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REVIEWER'S REPORT

Manuscript No.: IJAR-50284 Date: 15/2/2025

Title: STABILIZING CLAYEY SOILS OF CAMEROON'S FAR

NORTH REGION

Recommendation:	Rating	Excel.	Good	Fair	Poor
Accept as it is	Originality		٧		
	Techn. Quality			٧	
	Clarity			٧	
	Significance		٧		

Reviewer Name: Ahmed M. Saqr Date: 15/2/2025

Reviewer's Comment for Publication.

(*To be published with the manuscript in the journal*)

The reviewer is requested to provide a brief comment (3-4 lines) highlighting the significance, strengths, or key insights of the manuscript. This comment will be Displayed in the journal publication alongside with the reviewers name.

The manuscript "Stabilizing Clayey Soils of Cameroon's Far North Region" presents a valuable study on soil stabilization using lime and cement, addressing a critical challenge in geotechnical engineering and road construction. The research provides comprehensive experimental data, demonstrating the impact of binding agents on improving soil properties. The findings offer practical insights for infrastructure development in regions with problematic clayey soils, making it a relevant and impactful contribution to the field.

Detailed Reviewer's Report

I appreciate the opportunity to review your manuscript titled "Stabilizing Clayey Soils of Cameroon's Far North Region. The topic is relevant and important for geotechnical engineering, particularly in addressing soil stabilization issues for road construction. The study provides valuable insights into the effects of lime and cement stabilization on clayey soils, but several aspects require further clarification and improvement. Based on my

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assessment, I recommend major revision before the manuscript can be considered for publication.

Below are my comments and suggestions to enhance the quality of the paper: Comments and Suggestions for Improvement

Abstract:

Clarity and Key Findings: The abstract should be more concise and structured. It currently presents a lot of technical data without clearly stating the major contributions of the study. Consider adding a sentence summarizing the practical implications of your findings.

Introduction:

Literature Review Enhancement: The introduction lacks a comprehensive discussion on previous research in soil stabilization. It would be beneficial to provide a broader review of similar studies conducted in different geographical regions to highlight the novelty of your work.

Research Gap and Objectives: The manuscript should better define the research gap it intends to fill. Why is this study particularly significant in the context of Cameroon's Far North Region? The objectives should also be explicitly stated at the end of the introduction.

Methodology:

Details on Experimental Setup: More information is needed regarding the sample preparation process, curing time for the stabilized soils, and testing procedures. Were the samples tested under controlled environmental conditions?

Standard Compliance: Some testing procedures are mentioned according to ASTM and NF standards, but it would be useful to elaborate on why these specific standards were chosen and if any modifications were made.

Results and Discussion:

Data Presentation: The tables and figures provide useful information, but some require better formatting and explanation. Ensure consistency in units and significant figures across all tables.

Comparative Analysis: It would strengthen the study if the authors compared their findings with results from similar studies in different regions. Does the behavior of the stabilized soil match what has been observed in other countries?

Scientific Explanation of Trends: The discussion on the effects of cement and lime on plasticity index and density needs more in-depth analysis. Why

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does cement have a stronger effect than lime? Consider elaborating on the chemical interactions in more detail.

Images and Figures:

Figure Quality: Some figures (such as Figures 1, 3, and 7) are unclear, and their captions do not provide sufficient information. Please improve the resolution and ensure all axes, labels, and units are clearly visible. Map Enhancement: In Figure 2 (drilling sites map), please add a scale, north direction, and better labeling to improve clarity for readers unfamiliar with the region.

Conclusion:

Key Findings and Implications: The conclusion should be strengthened by summarizing key results and their engineering implications. How do the findings contribute to future soil stabilization projects in Cameroon? Future Work: A brief section on potential future studies should be included. Would field validation of these laboratory results be the next step? References:

Formatting and Completeness: Some references are incomplete or improperly formatted. Ensure all references follow the journal's required citation style.

Recent Studies: The study heavily relies on older literature (e.g., Le Roux, 1969). Including more recent publications in the last five years would improve the relevance of the background research.