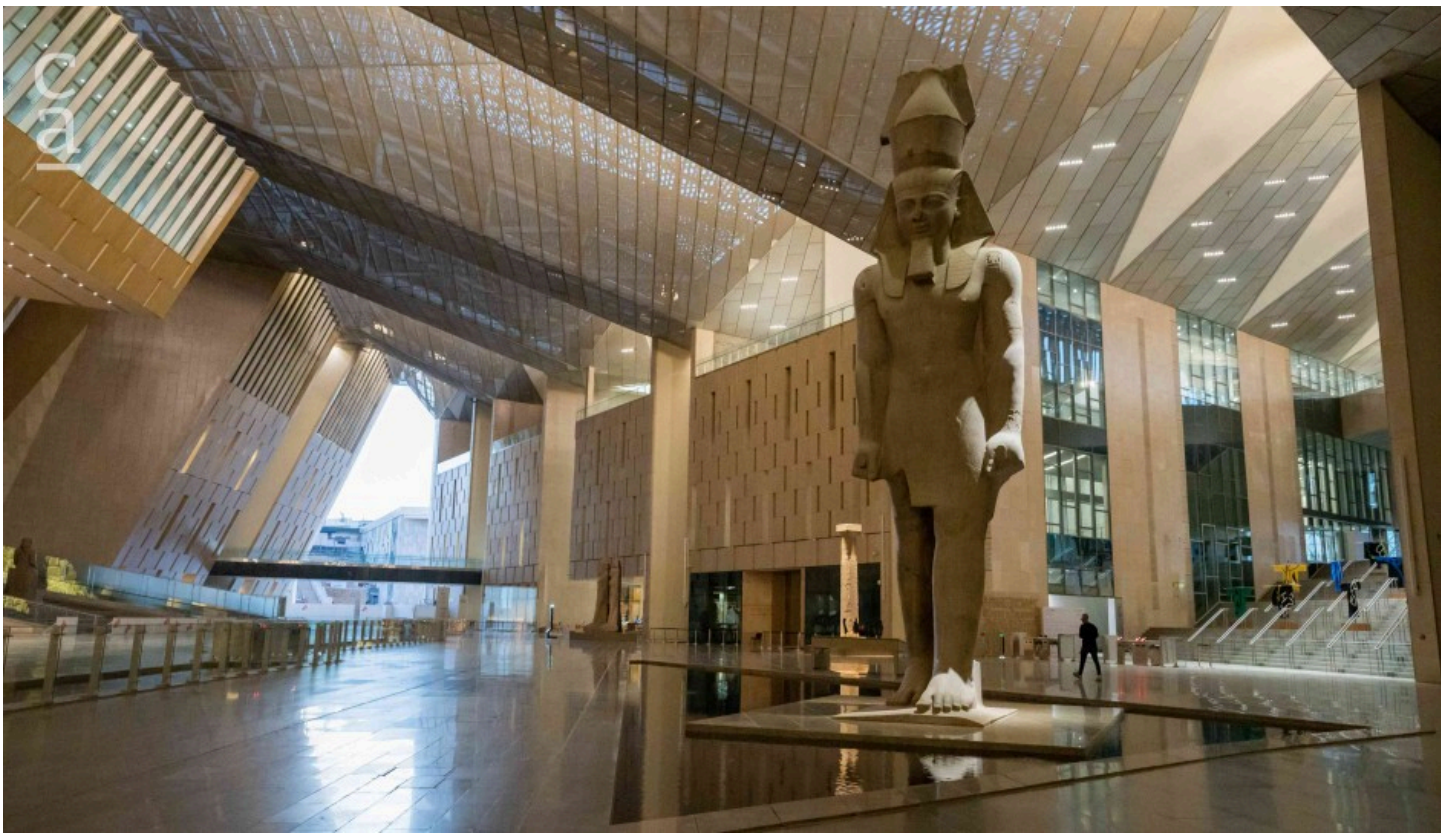

All Africa

Africa Focuses On Sustainable Construction

About 10 million square metres of floor space on the continent has been certified green.

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By Sneha Abraham

5 MIN READ

The African continent is making strides in its sustainable construction journey, spurred by the need to address population growth, rapid urbanisation and climate-related challenges.

In late April, the IFC announced its Excellence in Design for Greater Efficiencies (EDGE) buildings certification programme had reached a milestone of 10 million square metres of green-certified floor space on the continent.

The programme was launched in 2015 by the IFC, with the aim of transforming the green building landscape globally – more than 100 million square metres of floor space has been certified across the world so far.

EDGE provides a measurable way for developers, builders and asset owners to optimise designs for new builds and retrofits, ensuring a minimum 20% reduction in direct energy consumption, water use and embodied carbon in materials compared to conventional buildings.

EDGE is a globally recognised standard with third-party certification, ensuring transparency and credibility. It is one of three prominent green building certifications applied in Africa, the others being Leadership in Energy and Environmental Design (LEED) by the US Green Building Council and Green Star by the Green Building Council South Africa.

In Africa, South Africa hosts the largest amount of EDGE-certified floor space, at 6.5 million square metres, saving more than 200GWh annually in energy, while EDGE-certified buildings across the African continent save more than 382GWh a year.

The continent features more than 53,000 EDGE-certified housing units (including individual apartment units and free-standing homes), with water savings of more than 9.4 million cubic metres a year, 6 million of which have been contributed by South Africa.

In addition, Africa has recorded embodied carbon savings in materials of more than 6.1 million tonnes of CO2 equivalent (equal to taking more than 1.5 million cars off the road each year), 5.3 million tonnes of which have been contributed by South Africa.

Speaking to *ConstructAfrica*, Lenore Cairncross, IFC Edge's green building lead for Africa, notes that while South Africa has certainly been a major success story for EDGE in Africa, the programme has experienced significant growth in other countries, with considerable potential for the future.

"This year, we surpassed 1 million certified square metres of EDGE floor space in Kenya, and have made substantial strides in Western Africa as well, with Cote d'Ivoire, Senegal and Ghana combining for nearly 2 million square metres, alongside nearly 1 million square metres in Nigeria," says Cairncross.

The Aga Khan University building in Nairobi, Kenya, has received EDGE Advanced certification and is designed to be naturally ventilated, reducing energy consumption
Source: IFC

“In Northern Africa, we have worked with partners and certifiers in Egypt, which is nearing 1 million square metres certified, on some major projects, including the incredible Grand Egyptian Museum property in Cairo, certified as EDGE Advanced in [February] 2024."

Through a resource-efficient and climate-smart design and construction, the museum, which has a site area of 0.5 million square metres, can save more than 60% in energy costs and reduce water use by 34% compared to a conventional building of its type and size.

Sustainability measures include a reflective roof, external shading for thermal comfort, resource-efficient lighting and water fixtures, in addition to the use of smart meters for energy consumption. These measures translate into energy savings equivalent to removing over 400 gasoline-powered vehicles from the streets of Cairo for one year and water savings equivalent to 63.4 million litres of Nile River water annually.

Apart from these countries, the IFC Edge team is bullish on growth prospects in other African countries.

“The EDGE app is customised to a local baseline, making it convenient to assess resource efficiency in buildings anywhere in the world,” says Cairncross. “We hope to continue to develop in key emerging markets including Rwanda, Tanzania and Zambia, as well as other areas where we see strong potential like Morocco, Mauritius and Mozambique.”

According to Cairncross, a growing number of developers and investors in Africa's construction sector are recognising that green buildings can be delivered at prices comparable to those for conventional buildings, along with the benefits of cost savings and efficiencies from lower energy and water use.

"We've seen a rise in the number of affordable homes becoming EDGE-certified, which means the trend is going in the right direction," she says.

The Crystal USG housing project, located in Dakar, Senegal, has received a preliminary EDGE Advanced certificate

Source: IFC

Cairncross notes that the perception that green buildings are inherently more expensive is being overturned by growing market experience, consumer demand and smart design choices.

"Developers are finding that by prioritising passive design, efficient materials and locally sourced solutions, they can meet green standards like EDGE within reasonable costs," she says.

"In many African markets, the cost difference is now minimal and quickly recouped through lower utility bills, better access to green finance and faster sales or leasing cycles. Digital tools like the EDGE app also streamline the design and certification process, further reducing cost barriers."

The future of green construction in Africa is bright, according to the Edge team, with clients recognising the need for smart development. "With rapid urbanisation and growing natural hazards, a lower-carbon built environment will be crucial for building resilient, resource-efficient cities and contributing to thriving local economies, while delivering cost savings and new jobs," says Cairncross.

The key drivers of sustainable construction are expected to include policy and regulatory partnerships; continued expansion of finance, with banks and development finance institutions (DFIs) offering better terms for certified projects; and, perhaps most critically, according to the team, country-level champions for certification who can demonstrate the value of sustainable development.

“Another aspect that is important for transforming the landscape is increasing capacity building and empowering women to have green building expertise and to be included in technical and decision-making roles,” notes Cairncross.

According to a late January report titled ‘Pathways to Prosperity: Sustainability in Africa’ by real estate consultancy JLL, the biggest opportunity for the continent lies not just in sustainable real estate but real estate as a whole. Africa, the report argues, could see a significant influx of capital into the real estate sector if it can better align with global ratings and taxonomy.

According to the report, while Europe has taken the lead on sustainability in the built environment, Africa’s relative proximity, its abundance of natural resources and its ability to provide unique social impact solutions within an environmental, social and governance (ESG) framework, provides an opportunity to present African real estate more competitively on a global stage.

Top photo: Grand Egyptian Museum (Source: Museum)

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