KMRC
KENYA MORTGAGE REFINANCE COMPANY

RESEARCH INSIGHTS REPORT ON GREEN MORTGAGES

ISSUE 6 – DECEMBER 2022

EXECUTIVE SUMMARY

- Study conducted by Institute of Management Transformation in 2020 finds that energy efficient homeowners are 32% less likely to default on their mortgage payments.
- Tout ensemble, there is likelihood that banks can offer more favorable terms, such as, lower interest rates to owners of green buildings if they have a lower score in probability of default
- Availability of green mortgages also puts the energy efficiency and sustainability agenda at the fore front in early stages of property development.
- Africa is expected to be hardest hit by the adverse impacts of climate change in the absence of a significant scale-up of investment in mitigation, adaptation, and other relevant initiatives.
- According to IMLA research 2020, several factors triggered borrowers to take out the mortgage, Saving money on energy bills was in fact cited as the biggest driver behind the preparedness to take out a green mortgage by 53% of consumers
- Buyers have a mixture of practical and aspirational motivations, with 39% stating that the prospect of future of environmental reduction impacting the value of their homes would influence their decision to buy a more energy efficient property.

- Africa has a population of 1.4 billion (2022) with the population expected to hit 2.5 billion (2050) – 26% of World's total; Urban population is at 44% of the total population as at 2020 and is expected to hit 60% by 2050 presenting opportunities for green investments to mitigate the ripple effects of rural urban migration
- 60% of people in Africa live in informal settlements – poor housing, sanitization, solid waste management, air quality eliciting the green mortgages conversation.
- Of the green bonds issued to date, energy has the largest Use of Proceeds (UoP) allocation (KES121,524m, 47%), followed closely by buildings (KES101,106m, 42%) and water third (KES121,883m, 5%) availing an opportunity to explore green mortgages
- Real estate contributes up to 39% of global annual greenhouse gas emissions

- By 2030, Kenya's GDP could be 12% higher by taking a green growth pathway than continuing a business-as-usual scenario according to Kenya's 2014 Green Economy Assessment report
- Kenya's mitigation and adaptation actions seek to lower greenhouse gas emissions by 30% by 2030
- The popularity of green building technologies in Kenya is rising, with more stakeholders opting for green or environmentally sustainable architecture in housing development
- The country's 2019 Population and Housing Census revealed that 19.3% of Kenyan

homes used solar power indicating a high sense of the populace towards green energy in powering buildings hence the unexplored market.

- An overwhelming 71% of Africans indicated that energy efficiency was very important to them compared to 42% globally ~ Knight Frank's 2021 Global Buyer Survey
- According to a survey by Knight Frank, more Africans (29%) would prefer a greener home and are willing to pay more for it compared to 27% globally informing on green mortgages.
- ESG – Environmental, Social and Corporate Governance is taking precedence over other considerations for African home buyers.
- First time buyers and homeowners gravitating towards top quality homes, with amenities such as access to green space and reliable high-speed digital connectivity topping considerations at 64% and 72%.
- Interestingly, rightsizing emerged as the key feature in future buying intentions with 22% of the African population citing upgrading family's primary residence as the main motivation towards buying a house.
- Data shows people spent 90% of their time in buildings eliciting the quality home conversation hence green mortgages.
- Shelter Afrique has committed to certifying 4,416 affordable housing units with EDGE, a global green building certification system, in line with its 2021-2025 corporate strategy.
- The UK has made investments in Kenya to build 10,000 new green homes that are accessible for many low-income households expanding the market for green mortgage loans.

GREEN MORTGAGES INSIGHTS

According to Knight Frank survey 2021, green finance has been gaining traction since the signing of the Paris Agreement in 2015 with more than 100 countries have pledged to meet net-zero carbon emission targets.

IFC Edge Certification study in 2022 shows that 22 green building covering 374332 m2 save at least KES 585 million annually on electricity bills for public holdings by using 20% less energy than conventional buildings.

Africa is expected to be hardest hit by the adverse impacts of climate change if significant investments in mitigation and adaptation, as well as other relevant measures remain insufficient according to Centre for Affordable Housing Finance in Africa report in 2020.

Africa has a population of 1.4 billion (2022) with the population expected to hit 2.5 billion (2050) – 26% of World's total; Urban population is at 44% of the total population as at 2020 and is expected to hit 60% by 2050 presenting opportunities for green investments to mitigate the ripple effects of rural urban migration according to UN report in 2022

60% of people in Africa live in informal settlements – poor housing, sanitization, solid waste management, air quality. In Kenya, many people (45%) live in informal or inadequate dwellings and 83% of households are without access to basic waste collection services which calls for intervention to encourage developers to embed sustainability in their properties with a focus on housing impact presenting an opportunity for green mortgages.

The popularity of green building technologies in Kenya is rising, with more stakeholders opting for green or environmentally sustainable architecture in housing development. According to a survey by Knight Frank in 2021, 29% of home buyers in Africa prefer green homes and do not mind the extra costs indicating an affinity towards green housing.

The country's 2019 Population and Housing Census revealed that 19.3% of Kenyan homes

used solar power indicating a high sense of the populace towards green buildings hence the unexplored market.

The popularity of green building technologies in Kenya is rising, with more stakeholders opting for green or environmentally sustainable architecture in housing development according AAK building environment report and Knight Frank, 2021. Another survey by KGBS estimates that 19.3% of Kenyan homes use solar power, indicating an affinity towards green housing.

Of the green bonds issued to date, energy has the largest Use of Proceeds (UoP) allocation ($988m, 47%), followed closely by buildings ($822m, 42%) and water third ($116m, 5%).

There is a positive trend in green bond issuance in emerging/developing countries highlighted by an increase in issuance by 21% in 2020 with a 1/3 of the proceeds towards buildings which informs green mortgages

The transition towards carbon-neutrality and environmental sustainability will reduce the negative impacts of climate change, amongst poor communities

The Vision 2030 plans to reduce greenhouse gas emissions by 30% of the current levels by 2030

By 2030, Kenya's GDP could be 12% higher by taking a green growth pathway than continuing a business-as-usual scenario according to Kenya's 2014 Green Economy Assessment report

Many people in Kenya (45%) live in informal or inadequate dwellings and 83% of households are without access to basic waste collection services which calls for intervention to encourage developers to embed sustainability in their properties with a focus on housing impact presenting an opportunity for green bonds investments

The popularity of Green Building technologies in Kenya is rising with more stakeholders opting for a green or environmentally sustainable buildings with 29% of homebuyers in Africa prefer green homes which cut costs associated with energy use, water use and maintenances as per Knight Frank report 2021

The Kenya Economic Report 2021 estimates that only 2% of the formally constructed housing units are targeted at the low-income population and the development of green properties could lead to a paradigm shift.

GROWTH AND DEMAND OF THE GREEN MORTGAGES

Green mortgages are new products, and the market is still in its infancy. There have been several developments in the green finance space that illustrate both the government's commitment to creating more energy efficient homes and the willingness of the finance industry to embrace its role in delivering global and climate change objectives. Lenders are now offering incentives nationwide to encourage energy efficient home purchases.

According to research by Intermediary Mortgage Lenders Association in 2020, 3 in 10 mortgage lenders have already launched or intend to launch a green mortgage product. For example, Barclays are offering customers the potential for lower rates on some fixed rate deals, for those buying certain new homes with an EPC rating of A or B. Kensington Mortgages is giving £1,000 to borrowers who improve their property's energy rating within a year of buying the home or remortgaging with customers needing to improve their home's energy efficiency rating by 10 points to qualify.

According to data from the International Renewable Energy Agency, Solar power costs have fallen by 80% since 2010. The figures further indicate that between 2018 and 2019, the price of solar power fell by 13%. The country's 2019 Population and Housing Census revealed that 19.3% of Kenyan homes used solar power.

The United Kingdom (UK) is set to develop 10,000 green affordable houses in Kenya. This follows a US $48M commitment made by the UK Climate Investments (UKCI) and FSD Africa Investments (FSDAi) towards a Kenyan green affordable housing venture.

Foundation Home Loans England research shows 67% of residential borrowers would consider a lower mortgage rate based on their property's Energy Performance rating an appealing element when looking at product features.

Research from Lawrence Berkeley National Lab and Berkeley's Haas School of Business demonstrates that the more energy used per square foot in a commercial building, the higher the likelihood of mortgage default. Given this increase in default risk for high energy-consuming buildings, researchers say, lenders should finance energy efficiency measures along with other building improvements during renovation

or rehabilitation, and these green mortgages should be preferentially priced. But multifamily mortgage lenders have been slow to pursue increased energy efficiency in buildings as a risk management approach – Energy efficiency for all research.

The survey conducted by the Intermediary mortgage Lenders Association (IMLA) in 2020 shows that the nascent green mortgage industry is growing despite lack of awareness among the consumers, both lenders and brokers are optimistic about the growth of the green mortgage sector in the future. It also found that about 74% still expect demand for green mortgages to grow over the next few years, with 83% expecting the ability to save money on energy bills as being the biggest driver behind market growth.

Mortgage brokers responding to the survey said they also expect to see an uptick in the number of borrowers taking out green mortgages, with 58% saying they expect demand for the products to grow in the next few years.

This is in line with the findings that more than a third (35%) of brokers in the developed economies plan to advise on these products more often in the future, compared to 2% currently. It is also reflective of the fact that a combination of factors such as an increased number of lenders offering green mortgages, government initiatives such as the Green Homes Grant Scheme and increased funding are likely to create greater awareness of Government's efforts towards greening.

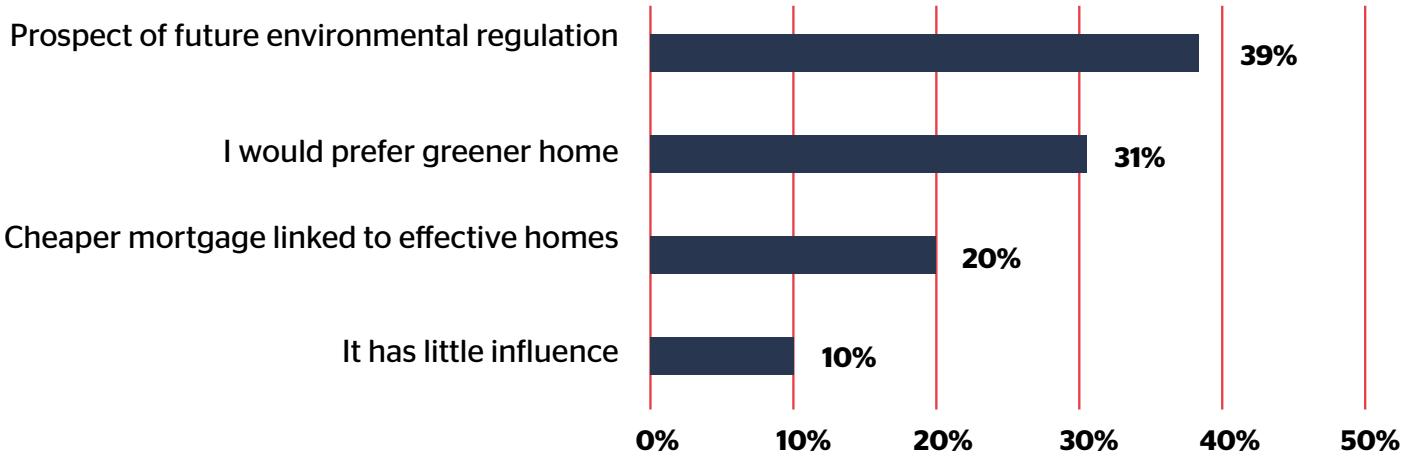
Kenya is making progress in building green. According to a report published by the International Finance Corporation (IFC), the World Bank Group's subsidiary, buildings certified as EDGE (Excellence in Design for Greater Efficiencies) save at least $5 million (KES 585 million) on their electricity bills each year. In 2020, the Kenyan government, through the Department of State for Housing and Urban Development, committed to providing land for developers to build resource-efficient housing, similar to the requirements of Edge certification. This IFC certification aimed to reduce the environmental impact of buildings through the reduction of direct energy consumption, water consumption (through the installation of low flow taps or the implementation of wastewater management systems) and the embodied energy consumption of building materials.

As a result of achieving a greener economy, the government of Kenya has explored diversification of policy and financial instruments such as green bonds and eco-taxes. Kenya is currently the only state which provides fiscal incentives for issuing infrastructure bonds (Kidney 2019; LSEG Africa Advisory Group 2018).

The Ministry of Environment and Natural Resources formulated the Green Economy Strategy Implementation Plan (GESIP) 2016 to 2030 which proposes to promote sustainable infrastructure with the objective of promoting sustainable design, construction and maintenance of buildings with the main goal of ensuring 75% of new and renovated large-scale building in Kenya are green by 2030.

In addition, GESIP will develop and implement certification standards for green buildings and strengthen the skills of all the construction industry players on green technologies in the construction sector.

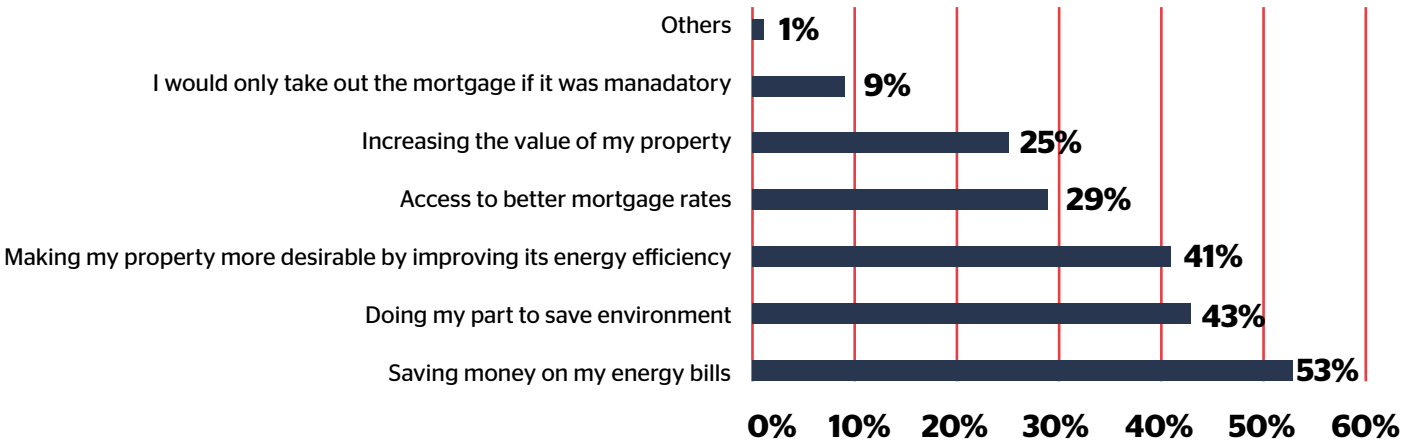
Factors behind homeowner taking out a green mortgage



Source: Refinitiv Workspace 2021, IMLA 2020

Buyers have a mixture of practical and aspirational motivations, with 39% stating that the prospect of future of environmental reduction impacting the value of their homes would influence their decision to buy a more energy efficient property.

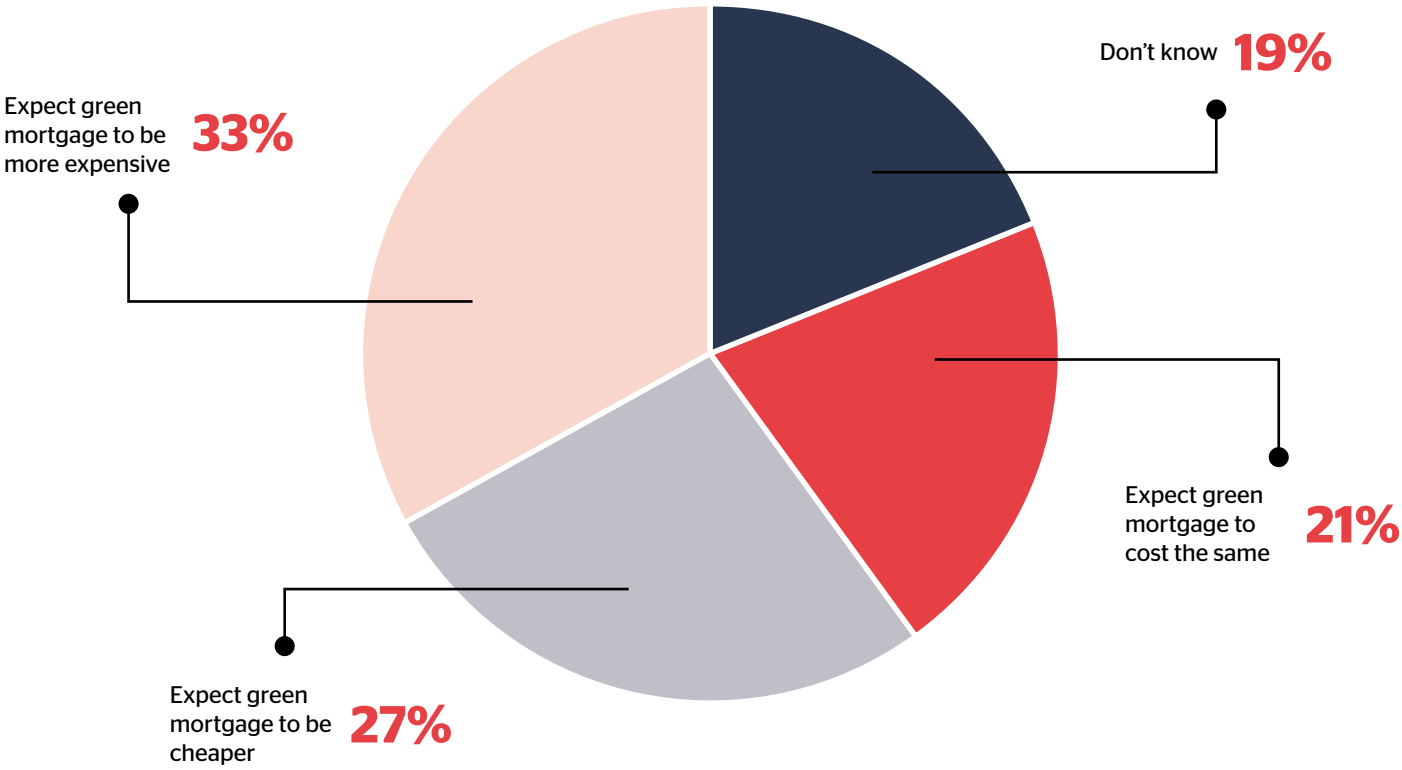
Drivers behind homeowner taking out the mortgage



Source: Refinitiv Workspace 2021; IMLA 2020

According to IMLA research 2020, several factors triggered borrowers to take out the mortgage. Saving money on energy bills was in fact cited as the biggest driver behind the preparedness to take out a green mortgage by 53% of consumers. However, 43% of the borrowers like the idea of becoming green as their lifestyle. The survey shows that 41% of the borrowers plans to make the property more desirable by improving its energy efficiency and 9% could apply for the mortgage if it meant to increase the value of the owner's property

Expectation of the cost of Green Mortgage



Source: Refinitiv Workspace

From the data above, 19% of the borrowers have no information on the existence of green products on the market. Interestingly, when it comes to the costs associated with taking out a green mortgage, a third of consumers (33%) said they would expect the products to be more expensive than a typical mortgage offering, while one in five (21%) said they expect the green mortgage to cost the same. However, only 27% of the borrower expects the costs of the green mortgage to be cheaper.

Progress made by Primary Mortgage Lenders on Green financing

To support the global move towards a greener future, lenders are increasingly seeking ways to promote environmentally friendly means of lending, such as the provision of green financing.

KCB

Despite of the unprecedented challenges in 2020, KCB has proved resilient towards greening by disbursing KES 336 billion loans in the last two years for projects that are eco-friendly as the lender deepens its push for sustainable finance. The funds have catalyzed the growth of climate finance in Kenya and increased liquidity in the secondary market allowing the energy mortgage to move from obscurity to slowly gaining market awareness and acceptance.

KCB inked a deal with IFC to help catalyze the growth of climate finance in Kenya. They secured a loan of KES 18 billion ($150 million) to support its lending to eco-friendly ventures in September 2022 with a maturity period of seven years and grace period of two years. Initially the lender had secured a loan of KES27 billion ($225 million) from IFC taken up in 2018 and 2020. The new loan will take KCB groups borrowing from IFC to KES45 billion cumulatively. According to the agreement, the proceeds is meant to support the green mortgaging funding programs.

As a result of going green, KCB has signed membership with Net Zero Banking Alliance (NZBA) committing to align its lending portfolio with eco-friendly projects towards achieving net zero carbon emission by 2050.

Co-operative Bank

Co-operative bank inked a loan portfolio guarantee agreement with the African Guarantee Fund (AGF) in September 2021 for Small and Medium-sized Enterprises amounting to KES750 million. The bank says 750 million will enable it to support more emerging green energy and solar installation projects and also strengthen its commitment to financing Micro, small and medium sized enterprises (MSMEs). The banks aims for economic growth without degrading the environment. Sustainability improves the quality of our lives, protects our ecosystem and preserves natural resources for future generations (Cooperative Bank, 2021). Good Home Mortgages is the arm of Co-operative Bank that provides affordable mortgages with various features that are tailored to suit individual and corporate needs as well as make loan repayments more comfortable.

ABSA Bank

Absa Bank was recognized as first bank to join the Kenya Green Building Society for its efforts in conserving the environment and reducing its carbon footprint through initiatives such as the reduction of water and energy use, reusing, and recycling of waste (Business Daily dated April 22, 2022). As a result, Absa Bank is exploring social bonds, sustainability bonds, green and blue bonds to cater for the demand for green financing hence green mortgaging. The bank recognizes that a lot of buildings exist and not constructed with the view of sustainability and its focus as a bank is to help clients make amendments in some of those areas.

Nigeria Mortgage Refinance Company (NMRC)

The company has been refinancing conventional mortgages since it commenced operations but stands ready to refinance mortgages created for off-takers of green buildings. NMRC has been calling on private developers to build more green residential houses since 2021. NMRC is a cheerleader and pioneer advocate of EDGE, a global green building certification system

Freddie Mac in USA GreenCHOICE Mortgages

Freddie Mac believes that reducing home utility costs places families in a better financial situation and helps preserve home affordability over time.

Through GreenCHOICE Mortgage® offering, Freddie Mac facilitates the financing of energy efficient home improvements and energy efficient homes, helping more families attain and maintain home affordability.

Fannie Mae in USA

Fannie Mae has a suite of Green Mortgage Loan products that benefit borrowers who invest in energy and water efficiencies, including preferential pricing and additional loan proceeds for energy and water efficiency retrofits.

Fannie Mae provided more than $70 billion in financing to support the multifamily market in 2019. As a key actor in the multifamily housing finance sector, the government-sponsored enterprise has long recognized that beyond the important social and environmental benefits, improving energy efficiency in affordable housing properties leads to lower credit risk, higher cash flows, and higher property values.

Fannie Mae's green financing programs seeks to

improve borrowers' financial stability by reducing utility consumption. Fannie Mae has eligibility requirements in place that limit the potential new risks associated with green financing. Green Rewards, for example, offers borrowers a lower interest rate than on a conventional loan and more loan proceeds by underwriting projected energy and water cost savings (75% of the owner and 25% of the tenant projected savings). The required energy and water audit report is 100% paid for by Fannie Mae.

Cagamas-Malaysia

National mortgage corporation Cagamas Bhd has entered into an agreement with the Asian Development Bank (ADB) towards expanding the green mortgage market to include B40, M40 and female-headed households. The company desires to ensure that affordable green housing is accessible to lower-income home buyers, whilst also reducing the overall environmental footprint left by the housing sector.

South Africa Home Loans

South Africa, Affordable Housing Development Finance at Nedbank Corporate and Investment Banking and the Green Fund concluded an agreement to jointly fund the development of about 400 affordable green housing units according to Hofinet.

The EDGE certification is awarded after a home uses 20% less energy, water and also reduces the carbon footprint of the house building materials by 20%.

In March 2020, Green Building Council South Africa members Balwin Properties and financial services provider ABSA jointly launched South Africa's first green home loan, the Absa Eco Home Loan. In 2019 Balwin registered 16 000 units located across seven of its built-to-sell developments for EDGE certification. The release of the Absa Eco Home Loan is an exciting first step towards increasing accessibility to green homes. Absa's Eco Home Loan enhances the benefits of EDGE certification by lowering the cost of finance for customers. EDGE registration Using the EDGE software provides environmentally conscious buyers and tenants with peace of mind that they are minimising their environmental footprint while saving on utility costs over the long term.

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