

# Cement producers battling cheap imports

Forward-looking cement producers in the region are investing in environmentally friendly grinding plants to become more competitive

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**B**attling competition from cheap imports as well as demands for environmentally friendly production, East Africa's cement industry has to find survival strategies. In particular, technology can help cement the industry's future by enhancing regional firms' competitiveness and sustainability.

The rapid increase in construction of infrastructure and real-estate projects has over the past years led to increased demand for quality cement brands within the region. This has in turn attracted new entrants into the market thereby increasing competition in product quality, pricing and innovative production processes.

The proliferation of inexpensive imports mainly from China, India, Pakistan has exerted pressure on cement prices as local firms struggle to win customers who already have the option of buying imported cement that sells for a fraction of the locally manufactured products.

Producers have in the recent past complained that, although East Africa is enjoying a construction boom, cement importation had narrowed their market.

Regional cement producers, including ARM Cement and Lafarge, late last year asked the Kenya Railways Corporation to explain why the Chinese-backed Standard Gauge Railway project is importing duty-free cement.

Even as the importation debate goes on, far-looking cement producers in the region are investing in environmentally friendly grinding plants to become more competitive.

On their part, regional governments have the onus of developing direction and policy in relation to the promotion of technological change in the cement industry and the achievement of advances in emissions reduction and greater industry sustainability.

Investment in new technology is highly capital-intensive and must be justified by market and business conditions.

Cement is the "glue" that binds concrete and as such has been intrinsic to the built environment of modern society. Few could imagine a world without concrete in its many shapes and forms, and the global demand for it is not likely to diminish. However, cement manufacturing is a process that requires accurate chemical and



**Cement production is energy intensive and needs efficient technology.**  
Picture: File

physical control that is energy-intensive and produces high levels of greenhouse-gas emissions—features which make it a prime target for embracing technological innovation.

Also, substantial electrical energy is used in cement manufacture to power motors for fans, drives, and damper controls, and to transport material around the production site. The most significant power demand is for the grinding of materials in large mills.

Recognising that manufacturing cement has a negative impact on the environment, the industry has to implement mitigating ac-

tions through higher standards of technology, while continuing to supply affordable, versatile, quality construction material and a range of employment opportunities.

Sustainability and environmental concerns have been key considerations for the cement industry in recent years.

The cement industry recognises that adopting new processes and practices is essential to the sustainability of the industry, both economically and environmentally.

However, introducing these processes and practices requires a series of technical, legislative, commercial, risk reduction

and community issues to be addressed. To capitalise on the early-action benefit that cement manufacturing can offer to use waste materials, decisions need to be made quickly and frequently using flexible regulatory frameworks enabled by government.

The use of cement material in construction is extremely widespread and varied.

The pre-mixed concrete industry uses the greatest volumes of cement in applications such as: concrete slabs and foundations for buildings, roads and bridges; pre-cast panels, blocks, bricks and roofing tiles; fence; construction of flood water channels, reservoirs, dams and tanks.

Cement is also used in bulk quantities in other diverse applications such as: stabilisation of roads and open-cut rocky surfaces; and backfill mining operations.

Cement can be adapted for specific conditions; for example, to resist sulfate attack, or to meet specific performance needs, such as high early strength or low heat evolution, and architectural needs.

Cement manufacture is highly energy-intensive, leading to significant energy-related and process carbon emissions—energy costs represent 30 to 40 per cent of the

cost of cement production.

Hence there is much scope for the industry to introduce new technologies to reduce costs, conserve energy, and reduce emissions. The impetus to act is driven both by economic and environmental factors. With growing concerns about the global impact of greenhouse-gas including carbon dioxide emissions, there is strong international pressure on all industries to act in this area.

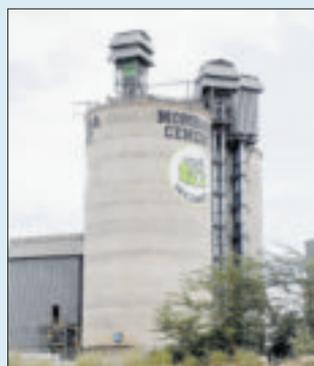
There are many aspects of cement manufacture to which new technologies can be applied. Technology adoption can lead to: increasing efficiency; reducing costs, production of waste, and emissions—including those of greenhouse gas; and making use of alternative fuels, raw materials and substitutes for clinker and cement.

Among pioneers of environment friendly cement production technology in East Africa is Bamburi Cement. This firm is East Africa's leading cement producer with an annual capacity of 2.3 million tons. It is a member of Lafarge Group - the world's largest building materials supplies group. Bamburi is one of the most technologically advanced yet environmentally responsible cement producers in Africa.

## Challenges

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**Local producers are going green to be competitive**