

REVIEWER'S REPORT

Manuscript No.: IJAR-53422

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Title: Determinants of Agricultural Productivity in Karene District, Sierra Leone (1980–2024): An Econometric Analysis of Land, Labor, and Capital

Recommendation:

Accept as it isYES.....

Accept after minor revision.....

Accept after major revision

Do not accept (*Reasons below*)

Rating	Excel.	Good	Fair	Poor
Originality			✓	
Techn. Quality			✓	
Clarity		✓		
Significance			✓	

Reviewer Name: Tahir Ahmad

Reviewer's Comment for Publication.

The **abstract** provides a well-structured overview, outlining the study's motivation, methodological framework, key findings, and policy relevance. By combining survey data from local farmers with secondary sources spanning 45 years, the research offers a broad empirical foundation. The use of the **Vector Error Correction Model (VECM)** and econometric techniques demonstrates methodological rigor and a quantitative orientation that enhances the credibility of the results.

The findings highlight important relationships: land optimization practices are shown to positively influence production, while ineffective labor payment systems undermine output. Capital investment emerges as a crucial driver of modernization and technology adoption, reinforcing its role in agricultural development. These insights are synthesized into policy measures that address both structural inefficiencies and opportunities for systemic reform.

The **introduction** situates the study within the broader economic and social context of Sierra Leone. By emphasizing the centrality of agriculture to the national economy and the high dependency of Karene District's population on farming, the manuscript underscores the urgency of addressing productivity constraints. References to food security, rural poverty, and

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sustainable development establish the multidimensional stakes of the research. The identification of persistent challenges—traditional farming practices, poorly organized labor, and limited investment—provides a strong rationale for the econometric investigation.

The **contribution** of this work is twofold: academically, it enriches the literature on agricultural economics with empirical evidence from a relatively under-researched region; practically, it equips policymakers and development agencies with actionable insights relevant to Sierra Leone and comparable sub-Saharan African contexts. The emphasis on both technical econometric findings and their broader socio-economic implications makes the study valuable across disciplinary and professional boundaries.

Overall, the manuscript demonstrates analytical depth, contextual relevance, and applied significance. By addressing the determinants of agricultural productivity through a robust econometric lens, it offers meaningful knowledge for advancing food security and rural development in Sierra Leone.
