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Journal Name:	**American Chemical Science Journal**
Manuscript Number:	**Ms_ACSJ_23071**
Title of the Manuscript:	**Compressed Stabilized Earth Block: A Green Alternative for Non-load Bearing Building Block in Developing Countries like Bangladesh**
Type of the Article	**Original research Articles**

General guideline for Peer Review process:

This journal's peer review policy states that **NO** manuscript should be rejected only on the basis of '**lack of Novelty'**, provided the manuscript is scientifically robust and technically sound.
To know the complete guideline for Peer Review process, reviewers are requested to visit this link:

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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	In this paper, the mechanical and environmental properties of compressed earth blocks stabilized with various compositions of binders (lime and cement) with addition of different soil types as a green alternative for non-load bearing building block in Bangladesh were investigated. The manuscript is interesting in terms of comparison of environmental properties of an alternative blocks to fired clay brick. Greenhouse gas emission, energy consumption and overall cost of production were calculated and compared in order to obtain the relevant data for bricks replacement. In introduction of paper, the authors paid considerable attention to the analysis of production of fire-burnt clay bricks as the main building material in Bangladesh in terms of used fuels and produced amounts of carbon dioxide and particulate matter PM2.5 emissions. Here are described advantages of CSEB technology as alternative to the conventional burnt brick technology. The introduction contains the review of results of works devoted to soils stabilization with cement and lime addition and analyzes the formation of cementitious compounds during hydration in relation to strength parameter. The article is well structured; it contains all key parts of the scientific article. My comments to content of the manuscript, as follows:	
Minor REVISION comments	Abstract Without comments Keywords	

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	Without comments 1. Introduction L20: I would use the term less valuable coal instead of low grade coal. 2. Experimental L152: What does mean manually ground? What limit for fineness was determined? Did you only need to get soil sample in homogenized form? It is necessary to clarify. L153: What is $[Na_3PO_3]_{13}$? L161, 173: I expect some specification of mechanical preparation of soil samples by crushing and grounding as well as compaction conditions in part 2.3. L186: Specify type of UTM and producer. In this part of manuscript, the specification of the calculation (software?) of embodied energy value, embodied carbon footprint and production costs of CSEB products with various binders as well as fired brick is missing. I recommend adding it. 3. Results and Discussion L 201-202, 204, 215, 220, 221: Indicate the unit of strength parameter in MPa. The same goes for figures. L 235, 247, 255: Indicate the unit of strength parameter in MPa. L 335-338: Indicate the unit of strength parameter in MPa. Conclusion Without comments References List of references should contain more recent publications.	

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Optional/General comments	The article is aimed at the characterization of mechanical and environmental properties of compressed earth blocks stabilized with various compositions of binders (lime and cement) in combination with addition of different soil types for non-load bearing building construction in Bangladesh. These blocks represent a green alternative to fired clay bricks as the main building material in Bangladesh. Presently, the use of natural material resources and new technologies producing lower amounts of greenhouse gas emissions, having less energy consumption and costs production has become the hotspot in building materials production in accordance with principles of sustainable development. The manuscript is interesting in terms of comparison of environmental properties of an alternative blocks to fired clay brick. The article is well structured; it contains all key parts of the scientific article and presents new original data. Discussion of the obtained results is relevant and exhaustive. I recommend the authors to take into consideration my comments.	

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