

## Kenya

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## Overview

Kenya is the largest economy in East Africa, and the second most populous country in the East African Community (EAC) – the region's economic bloc. The country is considered a potential investment destination regionally due to its strategic geographic location, the presence of vibrant capital markets, political stability and favourable investment policies, a well-established private sector, and government policies that have sought to improve infrastructure, regional connectivity, and enhance market access.<sup>1</sup>

As part of the country's social and economic growth strategy and to strengthen its position in the region, the Kenyan government has embarked on mega-infrastructure developments including the Standard Gauge Railway connecting the port of Mombasa to the Capital City, Nairobi, and connecting Nairobi to Naivasha and Uganda; the Lamu Port-South Sudan-Ethiopia-Transport (LAPPSET) Corridor programme; upgrading the port of Mombasa and the Nairobi Expressway.

Kenya's Affordable Housing Programme (AHP) was also launched as part of the Big-4 Agenda to resolve the affordable housing deficit. Under the programme, the government pledged to deliver 500 000 units by 2022 through partnering with the public and private sector.

Kenya completed the 2022 general elections through a generally peaceful process. The 2022 elections were also historic in the number of women elected. Although the presidential results were refuted by one of the main contenders and contested through petitions filed with the Supreme Court, the election results were upheld on 5 September 2022, and a smooth transition of power for elective seats has occurred.

All of this has supported economic growth. In 2021, the country's GDP was Ksh12.098 trillion (US\$102.65 billion) with the economy growing by 7.5%.<sup>2</sup> The year-on-year inflation rate, as measured by the Consumer Price Index, rose to 8.32% in July 2022 from 7.91% in June.<sup>3</sup> The effect was an increase in the cost of living and finance to households, and as a result, a notable share of the population was unable to access finance as their disposable income could not sustain the interest rates. Some of the key climate change risks are prolonged drought and flooding, unreliable rainfall due to seasonal variability which affects agricultural activity, or excessive rainfall which subsequently results in floods and landslides and resultant damage to physical property including dwelling units and infra-structure. Over 80% of the country's land is classified as arid and semi-arid.<sup>4</sup> Prolonged droughts affect not only agricultural production and result in further land degradation, but also the supply of building materials, thus increasing construction costs.

## Access to finance

The Monetary Policy Committee raised the Central Bank Rate from 7.5% to 8.25% in September 2022.<sup>5</sup> The commercial banks' lending rate was 12.27% in June 2022.<sup>6</sup> Kenya had 38 commercial banks as of December 2021, with 32 offering residential mortgages. Mortgage accounts stood at 26 783 with an average loan size of Ksh9.2 million (US\$78 058). The value of residential mortgage loans was Ksh245.1 billion (US\$2.08 billion) out of which 11.6%

## KEY FIGURES

Main urban centres	Nairobi, Mombasa
Exchange rate (1 July 2022): 1 USD = [a] 1 PPP\$ = (2021) [b]	117.86 Kenyan Shilling (KES) 43.80 Kenyan Shilling (KES)
Total population (2021) [b]   Urban population (2021) [b] Population growth rate (2021) [b]   Urbanisation rate (2021) [b] Percentage of urban population living in slums (2018) [d] Population living less than 5m above sea level (2010) [b] Most common fuels used by households   by B40 households (2020) [e] Percentage of female-headed households (2020) [e] Percent of population that have received at least 1 dose of COVID-19 vaccination as of 1 October [c] Unemployment rate (% of total labour force, national estimate) (2021) [b] Percentage of women participating in the labour market formally (2021) [b] Gini coefficient (2017) [b] HDI country ranking (2020) [d]   HDI country score (2021) [d]	54 985 702   15 667 076 2.30%   4.00% 46.5% 0.40% Wood   LPG/natural/bio gas 31.0% 25.03% 5.7% 71% 48.50 150   0.58
GDP per capita (Current US\$) (2021) [b] GDP (Current US\$) (2021) [b] GDP growth rate (2021) [b] Inflation rate (2021) [b] Lending interest rate (2020) [b] Proportion of adult population that borrowed formally (2021) [b]	US\$2 007 US\$110 347 million 7.52% 6.1% 12.1% 76%
Number of residential mortgages outstanding [f] Value of residential mortgages outstanding (USD) [f] Prevailing residential mortgage rate   Term [g] Maximum LTV on a residential mortgage [g] Ratio of mortgages to GDP Number of residential mortgage providers [f] Percentage of women who own a house alone and/or jointly (2014) [e] Number of microfinance loans outstanding [f] Value of microfinance loans (USD) [f] Number of microfinance providers [f]	26 723 US\$2 080 million 10 – 13%   10 years 90% 1.88% 32 42.3% 221 000 US\$340 million 14
Total number of residential properties with a title deed (2021) [h] Number of formal dwellings completed annually [i] Number of residential projects certified by EDGE [j] Price of the cheapest, newly built house by a formal developer or contractor in an urban area in local currency units [k] Size of cheapest, newly built house by a formal developer or contractor in an urban area [k] Typical monthly rental for the cheapest, newly built house (2021) [i] Cost of standard 50kg bag of cement in local currency units [m] Type of deeds registry: digital, scanned or paper (2020) [n] World Bank Ease of Doing Business index rank (2020) [n] Time to register property (days)   Cost to register property (2020) [n] World Bank DBI Quality of Land Administration index score (0-30) (2020) [n]	4 060 000 50 000 17 1 500 000 KES 30m <sup>2</sup> 8 500 KES 700 KES (US\$5.94) Computer - Fully digital 50 44 days   5.9% 15.0

NB: Figures are for 2022 unless stated otherwise.

Member organisations of the African Union for Housing Finance (AUHF):

FSD Kenya	Habitat for Humanity International
Kenya Mortgage Refinance Company	Reits Association of Kenya (RAK)
Shelter Afrique	Stephen Wanjala
International Finance Corporation (IFC)	

[a] Xe.com	[h] National Land Commission
[b] World Bank World Development Indicators	[i] Habitat for Humanity
[c] Johns Hopkins University Coronavirus Resource Center	[j] Edgebuildings.com
[d] United Nations Human Settlements Programme (UN-HABITAT)	[k] Borna Yangu
[e] Demographic and Health Surveys, USAID	[l] Tsavo Real Estate Kenya
[f] Central Bank of Kenya	[m] Binico Enterprise
[g] KCB Bank Kenya Limited	[n] World Bank Ease of Doing Business Indicators

were non-performing loans. In 2021, the average mortgage rate was 11.3%, the average loan maturity was 12 years, and the Loan to Value (LTV) ratio was below 90%. Customer deposits are the main sources of funding for banks at Ksh4 451.7 billion (US\$37.77 billion) as of December 2021.<sup>7</sup> Kenya's National Treasury also offers risk-free government securities through treasury bills and bonds.

Access to formal finance in Kenya continues to increase. Access to formal finance in 2021 was 83.7%, compared to 82.9% in 2019. This is primarily driven by the use of technology, and increased regulation and safety in the financial sector.<sup>8</sup> However, opportunity exists for greater financial inclusion, as 11.6% of Kenya's adult population is completely excluded from accessing financial services. There are three licensed Credit Reference Bureaus in the country.<sup>9</sup>



The Kenya Mortgage Refinance Company (KMRC) was established in August 2018 as an initiative of the National Treasury and the World Bank. KMRC began operations in September 2020, with a mandate to provide liquidity financing to Primary Mortgage Lenders (PMLs) who would then lend to borrowers at below-market interest rates, and with longer repayment periods. KMRC's main source of funding is the World Bank and Africa Finance Development Bank through the National Treasury, and issuance of bonds. Under current refinancing terms, member PMLs are offered funds at a 5% interest rate and a repayment period of up to 20 years.<sup>10</sup> By the end of 2021, the KMRC had disbursed approximately Ksh1.3 billion (US\$11.029 million) to seven institutions, and an additional Ksh2.57 billion (US\$21.805 million) by May 2022. Disbursement of a further Ksh5.2 billion (US\$44.119 million) is planned.<sup>11</sup>

The increase of mobile lending has created vibrant loan facilities for individuals with unstable incomes. These loans offer low interest rates and flexible repayment plans, enabling individuals to access emergency finance. Examples of reliable mobile loans are TALA<sup>12</sup> and KCB MPesa loans.<sup>13</sup>

There are 14 licensed deposit-taking microfinance banks (MFBs) with a total loan size of Ksh40.115 million (US\$340 358). The largest MFB is Faulu MFB with a market share of 39.5% in 2021.<sup>14</sup> The Kenya Women Finance Trust (KWFT) developed the Nyumba smart loan in 2013, a micro-loan product that enables members to access funds to construct, renovate or complete a house using quality locally available materials. The minimum loan size is Ksh100 000 (US\$848), and borrowers are offered a maximum repayment period of 24 months, at an annual interest rate of 24%. The bank also offers lenient application requirements for borrowers, including a six months' bank statement, and a quotation of the works to be undertaken.

Savings and Credit Co-operative Societies (SACCOs) play a vital role in Kenya's finance and housing finance sector. SACCOs bridge the gap in the housing finance market, with most of them providing unsecured, medium-term loans to their members. Members can use their savings or shares to access loan collateral. Cooperatives also pool funds for land purchase and construction finance. In Kenya's long-term economic strategy, Vision 2030, the government anticipated that cooperatives would provide 25% of the housing stock in urban areas. In 2021, the largest share of total credit advanced by SACCOs was credit to the land and housing sector, at 26.98% of total credit.<sup>15</sup>

Despite these advances, gender disparity in access to finance persists. Approximately 75% of women aged 15 years and above have an account at a financial institution or a mobile money provider, compared to 83% of men.<sup>16</sup> There has however been a reduction in the gender disparities in access to finance, from 8.5% in 2016 to 4.2% in 2021,<sup>17</sup> driven by technology, which has helped to narrow the rural-urban gap over the years. Although limited, some financial institutions have developed targeted products for women in formal and informal business. These financial products offer benefits such as access to unsecured loans and increased loan limits, recognising the fact that the rates of repayment are higher among female borrowers compared to men.<sup>18</sup> Construction finance is also available for property developers, with some lenders allowing for conversion to mortgages after construction is completed.

### Affordability

Many households live below the national poverty line, which is Ksh3 252 (US\$27.59) per month in rural areas, and Ksh5 995 (US\$50.86) per month in urban areas.<sup>19</sup> According to the Kenya Institute of Public Policy Research and Analysis (KIPPRA), the national poverty rate in 2020 was 41.9%.<sup>20</sup> These high rates of poverty in both urban and rural areas indicate a continued need for government support to enable poor households to access housing. Unemployment is estimated at 5.7% of the total labour force of 24.97 million, comprising 49.2% women and 50.8% men as of 2021. Approximately 83.3% of the total employed population<sup>21</sup> work in the informal sector, with an average wage of Ksh14 000 per month (US\$119).<sup>22</sup> Nationally, 61.3% of the population own their main dwelling unit while 38.7% rent.<sup>23</sup> However in urban areas, rental rates are higher. In Nairobi, 90.6% of the population live in rented units and 9.3% in owned units, partly because of the unaffordability of homeownership, and partly because urban dwellers prefer to rent a house in the city and own a home in the rural areas.

The Affordable Housing Program represents an effort by the Kenyan government to attend to gaps in the affordable and low income housing supply market. Affordable housing units available to the public through this programme range

from Ksh1 million (US\$8 484) to Ksh5.6 million (US\$47 513). Target beneficiaries for the programme are low income residents with a monthly income of Ksh23 670 (US\$201) and below.<sup>24</sup>

In Nairobi, one-bedroom apartments were priced between Ksh1 million (US\$8 484) and Ksh1.5 million (US\$12 727). One-bedroom apartments in Ngara/Pangani area rent at Ksh25 000 (US\$212) monthly, exclusive of service charges.<sup>25</sup> Continued urban growth has led to an increase in the cost of land in Nairobi and peripheral areas, crippling affordable housing production. Land prices in Nairobi's satellite towns range between Ksh9.8 million (US\$83 149) per acre in Kiserian, to Ksh27.1 million (US\$229 931) per acre in Ngong'.<sup>26</sup>

To support development and uptake of affordable housing, the Kenyan government has offered various subsidies, such as exemption from the payment of stamp duty for first-time homeowners under affordable housing, affordable housing relief at 15% of employee's contribution, and developers' exemption from VAT on import and local purchase of goods for the construction of affordable houses. Though intended to bridge the demand and supply of low-cost housing, subsidy incentives to developers have not yet been realised, and accessibility continues to be a challenge.

### Housing supply

In 2019 Kenya's total population was 47 564 million, of which 31% were in urban areas.<sup>27</sup> Although most of the country's population still resides in rural areas, Kenya's trend towards urbanisation is projected to continue, with 50% of the country's population expected to live in urban areas by 2050. Housing demand is estimated at 250 000 houses annually. With a supply of only 50 000 new houses annually, there is an 80% annual housing deficit.<sup>28</sup>

The government's AHP has fallen short of its target of delivering 500 000 units, with less than 10% of intended units being delivered by 2022.<sup>29</sup> The AHP units are constructed using modern materials i.e., stone, sand, cement, and steel for reinforcement and consist of formal apartments in gated communities. The National Treasury allocated Ksh27.7 billion (US\$235 million) to affordable housing programmes for FY2022/2023.

Overall, housing supply in Kenya is still dominated by small- and large-scale private market providers, or individual owner-builders. The main challenges facing affordable housing production have always been the high costs of development-class land and construction. Incentives offered by the government through the AHP included free land to developers, tax rebates and subsidies on infrastructure costs. In the last five years, however, these benefits have not been accessed by developers, hampering the delivery of affordable housing.<sup>30</sup> This notwithstanding, the new government has expressed an intention to deliver 250 000 affordable units annually.<sup>31</sup>

In Kenya's capital, the County Government offered its old estates to private developers for renewal and upgrading, and to boost the supply of affordable housing units in the county. In the pilot programmes, developers constructed 3 164 affordable units at the Ngara-Park Road and Pangani affordable housing projects.<sup>32</sup> The units supplied through these formal housing programmes are similar to those supplied by the market in urban areas, though the prices are still unaffordable for most of the urban population. Approximately 89% of contractors use locally available construction materials whilst 8% use mostly imported materials, and 3% rely on both locally available and imported materials.<sup>33</sup> A common trend among developers across urban and rural areas is the incremental construction of housing, first by building a temporary structure with a useful economic life of approximately 10 years, before constructing with permanent materials. Developers and landowners in urban areas undertake this mode of temporary construction for short-term income and speculation while holding the land for future permanent development.

As the lead body for regulating Kenya's construction sector, the National Construction Authority (NCA) accredits, registers and regulates contractors' professional undertakings. Construction-related approvals are also regulated by agencies such as the National Environment Management Authority (NEMA), relevant county governments and utilities companies. The process of acquiring construction and occupation permits from the respective agencies is tedious and takes approximately 159 days and costs 2.8% of the property value.<sup>34</sup> This has been attributed to corruption and bureaucracies within the agencies.

## KENYA – Considering housing affordability from a household perspective

For low income households seeking access to affordable housing, affordability is dependent on a number of factors, including income, competing expenses, transport costs (which are likely linked to housing location), and the cost of finance. Data specific to individual countries and housing developments is often not available, thus requiring evidence-based assumptions to generate estimates of affordability.

In order to get a better grasp on the affordability of home ownership in various countries, we considered two simplified scenarios – law enforcement officer and teacher. These entry-level occupations were chosen because they are fundamental to the economy and society, comprise a large portion of the formal workforce in most African countries, and are fairly secure while having relatively low skills entry points.

The two occupations are also inclusive of both genders, since in many countries, teachers are female while law enforcement officers are male.

<p>If you are a <b>law enforcement officer</b> living in a major urban area</p> 	<p>If you are a <b>teacher</b> living in a major urban area</p> 	<p><b>Cautionary notes</b></p> <p>It must be emphasized that these are hypothetical scenarios – not calculations based on comprehensive research of income levels in each country.</p>
<p>who earns <b>Ksh31 000</b> per month</p> 	<p>who earns <b>Ksh20 000</b> per month</p> 	
<p>you could afford to purchase a <b>Ksh734 969</b> house with a mortgage.</p> 	<p>you could afford to purchase a <b>Ksh474 174</b> house with a mortgage.</p> 	<p>We have based our calculations on some generic assumptions applicable to all countries, including 30% of household income spent on housing. We are also assuming a household is eligible for a formal mortgage, and that such financing is available – which may not be true for substantial segments of the country's population. Alternative forms of finance, including non-mortgage finance, and once-off income sources (e.g. pension payouts or inheritances) are not taken into account.</p>
<p><b>Mortgage assumptions – Kenya</b></p> <ul style="list-style-type: none"> <li>– 11.5% interest rate</li> <li>– 10% deposit</li> </ul> <p style="text-align: right;">– 10 year loan tenor</p>		

### Property markets

Kenya has a robust property market sector, comprising rental and home-ownership markets. The private sector plays a key role in the generation and management of rental stock, as well as through the construction and sale of housing.

Kenya's government marked a key milestone in the transition towards a digitised land registry with the launch of the *ArdhiSasa* National Land Information Management system in 2021.<sup>35</sup> The digitisation of the other registries in the country is ongoing at various stages.<sup>36</sup> The digitised system is expected to speed up land transaction and registration processes. According to the World Bank's Doing Business indicators for Kenya, a land transaction process comprised 10 procedures and took approximately 43.5 days, costing 5.9% of the property value.<sup>37</sup> In 2021, the total number of land transactions in Nairobi was 39 627 compared to 32 276 in 2020.<sup>38</sup>

According to recent communication from Ministry of Lands, the number of titled properties is approximately 12 million. Within urban areas, the property market is predominantly a rental market, which may be due to the increasing costs of residential property prices in recent years. The latest report from Hass Consult indicates a 3.3% increase in all property sale prices and 1.1% increase in rental prices for the second quarter of 2022 compared to the previous quarter.<sup>39</sup> Land prices in Nairobi increased by 0.17% and those in Nairobi satellite towns increased significantly by 4.05% in second quarter of 2022 compared to the first quarter.<sup>40</sup>

Real estate activities contributed approximately 8.9% to the total GDP in 2021 with 4 100 people employed in this sector as of 2021.<sup>41</sup> Formal estate agents are governed by the Estate Agents Act, which regulates their mandate and conduct.<sup>42</sup> However informal estate agents also work in local neighbourhoods and operate on online platforms. Although informal agents have vast knowledge of the residential market and market operations, they have no academic background in real estate and are not regulated by formal agencies. Informal estate agents have been involved in the illegal business of swindling citizens during property transactions.

Although the law provides equal property rights to both parties in a marriage and upon dissolution of the marriage, the practice of property ownership in Kenya is still skewed towards men, with less than 10% of the registered title deeds being held by women. The number of women-headed households in rural areas is 36%, and 28.7% in urban areas.<sup>43</sup>

### Policy and legislation

A number of bills relating to housing, housing finance and construction professions in Kenya were introduced between 2021 and 2022. In the land sector, the Land Control Bill 2022 seeks to tackle key issues such as dispositions of land in areas outside cities and urban areas, and in areas designated for agricultural use under the Physical and Land Use Planning Act.<sup>44</sup>

The National Land Commission (Amendment) Bill seeks to amend the role and mandate of Kenya's National Land Commission and assign the commission powers to continue reviewing all grants and dispositions of public land.<sup>45</sup> At present, the National Land Commission has no legal mandate to undertake these functions as the time afforded to it to do so has lapsed, yet many claims remain unresolved.

The Landlord and Tenant Bill (2021) was introduced in 2021, remains in draft form and has not yet been promulgated by Parliament.<sup>46</sup> The Bill seeks to promote stability in the rental market sector, consolidating the laws governing the relationship between landlords and tenants, and repealing existing laws, which include the Distress for Rent Act (DRA), the Rent Restriction Act (RRA) and the Landlord and Tenant (Shops, Hotels and Catering Establishments) Act.

Amendments were also made to the Sectional Properties Act 1987, through the Sectional Properties Act, No. 21 of 2020,<sup>47</sup> which has been seen as simplifying the process of registering sectional properties.<sup>48</sup> On housing finance, the Finance Act (2022) amended the Income Tax Act, raising the Capital Gains Tax from 5% to 15%. This will lead to lower yields for investors from the sale of property, possibly triggering a reduction in property transactions.

Kenya's Constitution protects the rights of all citizens to own property, irrespective of gender. Property and land rights for married women were enhanced by the Matrimonial Property Act, 2013 which recognises spouses as equal property owners and protects women's rights to land ownership during marriage, divorce, and separation. The Act also regulates eviction from the matrimonial home.<sup>49</sup> The Law of Succession Act in Kenya allows for inheritance of property by the spouse, and male and female children of the deceased. However, for a widow, this only applies until she remarries. Despite the legislative framework, cultural barriers still hamper women's ownership of land.

The Climate Change Act was passed into law in 2016, to coordinate the government's green building agenda with climate change mitigation and adaptation. Kenya's vision for green development is also outlined in the country's Green Economy Strategy and Implementation Plan 2016-2030 (GESIP), and the National Climate Change Action Plan, which charts Kenya's transformation pathway to a green economy.<sup>50</sup> The agency tasked with coordinating the country's green building agenda is the Kenya Building Research Centre (KBRC).

### Opportunities

Over the last five years, the government's Affordable Housing Programme has established mechanisms to expand housing supply and finance, and, through continued implementation and improvement, could unlock housing delivery systems and expand investment opportunities. However, one of the main unresolved challenges in the housing sector is tenure security.

Notable key trends to watch in the residential housing sector include the increase in studio and student housing within urban areas, as well as tenant-purchase schemes where a tenant pays rent over a period and eventually takes full ownership of the unit.

Furthermore, many opportunities for investment in sustainable housing and construction exist, including investment in setting up recycling centres to recycle waste materials for use in construction of low-cost housing.

Technology could be used in developing an incremental housing fund for low income households. Additional technological advancements that could help reduce project costs include 3D printing and modular housing construction, where factory-built parts of a house are transported to the site.<sup>51</sup>

### Availability of data on housing finance

The Kenya National Bureau of Statistics (KNBS) is the primary state agency tasked with collecting, analysing, and publishing the country's statistical data, including housing conditions and household expenditure. The Central Bank of Kenya collects information on lending, mortgage statistics, and lending performance indicators reported by financial institutions. Data from the KNBS and the CBK is available online and in digital format through the organisations' websites.

The Kenyan government has been making active efforts to make public sector data available through online portals such as the Kenya Open Data Portal, or through individual department websites. Additional information from the financial sector can also be accessed through reports by the Kenya Bankers Association (KBA). Considerable data gaps still exist within the housing finance sector, largely because institutions do not want to share information, or because digital and disaggregated information is not easily available to the public. On climate change, the Kenya Climate Innovation Centre provides data for understanding climate issues in the country and their impact on affordable housing.

### Websites

- Central Bank of Kenya [www.centralbank.go.ke](http://www.centralbank.go.ke)
- FSD Kenya [www.fsdkenya.org/](http://www.fsdkenya.org/)
- Jenga Green Library [www.jengagreenlibrary.com/directory/](http://www.jengagreenlibrary.com/directory/)
- Kenya National Bureau of Statistics [www.knbs.or.ke/](http://www.knbs.or.ke/)
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- Ministry of Transport, Infrastructure, Housing and Urban Development. [www.housingandurban.go.ke/](http://www.housingandurban.go.ke/)
- Reits Association of Kenya (RAK) [www.rak.co.ke](http://www.rak.co.ke)

- Shelter Afrique [www.shelterafrique.org](http://www.shelterafrique.org)
- Habitat for Humanity International [www.habitat.org](http://www.habitat.org)
- Kenya Mortgage Refinance Company [www.kmrc.co.ke](http://www.kmrc.co.ke)
- FSD Kenya [www.fsdkenya.org](http://www.fsdkenya.org)

### Green applications for affordable housing

The Kenya Green Building Society, a non-profit, membership-based society registered with the World Green Building Council, is responsible for green building practices in Kenya. The Kenya Building Research Centre also champions and coordinates the government's green building agenda in relation to climate change mitigation and adaptation. The Centre developed The Green Mark Standard, which is a tool for rating and certification of green buildings. The Architectural Association of Kenya (AAK) has also launched a Green Building certification tool, the Safari Green Building Index 2021, which assesses construction projects to establish their environmental performance.

Currently no banks offer green mortgages in Kenya, however investors within the finance space are beginning to capitalise on this emerging sector. Kenya Climate Ventures provides equity, convertible debt, and debt in early and growth-stage businesses that offer climate-smart solutions. There are also market-driven innovations and developments in Kenya's green building and construction sector. As an example, Green Pavers is a firm that develops affordable housing materials from recycled plastic, which helps keep costs in check for providing low-cost housing. Kenya's energy sector has adopted innovative green technologies. Hydropower energy was the main source of electricity production as of January 2022. There has also been growth in off-grid lighting and energy solutions, for instance through the Lighting Africa Program. An estimated 10 million people rely on quality-verified off-grid solar products for lighting. Finally, opportunities remain for the development of green technologies and solutions to meet household needs, especially water and sanitation services.

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