

# Green buildings, fit for a sustainable purpose

 By [Alison Groves](#)

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According to the latest [United Nations Economic Commission for Africa report](#), Africa is the fastest urbanising region after Asia. The report also highlights that despite the current slowdown in many African economies - on the back of the downswing in global commodity prices - the long-term prospects for the continent are still favourable, but that these prospects will mainly be influenced and fashioned by how continued rapid urbanisation is managed across the region.



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With this in mind, scientists have indicated that climate change is “powered” by carbon emissions generated by primarily first world countries, however, African states are more sensitive or vulnerable to the impact of climate change. This is largely as African states don’t have access to vast financial resources and governments face incredible pressure to balance their spending on much needed primary and secondary infrastructure development, with mitigating the effects of climate change, for the benefit of the populous. It’s hardly surprising then that green building or building for sustainability is increasingly becoming integral in the design and construction of building in many parts of Africa.

In line with this, there are three notable trends in the green building space. These include:

## Building for resilience

Resilience has become a bit of a buzzword when we refer to designing and building to mitigate the adverse effects of climate change, however, a key question here is “can we help societies thrive in a world we do not control?”

The key for smart developers is to aspire to incorporate climate responsiveness and “designing within constraint” concepts when developing buildings. In doing so, it is easy to recognise that building for sustainability better enables the development to leverage on the power and water resources that are available, which also makes good business sense.

Added to this, there is rapidly growing social consciousness to the importance of resilience and the need to safeguard and manage critical resources in a more sustainable fashion. This maturing social consciousness is driving a mindset change among savvier consumer – businesses and/or citizens, as the primarily targeted tenants of commercial and residential spaces – towards being more “green” or environmentally friendly. Where green buildings enable these consumers to reduce their consumption, which in turn also increases the propensity to reduce the carbon emissions emitted by these developments and provide increased resilience to uncertain service delivery. These are significant value-adds to savvy consumers – and what benefits these consumers also benefits the developer/owner. As a result, we can expect that architects and consulting engineers will continue to be tasked with coming up with alternative and cost-efficient building designs to offset energy and water consumption, reduce carbon emissions and improve the overall operational efficiencies of new building projects.

## **Growing business opportunity in urban renewal**

While demand for green buildings continues to grow, these will not replace the importance of existing urban and city centres. In fact, new building projects only represents a small portion of the entire built stock from 2010, which means there is an even greater opportunity in refurbishing the existing built stock with green principles – keeping energy efficiency top of mind. This form of urban renewal can take place in different forms such as – but not limited to - corporates establishing campuses around their head offices, or retro-future proofing old city centres – and through the inclusion of renewable energies and biological processes.

Some cynics might argue that refurbishments are costly and do not make economic sense. Yet, there is actually a strong business case for implementing energy efficiency measures. It is important to evaluate the full life cycle costs of any intervention. If specified and installed correctly, systems and structures can produce a sustainable return on investment (ROI) that can amount to between 20-70% of energy and gain revenue through this investment.

## **Green urbanism for smarter, greener precincts and cities**

Out of the box, a green city is a complex undertaking for any economy – whether developed or emerging. While many regions across Africa continue to experience rapid urbanisation, space limitations and strains on existing infrastructure in urban nodes - not to mention that several of the industrial drivers behind these economies, like mining and agricultural activities, are generally located away from urban areas - is driving a movement towards green urbanism.

We need spaces that will seize opportunities to connect communities and nurture societies sustainably and for the future – and green urbanism is the practice of creating spaces that are beneficial to society and the environment. It's about promoting mixed-use urban developments that bring residential neighbourhoods, retail and commercial parks back together into a smarter, ergonomic city-type environment that is future-proofed and sustainable. New approaches to green urban mix-used developments also offer vast opportunities to tap into previously excluded property markets in outlying or more rural areas across Africa.

When sustainability is kept top-of-mind as a crucial aspect of every design endeavour - from technology specification to materials selection and labour practices etc. – the potential and the results are extraordinary, and market leaders amongst the developing countries in Africa are achieving great strides. As more nuanced initiatives continue to emerge and mature, so too do opportunities to effect positive change and make a difference in fostering and supporting a green economy through every project and business initiative.

## ABOUT ALISON GROVES

Alison Groves is regional director at WSP in Africa. Groves has been involved in the 'green' movement in South Africa since its inception in 2007 and is a Green Star accredited professional.

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