

Review Form 1.7

Journal Name:	International Journal of Environment and Climate Change
Manuscript Number:	Ms_IJECC_109257
Title of the Manuscript:	Determinants of Adoption of Climate Smart Agricultural Technologies among Farm Households in Southern Karnataka, India
Type of the Article	Original Research Article

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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)
<p>Compulsory REVISION comments</p> <ol style="list-style-type: none"> Is the manuscript important for scientific community? (Please write few sentences on this manuscript) Is the title of the article suitable? (If not please suggest an alternative title) Is the abstract of the article comprehensive? Are subsections and structure of the manuscript appropriate? Do you think the manuscript is scientifically correct? Are the references sufficient and recent? If you have suggestion of additional references, please mention in the review form. <p><u>(Apart from above mentioned 6 points, reviewers are free to provide additional suggestions/comments)</u></p>	<p>General It is an innovative research idea and considerable effort seems to have been exerted in the study. It addresses an important question about the determinants of adoption of climate smart agricultural technologies among farm households in Southern Karnataka, India. However, the study has a number of formatting, languages, content and clarity issues which should be improved before publication as follows: Title: Ok Abstract:</p> <ul style="list-style-type: none"> You have no problem stated in the abstract The specific objectives or the general purpose of the paper that you want to study is not stated clearly Don't use abbreviations in abstract – the 101 of Abstract writing <p>Introduction Generally, it is good with some issues to address. Detailed and minor issues in the document Few important issues here are</p> <ul style="list-style-type: none"> A number of statements as well as paragraphs are not sustained by references: <ul style="list-style-type: none"> <i>“The agriculture sector plays a vital role in enriching India’s economy. In the recent years, the agriculture sector has been facing various challenges such as yield plateaus.....”</i> (Who showed that?) You don't have a paragraph on 'what have been done/ known and what have not been done. Known' to show knowledge gap and point your area of contribution. Describe what information are available and what is the gap. It focused on the general problem situation; instead one would like to see <ul style="list-style-type: none"> Why did you want to do this study: why the specific study area? Objectives of the study: it better to put the specific objectives together with the introduction. <p>Materials and methods</p> <ul style="list-style-type: none"> Generally good but few limitations are observed. <p>Theoretical and Conceptual Framework</p> <ul style="list-style-type: none"> It is good that you tried to have a theory, a conceptual framework also requires for a paper to see how you are going to approach the issue. <p>Methodology</p> <ul style="list-style-type: none"> Sampling: The study employed both multistage purposive and snowball sampling techniques to collect quantitative and qualitative data. Why you used purposive rather than randomization and snowball rather than other techniques? It needs clear justification. Sample size: How can you find your study sample size (180): example: in known target population (adopters and non-adopters in your case) Cochran's Formula is best to determine the sample size of the study. The type and source of data you used should be stated clearly. Questionnaire: A copy of the full questionnaire in Annex would help the reader in evaluating how the product was presented, and the efforts that were made to avoid known biases associated with methods. In addition, a description of these efforts should be mentioned in the text. Pre-tested/pilot survey: how and why you applied the pilot survey for the study. <p>Analytical tools used</p> <ul style="list-style-type: none"> Probit model is used for your data analysis. But why did not you use tobit model? It has an advantage over other discrete choice models (Linear probability model, Probit, and logistic) 	

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	<p>in that, it reveals both the probability and the impact of the determinant variables on the dependent variable (Baldasaro, 2014). And also a multinomial endogenous switching regression is appropriate for such type of data analysis. How do you differentiate the model you used and tobit model or logit or other models?</p> <ul style="list-style-type: none"> • "The probit model was used both to estimate the impact of the independent variables on consumer behavior regarding the purchase of fresh sweet corn., and to predict probabilities of change in consumer purchasing behavior under several simulated variable levels." Why did you include "fresh sweet corn" in you econometric model justification and who showed that? Please clearly justify your appropriate econometric model for your study. • Representativity of your sample? While it is interesting to compare potential adopters' vs potential non-adopters, it would also be necessary to get an idea about the representativity of your sample when compared to the farmers' population of the district? (for example an additional table comparing sample and district statistics would help) • Variable definition and measurement: the dependent and independent variables with their measurements should be clearly stated before the result and discussion section. <p>Results and Discussion</p> <ul style="list-style-type: none"> • Descriptive analysis part: it is advisable to analyze the dependent variables separately as socioeconomic, institutional, climate and the like. • Inferential statistics: the dummy variables should be tested statistically using Chi-square test and the continuous variables should be tasted using t-test. • Discussion of the estimation result of probit model on determinants of adoption of CSA technologies in the two districts should be based on marginal effect result rather than direct regression result. Only marginal effect result is enough for the discussion session and you can put the estimation result of the two districts from the annex session. • What Pseudo R² value indicates? • What makes the two districts different to each other statistically? Further explanation should be given. • What makes Climate Smart Agricultural Technologies different from the existing agricultural technology? • Further explanation should be given to the significant of Climate Smart Agricultural Technologies for increased productivity, enhanced resilience and reduced emissions for the households of the district based on the estimation result because thus points are stated as an objective of the paper. • Tests: the multicollinearity of the dependent variable should be tested using variance inflation factor and pairwise correlation test 	
<p>Minor REVISION comments</p> <p>1. Is language/English quality of the article suitable for scholarly communications?</p>	<p>Yes but needs some modification</p>	
<p>Optional/General comments</p>		

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PART 2:

	Reviewer's comment	Author's comment <i>(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)</i>
Are there ethical issues in this manuscript?	<i>(If yes, Kindly please write down the ethical issues here in details)</i>	

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