments: There are minor issues with punctuation and sentence flow in some areas, but these can easily be fixed with a careful proofreading. <p>Overall, the manuscript is well-written, but it could benefit from minor language polishing to enhance its scholarly readability.</p>	
<p>Optional/General comments</p>	<p>General Comments:</p> <p>This manuscript makes a valuable contribution to the field of climate change adaptation in agriculture, specifically focusing on smallholder farmers in Côte d'Ivoire. The use of an econometric approach (Heckman's probit model) strengthens the scientific validity of the findings by addressing selection bias. The policy recommendations based on the analysis are particularly relevant for informing future strategies in supporting climate resilience among smallholder farmers.</p> <p>Strengths:</p> <ol style="list-style-type: none"> 1. Clear Focus: The study addresses a specific and relevant research gap—how smallholder farmers perceive and adapt to climate change. 2. Robust Methodology: The use of an econometric model that considers both perception and adaptation stages is commendable. 3. Policy Relevance: The manuscript offers concrete, actionable policy suggestions, particularly on access to information, cooperatives, and gender equity. <p>Areas for Improvement:</p> <ol style="list-style-type: none"> 1. Language Refinement: A final round of proofreading would help correct minor grammatical issues and improve clarity. 2. More Recent References: Including a few more recent references (within the last 5 years) could enhance the manuscript's relevance. 3. Elaboration on Limitations: A brief discussion of the study's limitations, particularly regarding data collection or model assumptions, would strengthen the manuscript's transparency. <p>In summary, the manuscript is a well-executed piece of research, and with minor adjustments, it will be even stronger for publication in a scholarly journal.</p>	

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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?	<i>(If yes, Kindly please write down the ethical issues here in details)</i>	

Reviewer Details:

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