Journal Name:	International Journal of Environment and Climate Change
Manuscript Number:	**Ms_IJECC_63349**
Title of the Manuscript:	**Perceived Climate Resilience and Adoption of Cocoa Agroforestry in the Forest-Savannah Transition Zone of Ghana**
Type of the Article	**Original Research Article**

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SDI Review Form 1.6

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	• **Define how you have selected households, whether they include different farmers who adopted cocoa agroforestry in different years?** • **Mention the crop phases that you have visited the field?** • **What are the agroforestry trees planted or exisiting in the cocoa farm?** • **What could be the appropriate density per ha?** • **What is the difference in yield, by-product and income among the agroforestry and full-sun grown field?** • **What level of education has significant influence?** • **In what phase social network is helpful? (Cultivation or marketing)** • **You have mentioned that, surveyed 240 households belong to 12 communities but there is no views of them in the result and discussion sections.**	• As indicated on Page 4 Paragraph 1, farmers were selected and categorized based on whether they were adopting agroforestry or not at the time of data collection. Agroforestry adoption in different years was not investigated. • Some of the dominant trees integrated by farmers (e.g. *A. boonei* and *A. toxicaria*) have been mentioned in the results and discussion. • I appreciate the idea of including information on the crop phases visited, appropriate density, and differences in yield, by-product, and income between agroforestry and full-sun systems. However, these are outside the focus of this paper, which is whether perceived climate resilience of agroforestry influences farmers' decision to integrate shade trees or not. Besides, adding all these information would cause the paper to greatly exceed the word limit of the journal. • The level of education that has significant influence is a minimum of primary education. This is indicated on Page 4, Section 2.3. • As indicated on Page 2, Paragraph 4, social network is helpful in spreading information on the climate-related benefits of shade trees among farmers. So this would be at the cultivation stage. • The view of one of the farmers was quoted on Page 5, Line 14-15.
Minor REVISION comments	• The main reason (76.19%) was the perception that shade trees increase vulnerability to drought and low yield (Section 3.2). Unclear or contradictory • The perception that shade trees enhance vulnerability to drought was probably because cocoa farmers in the study area were generally maintaining inappropriate shade trees (Section 3.3, para 3). Confusing statement. • The area experiences total annual rainfall of 1100 to 1400 mm, and an average temperature of 17 to 33ºC [**Error! Reference source not found.**] (Section 2.1). It appears the study area receives good amount of rainfall and the temperature is moderate over the years. Correlate farmers perception with climatic parameters	• This means the vast majority of full-sun households (76.19%) were not adopting agroforestry because they were of the view that shade trees rather make cocoa more vulnerable to drought, thereby leading to low yield. That was their perception, which has some empirical backing depending on the kind of shade trees integrated (Section 3.3, Paragraph 3). • That statement has been clarified in Section 3.3, Paragraph 3: "The perception that shade trees enhance vulnerability to drought was probably because cocoa farmers in the study area were generally maintaining shade trees that were highly competitive for soil water, such as *A. toxicaria*". The sentence afterwards provides some literature to support that statement. • The rainfall and temperature ranges indicated are at the margins of the ideal climatic conditions for cocoa. According to ICCO (2013), maximum annual temperatures ideal for cocoa production are 30-32°C; and rainfall should ideally range from 1,500mm to 2,000mm per annum. • ICCO [International Cocoa Organisation] (2013). Growing cocoa: Origins of cocoa and its spread around the world, Available at https://www.icco.org/about-cocoa/growing-cocoa.html
Optional/General comments	• Many statements looks general not substantiated with field data • Strengthen the methodology section	The methodology section has been further strengthened by justifying why climate resilience was assessed from farmers' perspectives (Section 2.2, Page 3). A descriptive statistics of the variables included in the logistic regression model has also been provided as Appendix 1.

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)*	