

REVIEWER'S REPORT

Manuscript No.: IJAR- 59433

Title: Communal typology of livelihood vulnerability in Matéri and Banikoara, border areas of northern Benin.

Recommendation:

Accept after minor revision

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

Reviewer Name: Dr. Abdul Haseeb Mir

Detailed Reviewer's Report

General Overview

This manuscript presents a quantitative and typological assessment of household livelihood vulnerability in two northern border communes of Benin (Matéri and Banikoara), which have experienced security degradation and population displacement due to armed conflict spreading from the Sahel. Drawing on a multisectoral survey ($n = 250$ households) conducted by the Benin Red Cross in late August and early September 2026, the study applies the Livelihood Vulnerability Index (LVI) and its IPCC-aligned variant. To move beyond aggregate averages, the authors execute a Multiple Correspondence Analysis (MCA) followed by Hierarchical Ascending Classification (HAC) to construct a 4-class household typology.

The empirical findings reveal that while both communes display virtually identical aggregate moderate LVI scores ($\$0.468$ in Banikoara vs. $\$0.464$ in Matéri), the structural composition of their vulnerability differs significantly. Sensitivity (chronic living conditions, food insecurity, lack of water/shelter) heavily outweighs direct exposure to violence. Four distinct household profiles emerged:

1. *Direct victims of violence and dispossession* ($\$17.2\%$).
2. *Preserved livelihoods* ($\$14.4\%$).
3. *Water and housing stress with asset-eroding coping strategies* ($\$38.4\%$, predominant in Banikoara at $\$61.7\%$).

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4. *Severe food insecurity, frequently female-headed and landless* (\$30.0\%\$, predominant in Matéri at \$41.0\%\$).

The manuscript addresses a highly relevant humanitarian and development policy challenge. The statistical methodology is sound, the integration of qualitative focus group triangulation adds depth, and the paper is logically structured.

Key Strengths

- Methodological Innovation in Vulnerability Studies:** Combining aggregate LVI metrics with MCA-HAC typology effectively solves the "average mask" problem, proving that identical aggregate vulnerability scores can hide radically different household realities.
- Geographical vs. Status Granularity:** The finding that geographic territory (commune/arrondissement) associates more strongly with household vulnerability profiles ($\text{Cramér's } V = 0.40$) than administrative displacement status alone ($\text{Cramér's } V = 0.22$) provides a strong, evidence-based critique of status-only humanitarian targeting.
- Robust Analytical Execution:** The use of standard indices (WFP Food Consumption Score, JMP water thresholds, IPCC contributing factors) and appropriate non-parametric/contingency statistical tests (χ^2 with Yates' correction, Fisher's exact test) ensures high scientific rigor.
- Actionable Policy Relevance:** The recommendations provide concrete guidance for humanitarian actors (e.g., water/shelter infrastructure in Banikoara vs. food aid and land negotiation for female-headed households in Matéri).

Recommendations for Improvement

While the manuscript is well-executed and scientifically sound, addressing a few minor revisions will enhance its clarity and analytical completeness prior to final publication:

- Acknowledge Sample Size Limitations in Arrondissement-Level Interpretations:**

As noted in Section 4.4, the total sample of 250 households yields wide margins of error at the commune level ($\pm 7.8\%$ for Matéri, $\pm 10.1\%$ for Banikoara) and very small subsamples at the arrondissement level ($n = 5$ to 40). Ensure the narrative throughout Section 3.3 and Figure 5 explicitly frames arrondissement groupings as exploratory trends rather than definitive epidemiological estimates.

- Clarify Sub-Component Weighting in Index Construction:**

The LVI components are aggregated using equal weighting across sub-components. Adding a brief sentence in the discussion reiterating how differential weighting schemes (or Principal Component Analysis weights) could be tested in future studies will address standard indexing caveats.

- Expand on Protection Needs for Direct Victims (Type 1):**

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Type 1 households represent 17.2% of the sample and exhibit high direct exposure to violence, dispossession, and displacement. Expanding slightly in Section 4.2 on how protection-oriented interventions (such as civil status recovery, legal documentation, and psychosocial care) intersect with traditional livelihood support will add valuable nuance.

4. Minor Typographical and Editorial Polish:

- Ensure consistent formatting across figure captions and table footnotes.
- Fix minor spacing/formatting glitches in mathematical equations and text headers.

Final Evaluation and Verdict

This manuscript offers an insightful, empirical evaluation of household vulnerability in conflict-affected border areas of West Africa. The combination of aggregate indices with cluster-based typology provides a practical blueprint for territorial humanitarian targeting.

The manuscript is **accepted with minor revisions**. Incorporating the minor refinements outlined above will ensure the paper is fully polished for publication.