

Abstract

Malawi has embarked on an economic growth strategy in order to meet the Millennium Development Goals by year 2015. In its strategic plans; infrastructure development has been marked as one important factor for achievement of the stated goals (MGDS II). However, Malawi's continued use of burnt bricks (BBs) as the main material for the development of infrastructure for schools, health and other amenities, which enhances unsustainable consumption of natural resources, has been a cause for concern for the Ministry of Environment and Climate Change

This paper therefore, examines the possibility of Stabilized Soil Blocks (SSBs) as alternative building materials towards mitigating climate change impacts. The study was conducted in seven nursing colleges under Christian Association of Malawi (CHAM) where construction was done using SSBs. Data for the study was collected through questionnaire, interviews, calculations, measurements, reference and inferences during desk reviews and interaction with various stakeholders.

The findings of the study show that SSBs have a higher advantage over burnt bricks as regards environmental management. Stabilized soil blocks do not use any firewood in the production process and therefore has 100% potential of avoiding deforestation and CO₂ emissions into the atmosphere. This leads to protection of the Ozone layer for better earth life support systems and promotes regeneration of the natural environments. The findings also show that SSBs have a double economical efficiency over the burnt bricks for their regular sizes and shapes unlike burnt bricks that come in different sizes, shapes and quality that result in uncontrolled breakages. SSBs also contribute to social aspects regarding safety, improved accessibility, and aesthetics of the environment. Subsequently, the paper recommends that Ministry of Environment and Climate Change should consider adopting SSBs as an alternative material for future infrastructure development in Malawi to reduce negative environmental impact through carbon emission and attain sustainable development