

Review of: "Exploring the Link between Climate Change and Farming in Rural and Peri-Urban Communities in Sierra Leone"

Sana Zeeshan Shirazi

Potential competing interests: No potential competing interests to declare.

This paper can be a valuable contribution to understanding the link between climate change and farming in Sierra Leone, after a major revision. The research questions are relevant, and the methodology is generally sound, though it could benefit from more detailed descriptions and critical engagement with the data. The data merely states the percentages without applying any statistical tests to gauge the significance of the results.

Starting from the Abstract, I find the need to be more specific in providing the findings identified in this study through respondents' interviews rather than stating generic facts. It is better to keep the research questions to the last paragraph of the Introduction and be specific in stating the brief method and key findings in the Abstract section.

The introduction provides a comprehensive overview of the global and regional context of climate change impacts on agriculture, citing relevant literature to establish the significance of the study. However, the introduction could benefit from a clearer articulation of the specific knowledge gap in the existing literature that this study aims to fill. While it mentions that limited studies have been conducted in Sierra Leone, the paper could more explicitly state what distinguishes this research from previous work, particularly in terms of methodological approach or focus. In addition, regional and national focus is important, but we see more focus on global findings on the issue.

The results could be presented better if they were hypothesis-driven with a statistical analysis of the data. Rather than just relying on farmers' perceptions of whether yield is increasing or decreasing, the responses should have been explored with the actual trends. The legends in the figures overlap the x-axis labels, which makes them difficult to read. The labels in Figure 6 can be made more precise, e.g., Increase in area of cultivated land, Improved farming practices, etc. The same can be applied to Figure 7 as well.

In section 3.4.1. *Whether the rains have been coming early, late, or normal since 2014*

This question is very vague to be asked of the respondents when you have the actual datasets available to check. In sections 3.4.1.2 and 3.4.2.3, the results have been provided in N, while the manuscript follows a rule of percentage to present the results. The number of respondents does not present a clear picture.

In my opinion, formulating the results section around 2-3 key hypotheses and adding descriptive statistics of the respondents and using ANOVA to compare different groups would have helped understand the questionnaire findings better.

The end of the Introduction section states that correlation, regression analysis, and multi-linear regression were used, but I don't find the application of any of these statistical methods in the results section.

The paper lacks a discussion that could critically relate to the existing literature.

The conclusion is very large, with a repetition of facts stated in previous sections. This section can be improved by offering more specific recommendations for stakeholders such as policymakers, NGOs, and international organizations.