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Shamiso Masuka, Willis Gwenzi, Tungamirai Rukuni



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# Development, Engineering Properties and Potential Applications of Unfired Earth Bricks Reinforced by Coal Fly Ash, Lime and Wood Aggregates

Shamiso Masuka<sup>1</sup>, Willis Gwenzi<sup>1\*</sup> and Tungamirai Rukuni<sup>2</sup>

<sup>1</sup>Biosystems and Environmental Engineering Research Group, Department of Soil Science and Agricultural Engineering, University of Zimbabwe, P.O. Box MP167, Mt. Pleasant, Harare, Zimbabwe

<sup>2</sup>Development Technology Centre (DTC), Faculty of Agriculture, University of Zimbabwe, P.O. Box MP167, Mt. Pleasant, Harare, Zimbabwe

wgwenzi@yahoo.co.uk

wgwenzi@agric.uz.ac.zw

\*Corresponding author: Biosystems & Environmental Engineering Research Group, Department of Soil Science and Agricultural Engineering, University of Zimbabwe, P.O. Box MP167, Mt. Pleasant, Harare, Zimbabwe.

## Abstract

The current study developed and evaluated the engineering properties of improved low-cost UEBs reinforced with various lime (L)-coal fly ash (F)-wood aggregate (W) mix ratios. The objectives were; (1) to determine the effects of lime-coal fly ash-wood aggregate mixtures on mechanical strength and water resistance properties of UEBs; and (2) to determine the comparative cost of the improved UEBs to that of the control (10% cement). Four UEBs with various lime (L)-coal fly ash (F)-wood aggregates (W) mix ratios (L4%-F16%-W1.5%; L4%-F16%-W3%; L8%-F12%-W3%; L10%-F10%-W1.5%) were fabricated and their engineering properties compared to those of unstabilised (negative control) and 10% cement stabilized

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