

Bamburi Cement Limited, building a sustainable future

During its over 61 years of existence in the region, Bamburi Cement has always endeavored to produce not just quality building materials, but to do so in a manner that is sustainable in the long term.

At the heart of its founding ethos and day-to-day operational guidelines, the firm, a member of the global category leader LafargeHolcim, has always sought to do business in a manner that not only promotes the socio-economic development of communities, but also underwrites the survival of our planet in its most pristine and productive form. This is achieved through a number of initiatives, which are not just pursued to tick a box but are at the very core of Bamburi's operations in its entire value chain, from quarry to site.

Producing green cement
Cement production is a heavy duty, high-energy process. It is inevitable that such a process would have an effect on the environment. Bamburi's approach here has been to, as much as possible, reduce

the consumption of clinker as a component in cement production as a way of reducing carbon dioxide emissions in the process. Clinker is produced by burning certain raw materials like limestone, a process that releases carbon dioxide. To reduce this, Bamburi uses what are known in the industry as extenders, like pozzolana. These are mixed and ground together with clinker. The other approach is the use of environmentally friendly industrial waste from other industries, such as fly ash from coal power plants and slag from iron ore processing. But this is limited by the constrained capacity of these industries in the region.

Fuelling alternatives
At the Company's plants, they have always actively sought and used alternative sources of fuel as opposed to fuel oil, to fire the kilns and generate the heat required in cement production. Rice and coffee husks, waste tyres and contaminated maize are some of the substances they use. This helps it to diversify oil sources, reduce fuel costs and reduce carbon emissions, while reducing its dependence on traditional fuels. Local communities also benefit from

a new income stream and better waste management.

Plant over fossil fuels
Bamburi's biofuel project has been active since 2006, when it took off in Mombasa at Vipingo and Diani. Using its vast reserve in these areas as the base, the company has partnered with local communities to establish tree plantations for fuel. From these, it produces wood to fuel the kilns instead of fossil fuels, thereby reducing carbon emissions and reducing fuel costs. The locals have benefited through the creation of jobs and the attainment of food security, thanks to a professionally managed *shamba* system. They have also received training in seedling development and nursery management, and are

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currently supplying not just our needs but the neighboring community's too.

Giving life to quarries
But perhaps the poster for Bamburi Cement's green culture is to be found at Haller Park, where concerted conservation and decades-old environmental sensitivity by Bamburi Cement have produced a globally-acclaimed ecosystem out of the barrenness of a disused quarry. Haller Park's diverse flora and fauna, resident in its forests, grasslands and ponds have evolved into a tourism and study attraction, chalking over 160,000 visitors annually. Today, the park, whose awards and accolades are legion, consists of a game sanctuary, a reptile park, fish farm, palm garden, crocodile pens and a giraffe viewing platform.

Cement stabilized earth blocks
Urbanization challenges in emerging countries require construction techniques and products that are: Innovative, sustainable and benchmarked to traditional techniques. LafargeHolcim has developed green cement and adapted the technique of mixing earth and cement to offer a novel approach

to the production of sustainable compressed stabilized earth bricks - CSEBs. The input of cements in green infrastructure is not well understood. Modern cements are holistically green cements and play an important role in environmental sustainability - production of low CO2 emission cements; Consumption of wastes generated by other industries; Use of alternative fuels e.g. tyres; Use of bio-fuels and in quarry rehabilitation. The development of this innovation approach of cement stabilized earth blocks dovetails well with our agenda. This innovative technology has been used successfully in Malawi, and based on this experience, we have held initial capacity building sessions with identified potential contractor partners in Kenya. The production of CSEBs involves the use of local materials; earth, water and sand, and typical use of damp mix - low water content. The key outcome is that for environmental sustainability - no firewood, green cement (low CO2 emission), there is 60% water fuel consumption and ultimately, the engagement and mobilization of local community in technology transfer.

With a little imagination, we can build a better world

For over 61 years, Bamburi has produced the most trusted Cement in Kenya, known for its undoubted strength and undisputable quality. Bamburi Cement's focus and dedication to our customers makes us the cement of choice for small to large projects, providing innovative construction solutions for individual home builders and for major infrastructural projects including the Standard Gauge Railway and the Kenya Ports Authority.



Bamburi Cement provides the WIDEST and most INNOVATIVE range of Cement and Concrete Solutions.

