



AAK | PROMOTING EXCELLENCE
IN THE BUILT ENVIRONMENT

THE STATUS OF THE BUILT ENVIRONMENT REPORT

JANUARY – DECEMBER 2022





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Table of contents

2022

1. Introduction	4
2. Land and Property Market	6
3. Infrastructure	8
4. Collapse of Buildings In Kenya	15
5. Is Your Home Healthy?	17
6. Green Buildings and the Climate Agenda	22
7. The Effect of the Russia-Ukraine War on the Built Industry	25
8. Price Increase of Construction Materials	26
9. AAK Salary Survey 2022	28
10. Technology and the Built Environment	30
11. Development Control in Kenya	32
12. A Look at The Jubilee Administration: The Big Four Agenda	40
13. Kenyans Must be at The Center of Their Own Development: The Kenya We Want	42

Introduction



6.8%

Headline | Subline here

Kenya's economy recorded a better performance in the first quarter of 2022

2.7%

Headline | Subline here

Kenya's economy expansion in the first quarter of 2021.

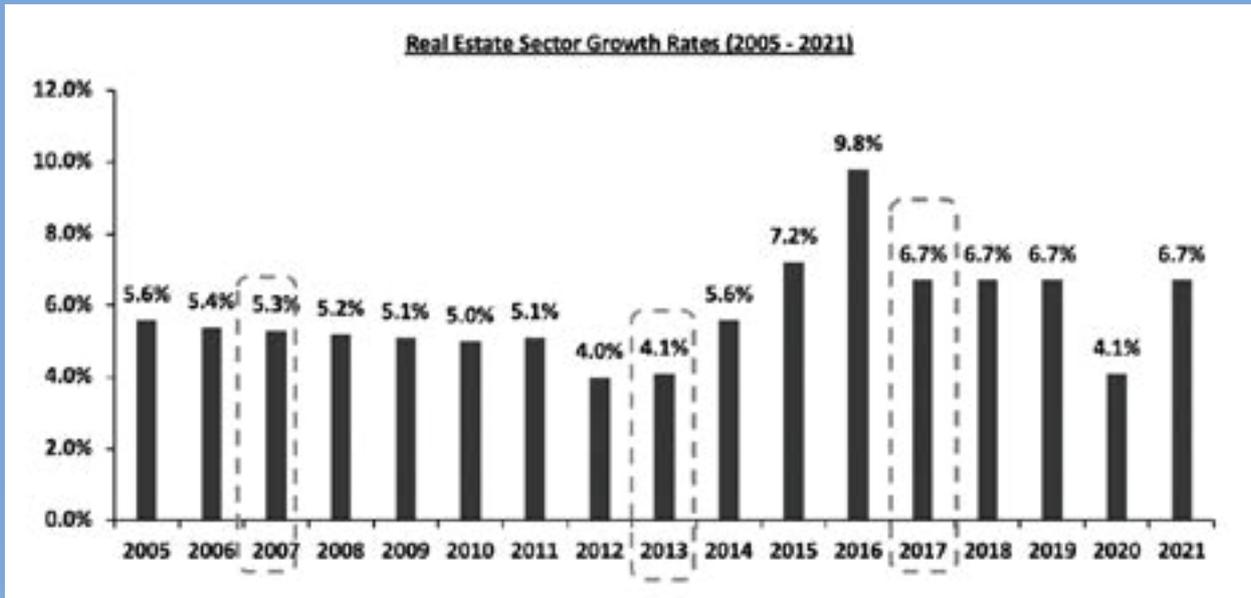
In the first quarter of the year, the economy showed improvement as the world learned to navigate the COVID-19 pandemic and adapt to the New Normal. The Kenya National Bureau of Statistics (KNBS) reported that Kenya's economy recorded a better performance in the first quarter of 2022, compared to the corresponding quarter of 2021 at a 6.8 % expansion compared to 2.7 % in the first quarter of 2021. This was largely attributed to the lifting of restrictions and measures instituted during the COVID-19 pandemic.

However, this global recovery that was seen in the first few months of 2022 lost momentum due to the ongoing Russia-Ukraine war. The Kenya Economic Update Report June 2022 by the World Bank warned that Kenya faced a potentially large economic shock from the war in Russia and Ukraine. The sector should brace itself for price hikes, shocks, and commodity shortages. Russia and Ukraine are the largest exporters of gas and oil among others. Due to increased prices in oil, the impact will be felt across other sectors. This led to limited rise in the import bill, increased cost of production and transportation impacting utilities, manufacturing and service sectors.

This downward trend was further exacerbated by the August 08, 2022 Kenya general elections. Kenya has had a total of 10 elections since its independence with several of them marred with violence. The political uncertainty during the electioneering period greatly affects investor behavior with many investors and key business people practicing the wait and see approach. This leads to delayed spending as key decisions are postponed and the period becomes inactive and with subdued growth.

These combined factors adversely affected the construction sector in 2022 resulting in the gradual decline in the sector performance throughout the year. The Kenya National Bureau of Statistics Q3 Gross Domestic Product (GDP) report shows the sector was at 6.4% in Q1, 5.8% in Q2 and 4.3% in Q3. The same is seen in cement consumption and import of construction material. The same trend was also seen in the real estate sector with Q1 at 6.1%, Q2 at 5.5% and Q3 at 5.1%.

Despite this, the year also saw the launch of major infrastructure projects such as the Nairobi Expressway, the Makupa Bridge and the Nairobi Eastern Bypass; and award winning technology and applications that are useful in the sector such as the Nyumba Mkononi App, the Jenga Green Library and the Safari Green Building Index.



Source: Kenya National Bureau of Statistics



THE CONSTRUCTION SECTOR IN 2022

6.4%

IN QUARTER 1

5.8%

IN QUARTER 2

4.3%

IN QUARTER 3

2 Land and Property Market

The Kenyan real estate industry recorded a bounce back after two years of a sharp drop during the COVID-19 pandemic. During this period, most people reserved their savings to support their livelihoods rather than investing in sectors such as real estate. The loss and reduction of income streams and reduced lending by banks and other financial institutions due to the economic uncertainty also translated to decreased investments in land and property. The pandemic was also an eye-opener, making people appreciate the need for spacious rooms, clean air, and sufficient parking, leading to improved quality of spaces in property development.

According to the Land and House Price Report by Hass Consult, land and property prices registered an overall increase during the first quarter of 2022. Specifically, land prices in Nairobi increased by 0.11%, while those in satellite towns posted a 2.17% increase. Similarly, there was an annual 6.8% rise in property sales from March 2022. The findings resonated with

those of the Kenya National Bureau of Statistics (KNBS) which recorded a 6.4% growth in the construction industry in the same period.

During the second quarter of 2022, property prices continued to increase, recording a 3.3% increase, and posting strong market growth. This was attributed to the rising cost of building materials, and developers factoring in the inflation rate and losses from the weakening Kenyan shilling. In the period, the total property returns were up to 16.26% per annum, placing property at the peak of investment returns. Land prices for all satellite towns in Nairobi posted an all-time high asking price. The highest recorded was Tigoni which recorded a 6.5% increase, where the average price was KES 27,700,000 per acre.

In the third quarter of 2022, property prices recorded a 0.8% price growth, which was a relatively slow growth rate attributed to the stagnated apartment sales market. The growth was mostly driven by the

0.11%

Land and House Price Report by Hass Consult

Land prices in Nairobi increased, while those in satellite towns posted a 2.17% increase.

detached housing segment which recorded a 1.5% increase, where detached units in Juja and Loresho increased by 5.1% and 3.6% respectively. The tough economic environment was also reflected in rents which slightly dropped by 0.2%, where the highest rent increases were in Ruiru at 6.4%. In terms of land, prices in Nairobi's 18 suburbs remained stable with a 0.8% drop during the third quarter. Syokimau was the best performing, recording a 6.89% increase while Juja recorded an all-new high of KES 18.8 million an acre. Similarly, KNBS records that the construction sector was relatively slower in the third quarter, recording a 4.3% growth compared to a 6.7% growth in Q3 of 2021. This could be attributed to the Elections.

Comparatively, the HassConsult Land and House Price Report highlighted that the last quarter

of 2022 recorded a 2.2% drop in property sales, leading to an average annual price growth of just 4.8%. This was mostly attributed to the rise in the cost of living in the year 2022 and global inflation. Land in most of Nairobi suburbs remains static recording a 0.19% increase during the quarter. The slow growth was majorly a spillover of the low activity recorded in Q3.

In general, the economy's recovery has significantly contributed to the rise in the price of land and houses while also reviving the rental market. Additionally, infrastructural developments across various parts of the country have also been a significant factor in property prices. Looking forward, the Landlord and Tenant Bill will also significantly influence the direction of rent once it is passed into law.

3.3%

During the second quarter of 2022, property prices continued to increase, posting strong market growth.



Source: Land and House Price Report by Hass Consult

3

Infrastructure

3.1. The Nairobi Expressway

H.E. the former president Uhuru Kenyatta launched the Nairobi Expressway on the 31st of July 2022 after a public trial period from May 2022. In an effort to ease traffic and decongest Nairobi city, the 87.9 billion road starts from Mlolongo to Westlands and has 11 toll stations and 27 toll plazas. Motorists have to pay a minimum of KES 120 to use the road, using either of the three payment options- cash payment, Electronic Toll Collection (ETC) for non-stop cashless access, and Manual Toll Collection (MTC) card for tap-and-go card-based cashless access. With barely three months of use, the road-users have

experienced various challenges using the expressway. For instance, the cash and MTC exit tolls experience continued congestion as motorists have to queue for long periods. These queues often overflow onto the non-stop ETC lanes, creating a snarl-up toward the exits. The Museum Hill exit has suffered the most on this and may require a redesign to address the challenge.

Within the same month of its opening, the government announced the plan to redesign the road to allow motorists from Westlands to exit at Nyayo House while those from the Airport to land at Haile Selassie Avenue or Green Park bus terminus. With an expectation of the



Source: The Star Newspaper

process taking three to six months, the proposal instigated mixed reactions, the main areas of contention being the concerns of congestion around the proposed areas and the cost implications of the redesign.

A number of accidents and incidents have occurred on the thoroughfare since its opening. This led to the government suspending the use of the road by commercial passenger vehicles to investigate and develop proper safety interventions for all road users. Thus far, the government added bumps and rumble strips at the exit points to control the speed as vehicles approach.

AAK has been at the forefront in advocating for ways to improve the expressway. Through the Landscape Architect's Chapter, the association wrote to the Kenya National Highways Authority (KeNHA) about the current and projected environmental impacts of the Nairobi Expressway. The main recommendations focused on improving the area under the expressway, the inclusion of other landscape elements such as art, the use of simpler installation methods as opposed to the vertical gardens, the use of shade-tolerant plants below the expressway, use of a more sustainable watering method and stormwater management to reduce soil erosion.

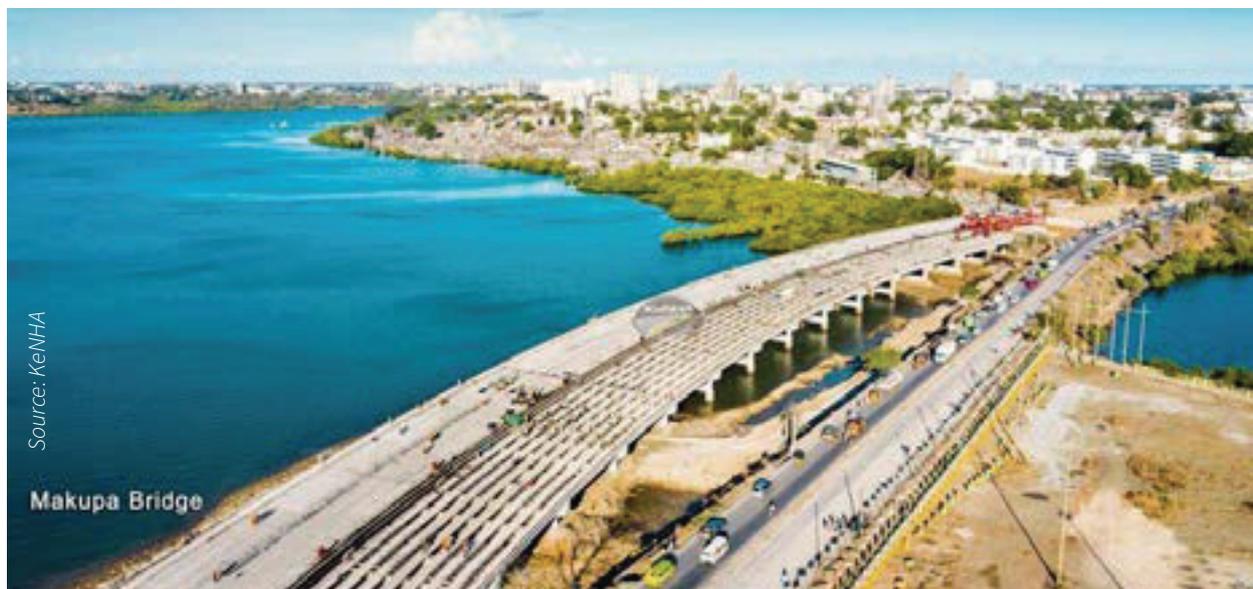
The government also planned to improve Mombasa Road, Uhuru Highway, and Waiyaki Way during restoration from damage caused by the implementation of the ExpressWay. Enhancements such as the BRT, cycling paths, and pedestrian pathways while expanding various sections have been proposed. Road users of the damaged road

have been experiencing poor drainage and the lack of street lighting, cycling paths, pedestrian walkways, and crossings causing accidents and unnecessary snarl-ups hence the need for improvement works. On 7th February, KeNHA announced that the rehabilitation works will begin in April as the government is finalizing the contracts before the works begin. The rehabilitation works will include fixing the drainage system, erecting a bus rapid transport system and fixing pedestrian walkways. The much-delayed rehabilitation is very critical in improving efficiency along the road, especially for road users who cannot afford to pay for the expressway.

3.2. Makupa Bridge

The government commissioned the construction of the Makupa Bridge and demolishing of the existing Makupa Causeway. Built in 1929 by the British colonial government, Makupa Causeway links Mombasa Island to the Kenyan mainland. The bridge had reportedly been interfering with the marine ecosystem beneath due to the water flow restriction resulting in impediment of the natural oceanic waves and the free flow of aqueous oxygen and contributing to the damage of fish breeding grounds. Completion of the new bridge will pave the way for the single-lane causeway's demolition.

On August 4th, 2022, H.E. the former president Uhuru Kenyatta launched the historic bridge which returns Mombasa to its initial island status. The Makupa Bridge design comprises two four-lane parallel bridges with a width of 20 meters each, an extra two-meter rail for non-motorized traffic, and a pedestrian footpath and will give the road



Source: KeNHA

Makupa Bridge



users a good view of the ocean. The design meets the requirements of the UNESCO standards on the preservation of marine life, which nearly delisted Mombasa from the list of island cities of the world.

While the bridge now allows seawater to flow freely connecting Tudor and Port Reitz creeks, it also provides a long-term solution to the traffic congestion that was being experienced on this main transport artery to the Moi International Airport and the Standard Gauge Railway Mombasa Terminus at Miritini.

3.3. The Nairobi Eastern Bypass

The dualling of the Nairobi Eastern Bypass began in November 2020 after years of traffic congestion. The 27.8 Km road serves busy urban centers such as Pipeline, Utawala and Ruiru and was upgraded from a 2-lane single carriageway to a 4-lane dual carriageway at a cost of KES 12.5 billion.

The Bypass is a key transport artery that links Mombasa Road to the Thika Superhighway and had been experiencing traffic gridlock over the years, with motorists complaining about how driving along the road was a daunting task.

3.4. Mombasa Gate Bridge (Likoni Bridge) Construction Project

The Government of the Republic of Kenya (GoK), through the Kenya National Highway Authority (KeNHA) and the support of the Government of Japan through JICA, is developing the Mombasa Gate Bridge (MGB) Construction Project. This will be a 13.2km development inclusive of approach roads with a channel crossing bridge with a 500-600 m² width channel with busy vessel navigation, estimated to cost USD 700 – 900 million. It will require the erection of a cable-stayed bridge that will support four traffic lanes, with a height of 69 metres at the mid-point for ships to pass underneath on their way into and out of the Kilindini harbour.

The project will contribute to the achievement of SDG 9 (Build Resilient Infrastructure, Promote Inclusive and Sustainable Industrialization and Foster) Innovation. It aims to mitigate traffic congestion and facilitate efficient transportation and logistics around the Mombasa area, which is the gateway of East Africa, through the construction of a large-scale cable-stayed bridge linking Mombasa Island and the South Mainland of Likoni. This will

¹ https://openjicareport.jica.go.jp/pdf/12306270_02.pdf



and commercial areas as well as MICE (meetings, incentives, conferences and exhibitions).

The government is rolling out the key initiatives and supporting infrastructure at the 3,000-acre flagship project to ready it for investors by the end of 2024. The activities include the implementation of a resettlement action plan, the completion of the Dongo Kundu bypass, the demarcation and titling of land, and construction of berths along the SEZ and the area under the Kenya Ports Authority (KPA).

3.6. Lamu Port and LAPSSSET progress status

improve local development and is expected to contribute to regional economic activities and the development of Kenya and the surrounding regions.

The temporary floating bridge that was opened in December 2020 at Likoni to ease traffic will be dismantled once the bridge is complete. The construction of the bridge is estimated to begin in June 2023 and last three to four years.

This was one of the flagship projects of Kenya Vision 2030. The mega project comprises seven key infrastructure projects starting with a new 32 Berth port at Lamu (Kenya); Interregional Highways from Lamu to Isiolo, Isiolo to Juba (South Sudan), Isiolo to Addis Ababa (Ethiopia), and Lamu to Garsen (Kenya), Crude Oil Pipeline from Lamu to Isiolo, Isiolo to Juba; Product Oil Pipeline from Lamu to Isiolo, Isiolo to Addis Ababa; Interregional Standard Gauge Railway lines from Lamu to Isiolo, Isiolo to Juba, Isiolo to Addis Ababa, and Nairobi to Isiolo; 3 International Airports: one each at Lamu, Isiolo, and Lake Turkana; 3 Resort Cities: one each at Lamu, Isiolo, and Lake Turkana; and The multipurpose High Grand Falls Dam along the Tana River.

3.5. S.E.Z at Dongo Kundu progress status

The Dongo Kundu Special Economic Zone is located in Mombasa, along the East African coastline, occupying approx. 1,200 hectares (3,000 acres). Special Economic Zones (SEZs) are part of the flagship projects under the Economic Pillar of the Kenya Vision 2030. The SEZs are geared towards improving Kenya’s competitiveness as an investment destination by having an industrial park, port, free port/free trade zone, residential

As the anchor facility of the LAPSSSET project and the second commercial port in Lamu, the Lamu Port was commissioned in July 2021. Phase one of the port comprises 17 berths, 3 of which were completed as at December 2022. Upon completion, the port is set to have 32 berths making it the largest deep-water port in Sub-Saharan Africa.





Source: <https://www.dredgingtoday.com/2021/06/28/new-lamu-port-officially-commissioned/>



Source: <https://www.malindikenya.net/en/articles/news/last-news/coastal-highway--ruto-inaugurates-works.html>

However, the LAPSET project has been adversely affected by terror attacks in the North Eastern region of Kenya. The works are currently suspended for a period of six weeks from the last incident that took place on January 17 2023. There have been seven attacks targeting construction workers since December 8 2022, delaying the construction of the 257 km Lamu-Ijara-Garissa section, which is 60% complete. Other affected projects include the 113-kilometer Hindi-Bodhei-Basuba-Kiunga section and the 83-Km Ijara-Sangailu-Hulugho section.

3.7. Dualling of the Mombasa to Malindi Road

The dualling process is planned in phases due to the length of the road (454 Km). Phase I comprises 120.8km Mkange – Tungumaa – Pangani road section in Tanzania and 54 km Mombasa – Mtwapa – Kilifi road section in Kenya. Construction works are underway as the government intends to extend the highway to the Tanzanian border to foster regional integration and facilitate trade and movement as part of the East African Community (EAC) economic region.

The dualling of the 40.4-Km Mtwapa - Kwa Kadzengo – Kilifi Road, whose construction was launched by H.E. President William Ruto on November 19, 2022, is taking shape. On 31st January 2023, Kenya National Highways Authority (KeNHA) reported that the contractor has so far constructed about 7 km of the road around Vipingo area, and the works are now at 10%.

KeNHA has also partnered with various stakeholders, including National Environment Management Authority (Nema) and Kilifi County Government, to plant the trees along that road. The goal is to plant 20,000 trees along the Mtwapa – Kwa Kadzengo – Kilifi Road.

3.8. Cruise Ship Terminal Launch

The Mombasa cruise ship terminal was finally opened after many idle months due to the COVID-19 pandemic. The terminal received World Odyssey in November and Nautica in December, carrying 800 and 500 cruise passengers, respectively. When welcoming Nautica, Tourism Cabinet Secretary Peninah Malonza said that at least three more cruise ships are expected to dock at the terminal by the end of March 2023.

The government also plans to improve facilities and services, including the diversification of shore excursions to help Mombasa stand out among other African cruise destinations. The government is also upgrading the Moi International Airport in



Source: Cruise Africa & Arabia

The Nautica in Mombasa



Source: Kenya Railways

Mombasa and Diani Airport in Kwale county to make the port more accessible to the global cruise market.

3.9. Nakuru Central Railway Station and Nakuru-Kisumu Meter Gauge Railway (MGR) (217 KM)

On Wednesday, July 27, 2022, H.E. the former president Uhuru Kenyatta commissioned the revitalized Nakuru-Kisumu Meter Gauge Railway and the refurbished Nakuru Central Railway Station.

Nakuru town started as a railway station on Kenya-Uganda railway line at the turn of 20th century. It was built in 1900 and later expanded in 1957. It sits on the east side of the centre of Nakuru. The railway line links the SGR to the MGR and will be a key transit station for cargo and passenger trains to and from Western Kenya. It will serve as a stopover station for trains headed for Eldoret, Kisumu, Malaba and Kampala. During his visit, he also commissioned the 456Km Longonot – Malaba Segment of the railway.

3.10. Kisumu Railway Station

On Monday, August 01, 2023, H.E. the former president Uhuru Kenyatta officially opened the

Kisumu Railway Station located on Busia Road next to Kisumu Cotton Mills. The station is important as it will reduce the cost of transportation for persons and goods, opening up the area for opportunities and linking it with external markets.



Source: Kenya Railways

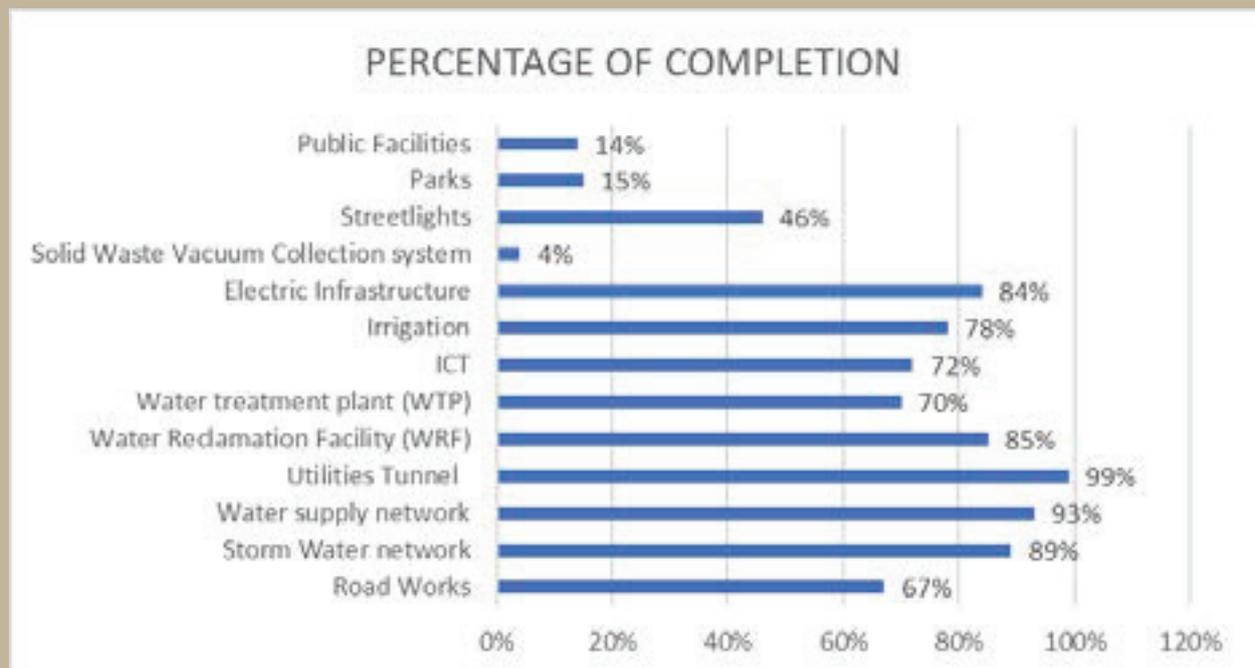


KONZA TECHNOPOLIS STATUS

Konza Technopolis is a 5,000-acres green field land located about 60km East of Nairobi along the Nairobi – Mombasa road. The Silicon Savanna City development is being handled in 3 Phases, with Phase I approximately 400 acres being underway.

In November 2022, AAK was hosted by the Konza Technopolis Development Authority on a build tour to assess the progress of the projects.

By the end of 2022, Phase I was 85% complete with a tentative completion percentage breakdown as follows:



4

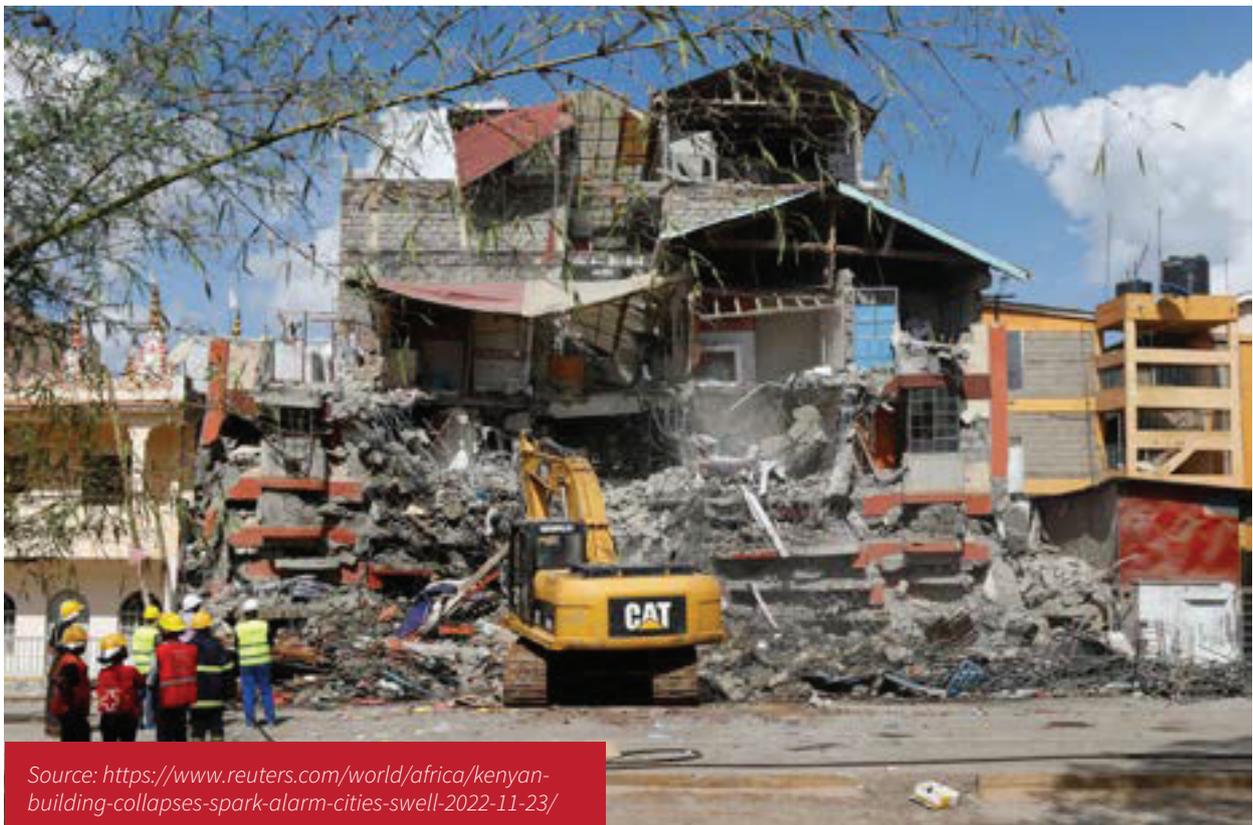
Collapse of Buildings in Kenya

Research by *Macrotrends* on urban population between 1960 and 2023 indicates that; the world urban population stands at approximately 56% globally and at 28% locally in Kenya. With the population increasingly moving to urban environments, cities grow leading to the acceleration of the demand for developments and viable infrastructure. Unlike rural or most sub-urban locations, construction in urban markets comes with added challenges that are contributed by demand and supply mechanisms in urban areas.

In the last 5 years, over 200 cases of collapsed buildings have been recorded across the globe. The collapse

of buildings has tragically become a common occurrence in most major cities in developing countries. Additionally, at least 61 cases of collapsed buildings were recorded across Nigeria in 2022, with Lagos having a majority of the cases.

In 2011, the government ordered the establishment of The National Construction Authority (NCA) which was mandated to control the construction industry in the country alongside the National Building Inspectorate (NBI). A 2018 audit report by the NBI shockingly indicated that out of 14,895 buildings audited across the country, 10,791 were unsafe for occupancy and needed reinforcement or demolition, 723 of the



Source: <https://www.reuters.com/world/africa/kenyan-building-collapses-spark-alarm-cities-swell-2022-11-23/>

buildings were deemed dangerous, 1217 were in fair condition and 2194 were safe.

According to the 2019 NCA audit report, in Kenya, there have been over 87 reported cases of collapsed buildings since 2015. These cases of collapsed buildings have led to the loss of lives with an estimated 200 people dead with more than 1000 people injured. From the recorded 87 cases, 66% of the buildings collapsed after completion while 34% during construction. Of the 87 buildings, 65% are residential buildings, 25% are commercial buildings and 10% are mixed-use developments. This number is seen to have increased between 2020 and 2022. Notoriously, the Nairobi Metropolitan Region has been observed to be the hotspot for these incidents with approximately 13 recorded cases of collapsed buildings in 2022.

The collapse of buildings, especially in Kenya can be tied to several factors. According to the World Bank, the housing deficit in the country stands at 2 million with an increase of 200,000 units annually. This has led to high demand for housing with high supply competition within the public and private sectors. As a result, developers have capitalized on the shortage of housing in the country and have erected buildings hastily and without caution, especially in urban areas.

Notably, developers are seen to focus on saving money at the expense of the quality of the projects. This has heavily contributed to issues such as: poor workmanship, non-compliance with building standards and impunity during construction. Initial expert observations have indicated that the most common reasons for the collapsing of buildings

include poor structural design; substandard materials; poor workmanship and an influx of ill-trained construction workers in the industry.

In the past, after the occurrence of such incidents, nothing much gets done. Solving this menace requires all key stakeholders in the construction industry to work together. So far a multi-agency team formed between NCA, BORAQS and EBK spearheaded by the State Department of Public Works. More needs to be done to include starting with county governments, regulators of professionals, the National Construction Authority, the National Building Inspectorate, and the National Environment Management Authority - to work with the private sector and professionals to bring an end to this menace. Moving forward, strict building inspection should be done with enforcement officers held liable for any collapse in their jurisdiction, professionals listed in partaking different projects should be carefully vetted and held responsible for such incidents and materials used for construction should be keenly inspected before the commencement of any construction. Additionally, any rogue developers found guilty of construction misconduct should be dealt with, in accordance with the law.

The Architectural Association of Kenya is willing and ready to partner with the construction regulators to develop a proactive approach to solve this challenge and prevent it from happening again as we continue to promote excellence and integrity in the built environment.

A 2018 AUDIT REPORT BY THE NBI



14,895

Buildings

buildings audited across the country



10,791

Buildings

were unsafe for occupancy and needed reinforcement or demolition



723

Buildings

were deemed dangerous

5

Is Your Home Healthy?

As the COVID-19 pandemic spread worldwide, it brought an unprecedented wave of interruptions to the existing social order. In Kenya, the first COVID-19 case was reported on 13 March 2020. The government responded by adopting policy positions and instituting protocols and measures to curb the spread of the pandemic. These included hand washing, working from home, physical distancing, self-isolation, curfews, and community-wide lockdowns, which included the closure of businesses and schools.

One thing that the COVID-19 pandemic brought to the fore was that most homes do not adhere to health standards. The pandemic redefined the living norm, and the home became the first line of defence when governments put in place protocols to reduce the spread of the virus.

AAK formed two task forces, the AAK COVID-19 Response Teams: multi-disciplinary collaborative technical advisory committees to deal with the ongoing crisis. One task force worked on and published the Proposed guidelines for the safe re-opening of schools post COVID-19, Safe Learning Post COVID-19 found [HERE](https://aak.or.ke/download/safe-learning-post-covid-19/) (https://aak.or.ke/download/safe-learning-post-covid-19/). The second task force worked on and published the Proposed Guidelines on Planning and Design of Covid-19 Quarantine and Treatment Centres and Long-term Infrastructural Interventions for the Kenyan Context found [HERE](https://aak.or.ke/download/covid-19-first-edition-response-handbook/) (https://aak.or.ke/download/covid-19-first-edition-response-handbook/)



In 2022, AAK in collaboration with Habitat for Humanity International (HFHI)

conducted a Housing Assessment study on the impact of the COVID-19 pandemic on housing in informal settlements within the Nairobi Metropolitan Region.

In 2022, AAK in collaboration with Habitat for Humanity International (HFHI) conducted a Housing Assessment study on the impact of the COVID-19 pandemic on housing in informal settlements within the Nairobi Metropolitan Region. It revealed that it was very challenging for people living in the informal settlements to comply with some of the prevention protocols, such as; social distancing, since the dominant housing typology is single rooms. The pandemic also hit when these settlements had been facing a perennial lack and shortage of basic infrastructure such as water and sanitation, increasing the prevalence of infection among household members.

Africa has witnessed many epidemics and pandemics including the current COVID-19 pandemic. Health crises such as ebola, cholera and malaria were thought to be the game changers that would alter building and housing designs. However, progress has been very sluggish and the situation has remained largely unchanged.

Global planning principles provide for the creation of sustainable living with adequate access to proper housing and basic essential infrastructure within the neighborhoods. Unfortunately, 80% of

buildings in Kenya are built without engaging professionals. This means that most buildings in the country are built by unqualified persons and lack the minimum standards of a healthy home. Many of these buildings suffer from sick building syndrome- a cause of numerous illnesses experienced by residents who are completely oblivious of the cause.

The COVID-19 pandemic, therefore, has presented us with an opportunity to identify the necessary shifts in building and housing designs or forms that can mitigate the spread of future contagions, reducing their adverse economic, social, and environmental impacts, especially in informal settlements. It also offers an opportunity to reconfigure building and housing designs to ensure significant standards of light, ventilation, and sanitation and adopt new ones to promote building design flexibility and the avoidance of overcrowding.

The AAK, together with HFHI, developed the Healthy Homes Guidelines and Checklist to provide design standards that will help all housing typologies, including those in informal settlements, to be resilient to the COVID-19 pandemic and future pandemics. In their simple form, the guidelines are privy to the fact that most builders are self-builders who engage artisans and unqualified contractors. They provide the minimum standards which should be adhered to during construction and renovation and can guide vetting of already constructed homes. The last section of the document contains a checklist of all the aspects of a home that the user should consider. This enables them to get a clear picture of the health aspects of the house and know if it is a fit one.

As we navigate the third year of the pandemic and adapt to the new normal, combining the Right to the City, the Right to Housing, and the Right to Health puts us one step closer to building back better as we leave no one or no place behind. The pandemic changed the status quo, and we must adapt or perish. With more activities happening at home than the traditional definition, there is a need to redefine, redesign, and reimagine how buildings and homes should be constructed or redesigned post the COVID-19 pandemic.

There is a need to communicate these guidelines widely so our citizens, construction and health practitioners are aware of the health benefits that come with the design of healthy and dignified homes. We encourage developers of homes to retrofit their structures so they provide more

ambient spaces for living.

As we continue to advocate for the role of built environment professionals in the construction industry, this is an immediate solution to achieving healthy homes in our country. The Guidelines were officially launched on Friday 18th, November 2022 in the presence of the Habitat for Humanity International, National Construction Authority, the State Department for Public Works, the Ministry of Health, the National Council of Persons with Disabilities (NCPWD), academia, organizations in the health and construction sector and the community. The guidelines are available on our website [HERE](#).

AFFORDABLE HOUSING PROGRAMME: LESSONS LEARNT

In 2017, the Jubilee Government embarked on the Affordable Housing Programme (AHP), an ambitious project under the Big Four Agenda that aimed to produce 500,000 homes between December 2017 and June 2022. However, the target was far from being achieved by the end of the 5-year period with under 14,000 units out of the proposed 500,000 units built. The government was to spend KES 127 billion to finance building houses, roads, and water and provide access to cheap credit for potential home owners. The project intended to facilitate the development of houses under three categories: Flagship projects (to build investor confidence and create momentum for the project); Flagship social housing projects (aimed at improving informal settlements); and County projects (based on MoUs signed with county governments which would receive support from the national government

13,529

units have been developed with minimal delivery in the social housing category, according to the 2022 State of Housing Report by the Economic and Social Rights Center-Haki Jamii





by developing infrastructure for land set aside for housing projects).

According to the 2022 State of Housing Report by the Economic and Social Rights Center-Haki Jamii, only a total of 13,529 units have been developed with minimal delivery in the social housing category. The affordability of these houses for displaced persons who failed to qualify for mortgages has never been resolved whereby the terms of payment for the housing exclude the target group. This was due to the high down payment of 12.5% and a short payment period of balances from 90 days to 3 years. It is also noteworthy that the COVID-19 pandemic greatly derailed the project as more resources were transferred to the health sector.

This was not the first time the Kenyan government had initiated such a programme- the first medium-term plan (2009-2012) of the Kenya Vision 2030 targeted increasing housing production from 35,000 units annually to 200,000 units annually for all income levels. Yet, according to the 2017 World Bank Economic Update, the government delivered only 3,000 housing units in that period.

Unfortunately, some of the housing projects resulted in the unprocedural and illegal displacement of people even during the pandemic. Over the period,

evictions were mostly experienced in Nairobi, Kisumu and Mombasa City Counties including in Mukuru settlements, Deep Sea, Upendo Village, Buxton, Changamwe, Kibos, Makasembo, Ondiek, Arina, Mamboleo, Lumumba, Otonglo, Lela, among others.

H.E. the President Dr. William Ruto, CGH also launched a plan to build 250,000 houses annually for low income earners. The programme targets 6.5 million Kenyans living in Kenyan informal settlements.

The state house spokes person during his inaugural speech confirmed that 39 counties have so far identified land in which affordable housing units can be built and the housing agenda is on course with a robust and active pipeline of 376 projects set to deliver 599,000 housing units across the country.

This far, the president has commissioned 24,218 units i.e. 13,076 units in Mukuru (Nairobi), 4,000 units in Kibra Soweto B (Nairobi), 1,728 units in Shauri Moyo 'A' estate (Nairobi), and 5,360 units through the Mavoko affordable housing project (Machakos). There are also 9,935 units that are currently ongoing i.e. 1,500 in Pangani (Nairobi), 605 Bondeni (Mombasa), 1,850 in Buxton (Mombasa) and 1,800 in Bachelor Jeevanje estate (Nairobi)



and 4,118 units in Moke Gardens (Machakos).

The government is also set to launch 35,980 units i.e 30,000 units in Makongeni Affordable Housing Project (Nairobi), 2,420 units in Starehe, (Nairobi), 1,200 units in Ruiru Affordable Housing Project (Kiambu), 360 units in Thika Affordable Housing Project (Kiambu) and 2,000 in Homa Bay started phase one.

It is worth noting that before embarking on a similar project, the incoming government should learn from these past failures. Notably, there is an inadequate supply of affordable serviced land. The soaring land prices, especially for serviced land, significantly affect housing affordability. Similarly, the lack of adequate infrastructure in most parts of the country forces developers to incur more costs, which are then transferred to the end buyer.

The cost of construction has been increasing over the years, reaching a record high in recent times. The sharp increase in construction materials has greatly contributed to this, and the re-introduction of Environmental Impact Assessment and related levy will only make this worse.

The capital-intensive nature of real estate development warrants the exploration of

alternative sources of capital. The Kenya Mortgage Refinance Company (KMRC) has been instrumental in increasing the availability and affordability of mortgages by offering fixed-rate long-term loans. However, the exclusion of employees in the informal sector cuts off a large percentage of the population. It is also impossible for the government to deliver such a volume of units by itself without the help of the private sector. Therefore, the government should incentivize the private sector and create a suitable environment by developing a clear framework of returns and revenue sharing, removing regulatory hindrances, and improving the approval processes, which are marred with significant delays.

After assessing various projects under the Jubilee government Affordable Housing Programme, several gaps were identified. Firstly, the one-phased procurement structure applied (i.e. Design-Finance-Build) locked out locals from tendering due to the lack of financial muscle. Being driven by finance, bidders had to partner with developers or financiers who in most instances already had international consultants on their teams thus the consultancy element gets overshadowed by the return of investment. As a result, the quality of the design was compromised. A multi-phased structure should be broken into Professional Consultancy

services (these can be prequalified beforehand and ensure local consultants take lead of the process), Financier/Developer, and Contractor. By separating these elements, the government will ensure better accountability as consultants are able to supervise construction and quality and cost control independently from the contractor.

Secondly, to realize holistic housing, the project should foster a sense of ownership, security, and belonging while complimenting the surrounding neighborhood character. A case in point is the design of the Park Road project, which had a mismatch in the provision of utilities provided against the population expected to be served. Additionally, there should be a comprehensive land-use plan incorporating both social and physical infrastructure to guide the provision of mass housing. Urban regeneration programs should be incorporated into such housing projects to prevent the new development from exerting pressure on the existing services. Likewise, leaving

the provision of infrastructure such as sewerage and solid waste disposal to private entities is unsustainable and expensive to maintain.

Finally, an impactful housing policy should be put in place to uphold the right of communities by conducting full disclosure, thorough enumeration, documentation and capacity building to ensure that the targeted communities are indeed the beneficiaries of the project. Government agencies should also follow due processes in the implementation of public projects by implementing resettlement guidelines, including communicating the rationale for compensation. This will require appropriate grievance redress mechanisms to be in place to prevent conflicts and forceful evictions.

Principles of Human Justice should prevail when implementation of large housing projects are being undertaken as stipulated in the Just City publication for Kenya found [HERE](https://library.fes.de/pdf-files/bueros/kenia/17107.pdf). (<https://library.fes.de/pdf-files/bueros/kenia/17107.pdf>)



H.E. William Ruto Launching the Mavoko Affordable Housing Project in December 2022

Source: The Kenyan Wallstreet

6

Green Buildings and the Climate Agenda



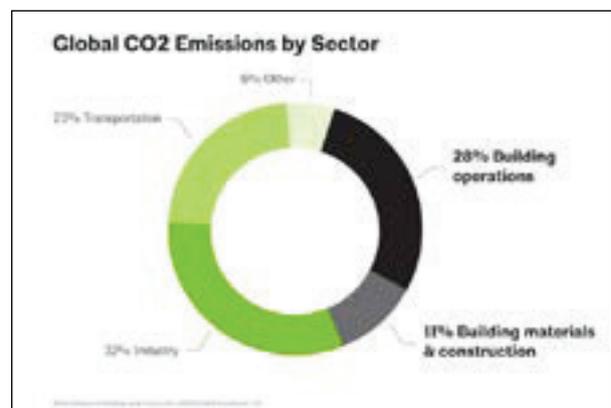
6.1. The Built Environment Vs Climate Justice

The adverse effects of climate change are manifesting considerably more quickly than scientists anticipated less than a decade ago¹. In July 2022, the United Kingdom experienced episodes of heat waves with temperatures rising up to 40°C. Additionally, Kenya has been on the receiving end of climate disparities. Just about the same time the UK tackled the high temperatures, Kenya on the other hand faced extremely low temperatures than ever experienced; with temperatures going as low as 5.70°C in some areas.

Climate change is directly tied to increased emission of greenhouse gasses (GHG) from our daily human activities. These human-generated gasses derive in part from different aspects of the built environment. The UN Intergovernmental Panel on Climate Change has drawn attention to the connection between elements of the built environment and climate change, noting that the following industries; land use, buildings, transportation, and energy supply have all seen

increases in global GHG emissions. According to Eurostat, greenhouse gasses emission increased by 6% in the first quarter of 2022 compared to 2021 across the globe.

According to research by Design@Open indicates that the built environment contributes to up to 39% of all global emissions, higher than other individual sectors. The built environment affects human decisions, which in turn have an impact on the global climate and people’s health. The built environment in contrast to the natural environment, consists of man-made elements of people’s surroundings, from small-scale to large-



¹ <https://www.ipcc.ch/report/ar6/wg2/>



scale profiles. Production and use of manufactured building materials; steel and cement are among the main contributors to climate change in the built environment.

To address challenges of built environment climate alteration, intentional steps should be undertaken. Embracing growth of the technology and identification of alternative building materials would be key to promoting climate justice across the globe. Advocacy and use of sustainable building materials should be highly integrated in the industry.

Where lack of need of a built form is identified, then buildings should not be erected. Minimization of new build directly equates to minimizing climate impact. In cases where buildings are essential, that is, not for developers profit benefits, the buildings should be zero operational carbon.

In this regard, green buildings should be the way to go. Recently developed by the AAK, **“Safari Green Building Index”** rating tool should be adequately utilized in structure planning, design, construction and approval of built form in our cities. High performing green buildings provide an opportunity

to reduce climate impact, with up to 50% reduced GHG emission.

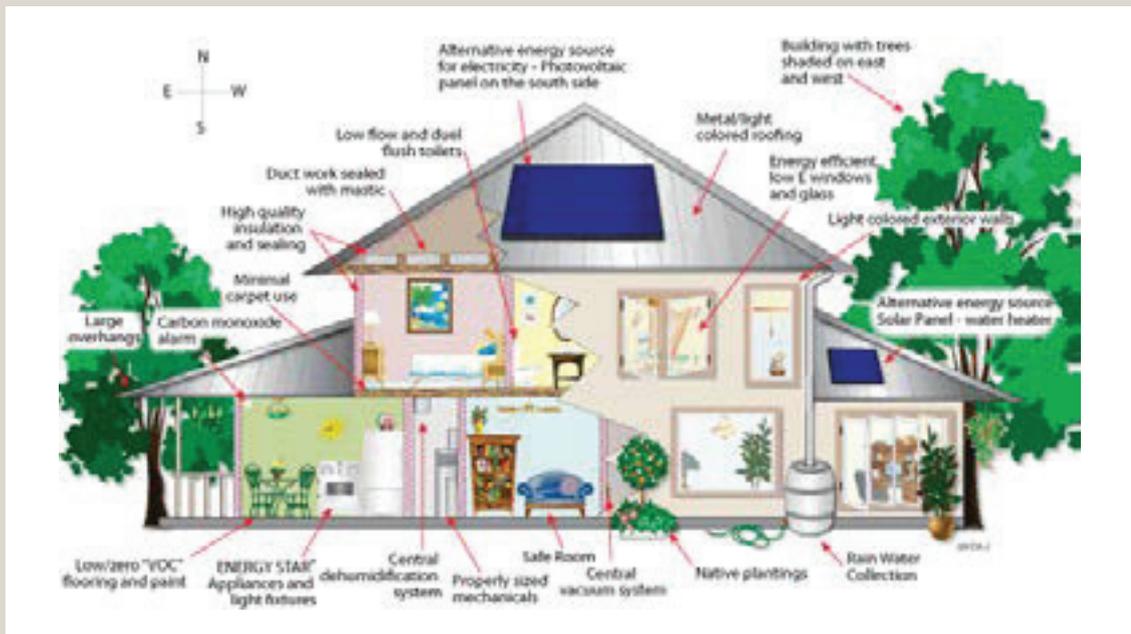
A sustainably built globe, with zero GHG emission equals climate justice!

6.2. Safari Green Building Index Rating Tool

In August 2021, the UK Climate Investments (UKCI) and FSD Africa Investments (FSDAi) confirmed a Ksh 5.2 billion funding commitment to the Kenyan Green affordable housing venture. The initiative targeted delivery of approximately 10,000 homes using modern green technologies.

In recognition of the growing concerns related to climate change, the Architectural Association of Kenya (AAK) through its Environmental Design Consultants Chapter technical team, has recently developed and launched the “Safari Green Building Index”- a green building certification tool. The Index clearly elaborates localized benchmarks and guidelines for assessing efforts to address climate change and environmental degradation through buildings.

Source: The Constructor; Building Ideas



The Safari Green Building Index aims at assessing built environment projects and constructions to establish their environmental performance across different climatic zones. It also seeks to provide leadership in sustainability through subsequent reduced energy loads and minimized carbon footprint.

It mainly targets new buildings to be constructed, existing buildings seeking for extensions as well as building conservations and heritage works. Buildings which adhere to the tool's requirements shall be eligible to green building certification according to the different classes subscribed by the tool.

For more information on the tool, kindly reach out to the AAK.

Ksh 5.2b

The UK Climate Investments (UKCI) and FSD Africa Investments (FSDAI) confirmed funding commitment to the Kenyan Green affordable housing venture.

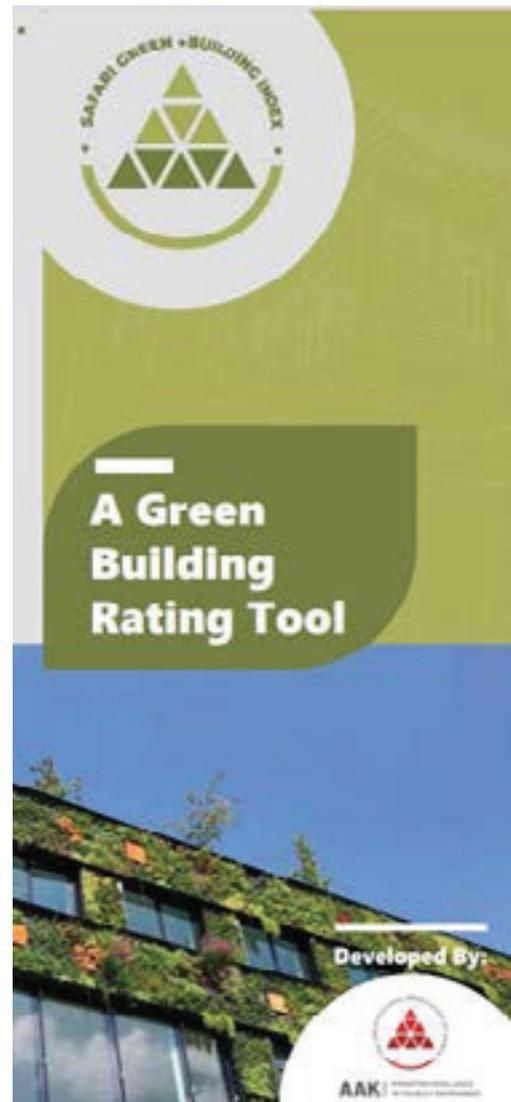


Image: Components of a Green Building

The Effect of The Russia-Ukraine War On The Built Industry

'We are living in unprecedented times' is a phrase we have all heard an earful of. Just as the world was starting to adapt to the new normal and recover from the COVID-19 pandemic, Russia invaded Ukraine in what Russian President Vladimir Putin referred to as a "special military operation." This has become an ongoing tragedy growing larger in scale by the day and has resulted in shocks, shortages, and price hacks disrupting the global commodity markets. The world responded to the escalation through imposition of severe sanctions on Russia by countries such as the United States, European Union, United Kingdom, and other countries across the globe. The sanctions are targeted at broad areas of the Russian economy, including bans on Russian imports, as well as oligarchs and high-profile political and military leaders in Russia and Belarus.

The construction industry was one of the hard-hit sectors by the COVID-19 pandemic with drastic price increases in commodities and uncontrollable delays by contractors due to the disrupted supply chains. The ongoing Russia-Ukraine War together with the imposed sanctions are causing and will continue to cause interruptions in the construction industry at a scale that is yet to be realized.

Russia and Ukraine are major suppliers of oil and natural gas, metals, raw materials, chemical products, and machinery. Russia controls a largely significant percentage of global copper reserves and is a major producer of nickel, aluminum, and platinum. Ukraine is one of Europe's top producers of uranium, titanium, manganese, iron and mercury ores, and has the third largest shale gas reserves in Europe. With the rise in the price of oil and gas, the impact is felt in many other interlinking important sectors such as manufacturing, transportation and construction among others.

Prices were already rising early in the year in anticipation of these resources' production and availability being restricted or scarce, and the market was and is still being compelled to turn to other nations and other supply networks for

alternatives. This was an option that proved to be costly due to the increased transportation distance and additional time needed to source the products.

Other than the fuel and oil, disruption of trade routes related to the conflict presented its own set of challenges. Shipping giants such as Maersk, Ocean Network Express, Hapag-Lloyd, and MSC suspended shipments from Russia. The region's cargo capacity is still under stress due to stopped or delays of local cargo ships and the cancellation or rerouting of some flights, which raised concerns about additional supply chain disruptions and increased the risk around worldwide supplies of multiple products. Further, closed shipping ports around the Black Sea stagnated transport. Air shipment took longer routes to avoid Russian airspace. All these led to delays and blockages for those dependent on airfreight and ocean transport.

It is estimated that construction projects will continue to suffer from higher production costs, delays, and labour shortages. This is seriously harming parties' legal duties under construction contracts and fundamentally changing the financial terms of previous contracts. Legal issues are likely to arise if those contractual responsibilities are unclear. Contractors are being warned to take the required precautions for the anticipated supply-chain disruption as both big businesses and independent contractors will be impacted.



8

Price Increase of Construction Materials

The built and construction industry was affected by the COVID-19 pandemic resulting in supply chain issues, especially in the year 2020. The Industry was hopeful that things would begin to ease up and allow for stabilization and recovery of the industry. However, in 2022, the unprecedented Russia-Ukraine crisis severely affected the situation; both directly, due to the primary production of specific materials stemming from those countries, and indirectly, due to the conflict's overall effects on the global supply chain.

The prices and availability of essential construction materials like steel, paint, aluminium, cement and PVC continue to remain unreliable in Kenya. The average price of a 50kg cement bag was Ksh 550 as of June 2021 compared to Ksh 650 in

June 2022. Locally, a kilo of steel rose from Ksh 100 to Ksh 180 late last year. The Russia- Ukraine war accounted for the majority increase in steel prices in Kenya and globally. In January 2023, The New York Stock exchange reported that the price of steel increased by 29.5% in Additionally, there has been an increase in paint prices in Kenya, this is a result of paint manufacturers having to pay a 10% excise tax on imported resin, in addition to 16% VAT on their petroleum-based ingredients.

Astronomical increases in fuel and transport costs have impacted construction costs to rise too. The transport industry directly influences construction material prices; as fuel prices go up so does material prices. A continuous considerable increase in fuel



prices from Ksh127 in June 2021 to Ksh 159 in June 2022 to Ksh 177 in December 2022 was also noted.

A report by Integrum indicated that in 2022, the construction costs in Kenya averaged from Ksh 34,650 - Ksh 77,500 per square meter. Which is equivalent to Ksh 3,219 - Ksh 7,200 per square foot. The 2021 cost was Ksh 33,450 – Ksh 72,400 per square meter, which is equivalent to Ksh 3,135 - Kshs6,785 per square foot.

The construction cost, therefore, rose by 2.7% - 6.11% over the past year as of June 2022.

Currently, the Industry is recovering and prices are headed to stabilize but things still remain uncertain. This is because the Russia- Ukraine war is still ongoing, and fuel prices keep increasing.



Construction Cost
Ksh 34,650
 -
Ksh 77,500
 per square meter

Construction Cost
 Rose over the past year
2.7% - 6.11%
 as of June 2022

Fuel
 Increased to
Ksh 177
 in December 2022

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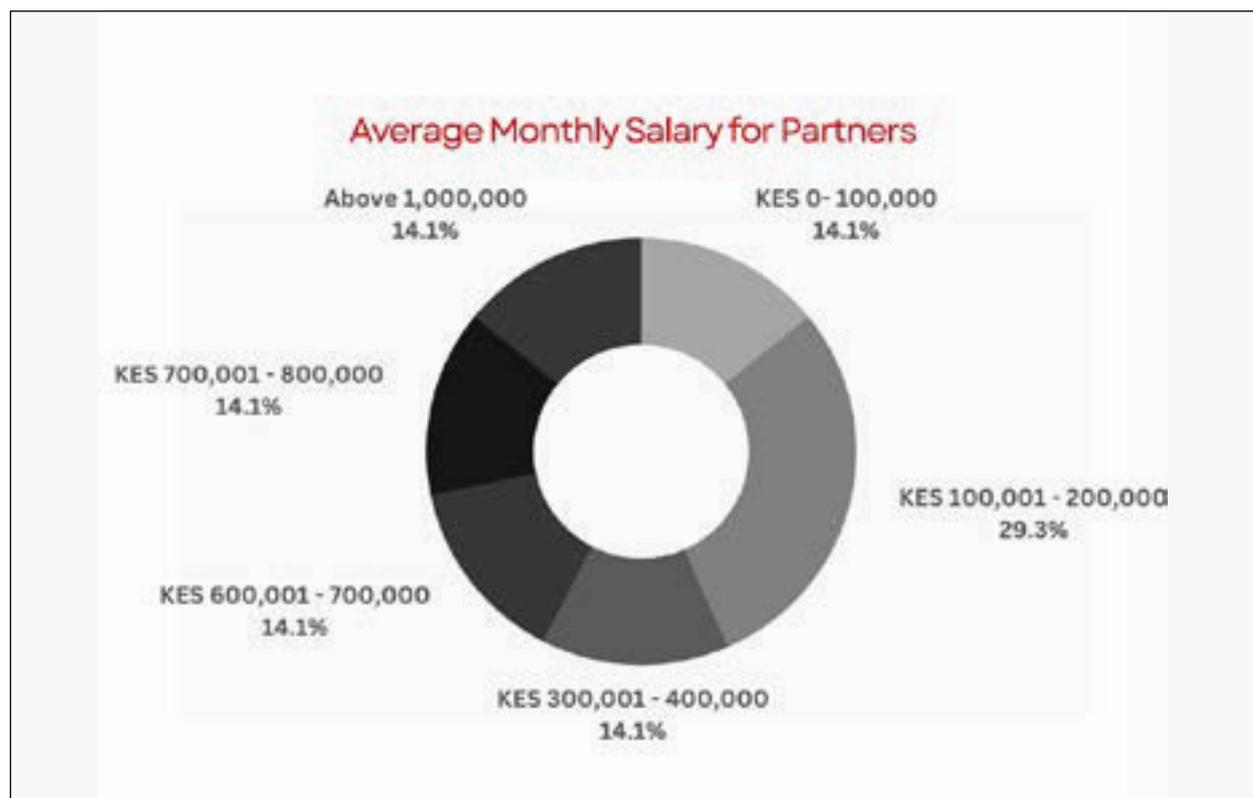
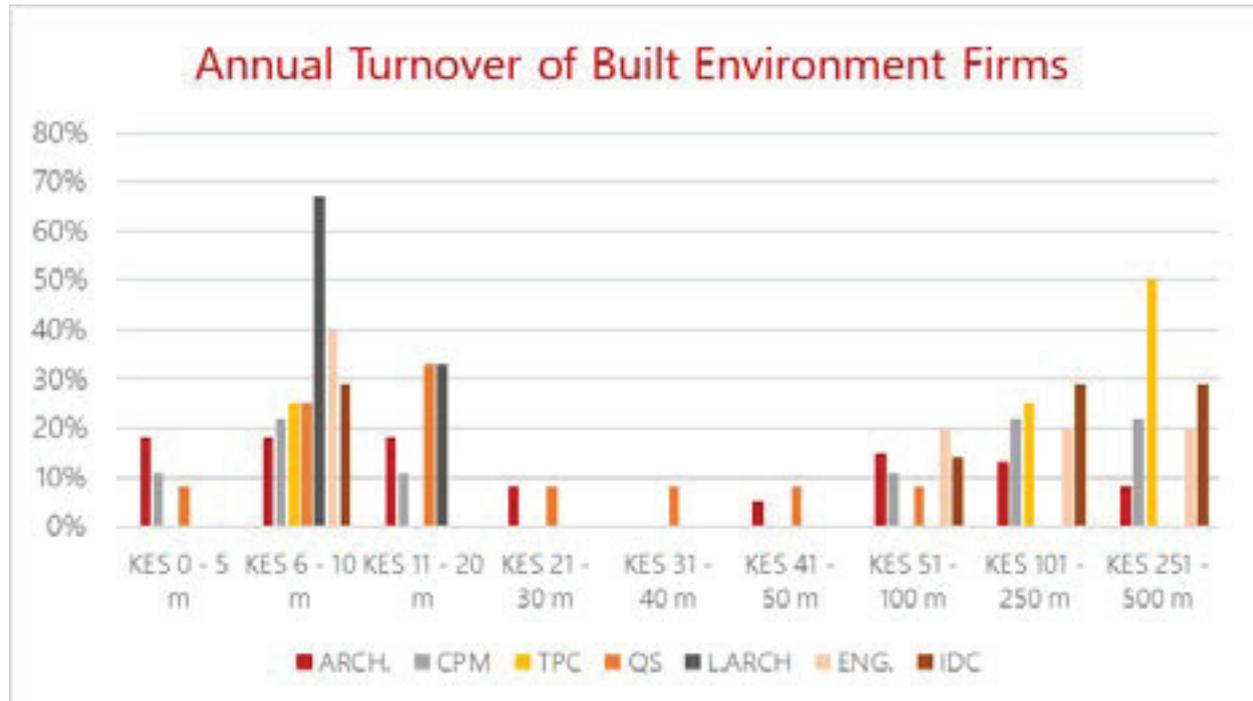
AAK Salary Survey 2022

AAK rolled out a salary survey among its firm members in July 2022 to obtain information on salaries and benefits paid to built environment professionals. The survey gathers data across all eight professions the Association represents, including Architecture, Quantity Survey, Construction Project Management, Engineering, Environmental Design Consultancy, Town Planning, Landscape Architecture, and Interior Design. The survey is an essential guide to the built environment for employers, employees, and job seekers as it presents the current remuneration rates in light of the

economic changes in the country.

This second edition was timely when the industry and the country were recovering from the ravages of the Covid-19 pandemic. When the pandemic hit, all aspects of the economy were affected, with built industry firms experiencing low work volumes and payment defaults by clients, which resulted in low revenues, forcing companies to impose pay cuts and lay-offs. The survey is envisioned to capture such economic fluctuations, including the rate of inflation and the cost of living.





The wages and benefits paid to professionals are significantly impacted by the state of the economy since it influences the volume of work, clients making their payments, and the revenues earned. The determination of salaries also seems arbitrary across all the Built environment professional Firms surveyed despite the profession.

Remarkably, the survey yielded insightful recommendations, including the need to increase the number of employment position categories and the inclusion of hourly rates and overtime in future surveys. Find the full 2022 Salary Survey Report [HERE](#).

10 Technology and the Built Environment

10.1. Jenga Green Library

The Jenga Green Library app was developed by the Kenya Green Building Society (KGBS) in partnership with FSD Kenya. This is a green building material and services directory for displaying the entire supply chain of sustainable building materials and services that reduce environmental pollution. The app seeks to assist developers, buyers, homeowners, and urban planners in efficiently identifying green products and service providers who drive towards sustainability within the built environment.

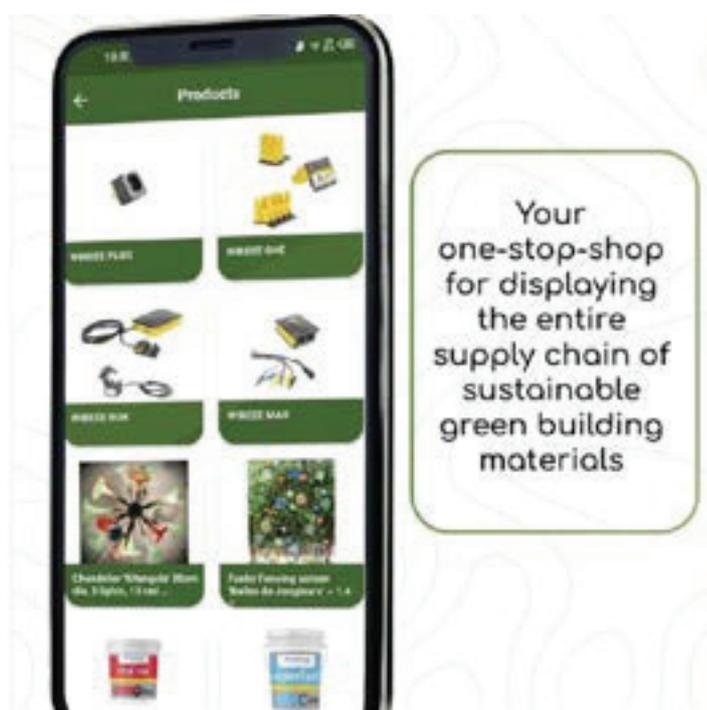
The Jenga Green Library aims to reduce waste and pollution during the delivery of the built environment by encouraging the use of low-carbon materials; assist developers and homeowners in selecting products and materials that perform well over time and do not degrade, which

is an important aspect of circularity/sustainability in the building sector; and advise policymakers on how to implement a circular model in the building and construction industry.

The application allows listings of clear environmentally friendly products and services from manufacturers, suppliers, distributors, facility and asset managers, developers, contractors, utilities, service providers and others related to the green building industry. The application is available on the KGBS website and is downloadable free of charge. The application currently hosts 140+ products from 20+ service providers. Kenya Green Building Society will regularly update the directory as more suppliers submit information about their products and services.

10.2. Nyumba Mkononi App

In Kenya, most people looking to build their houses do it in bits and phases. However, this poses a great challenge as the materials and buildings end up being lost or wasted due to theft and/or weather elements. We are currently living in unprecedented times, first caused by the COVID-19 pandemic and before the construction sector could heal came the Russia-Ukraine conflict. The built industry has been one of the hard-hit sectors with high price increases of up to double for materials.





The Nyumba Mkononi App is a platform that brings together dozens of players in the construction industry with a common goal of enabling families to have shelter. The app connects people building homes to suppliers and manufacturers in the construction sector. It allows the home builders to make payments over time until they have enough materials and are ready to build their homes to then collect the materials.

This app enables those building homes to put aside enough money by channelling it into building materials avoiding inflation and ensuring disciplined saving. The app operates on the belief that starting to construct a house on one's Smartphone by purchasing materials in the most affordable bits, regular reminders on targets not only activates on subconscious which starts

generating creative ideas to achieve one's goal but it also programs one's brain to readily perceive and recognize the resources needed to achieve ones dream home.

10.3. Jumba Construction App

If there is one thing the COVID-19 pandemic taught us, it is that the world is going digital and we should adapt to meet the changing demands. Jumba construction App is a Business to Business and financing platform that simplifies the supply and purchase of construction materials by connecting manufacturers to hardware stores.

The startup received a US\$1 million pre-seed investment from investors including Enza Capital, Seedstars International Ventures, Chandaria Capital, Future Africa, Logos Ventures and First Check Africa, as well as several angel investors, among them startup founders and industry experts.

The App is currently live in Nairobi, and plans to expand to Garissa, Nakuru, Njoro and other urban centers across Kenya and East Africa. The benefits of using the Jumba platform include: Better cash flow as one is able to fulfill more orders daily; stock management and efficient delivery; growth as one is able to access more cash flow to continue their business; and, transparency as one is able to track their spending.

Development Control in Kenya

11.1. Automation of Development Control in Kenya

The Architectural Association of Kenya often engages in advocacy research on behalf of its members to influence the policy environment of the built sector. The aim of this is to promote professional excellence and integrity in the built environment. Particularly, one of its main interests is to advocate for efficient Development Control Processes in different Counties.

The AAK undertook a study on Development Control (DC) Frameworks in Kenya (2010) which highlighted the challenges faced and prospects of Development Control by the local authorities (counties). In 2015, the association published a Policy Position Paper on the Automation of Development Control in Kenya which sought to bring in interventions for the improvement of development control frameworks in the country.

In regards to the ease of obtaining construction permits, according to the World Bank Doing Business Archive, Kenya was ranked position 105 in 2020¹ with a 67.6 score up from 63.5 in 2019. This improvement can mainly be attributed to the automation of Development Control processes in some counties including: Nairobi, Kiambu, Kajiado, Kisumu and Mombasa. Automation of development control has generally improved the efficiency of DC processes, increased the number of development applications approved which in turn has increased revenue generation for these counties.

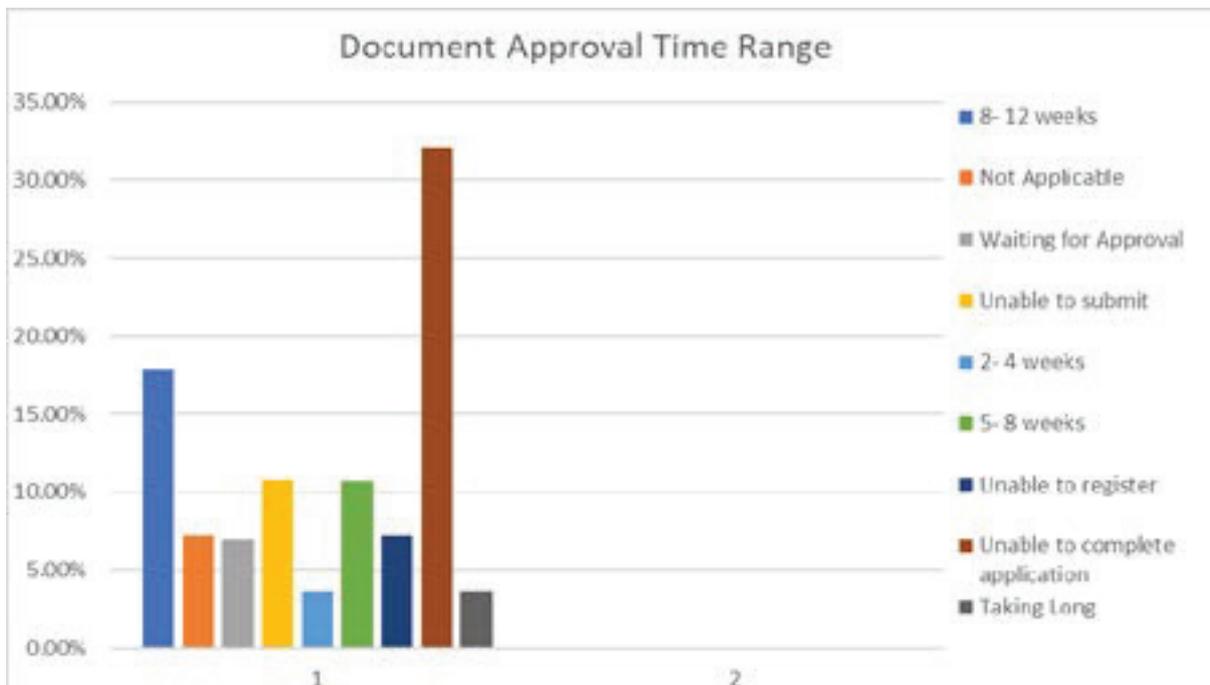
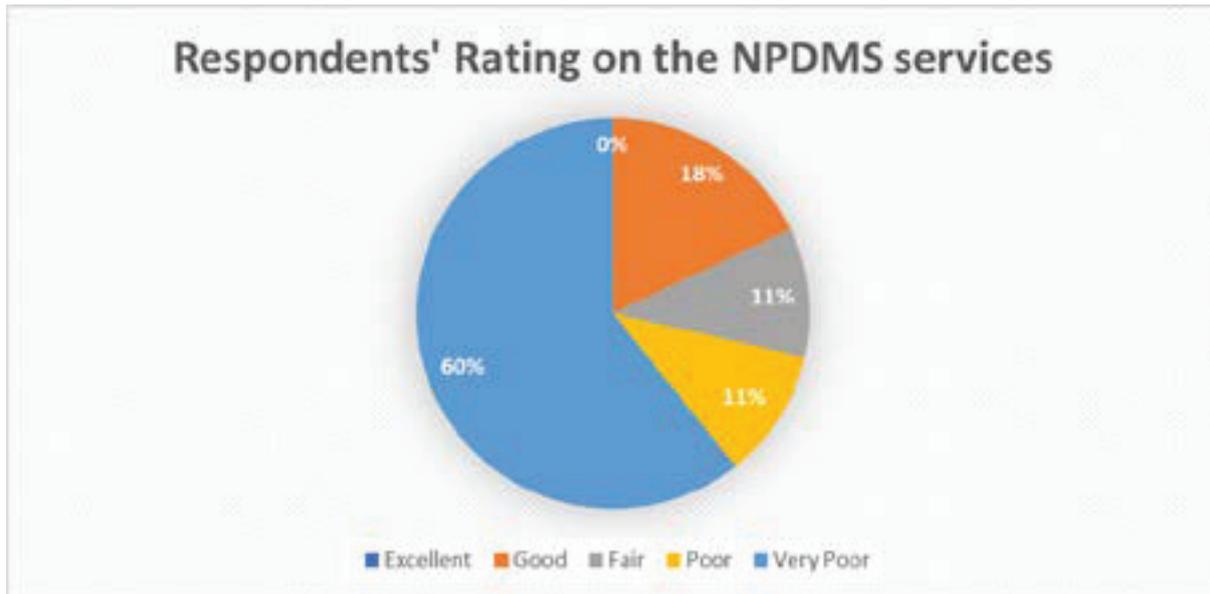
Notwithstanding the fact that the electronic systems offer a vast pool of opportunities in improving the DC processes at the county level, these systems have also posed some challenges hindering effective DC. Recently, the AAK conducted surveys to assess the functionality of the automated DC systems in Kiambu and Nairobi Counties among its members.

On 16th March 2022, Nairobi County shifted building, development and planning approval from the e-DAMS to the Nairobi eServices Portal (NRS). However, from the survey conducted, respondents indicated that since the migration of the Development Control services, service provision and efficiency of the system have become a challenge. This was illustrated by 60.7% of respondents who rated the system as very poor and only 17.9% of respondents indicating that the Nairobi Planning & Development Management System (NPDMS) was effective.

Despite the system being praised for less online traffic as compared to the previous e-DAMS system some respondents indicated that due to poor sensitization on the NPDMS to users, issues of tenure of the system might be of concern. In addition, no significant change on the NPDMS was noted from the previous e-DAMS system. Emerging issues from the survey varied from issues of the system not being user-friendly, professionals having no access to the system, challenges in submitting applications for approval, system failure and delayed approval timelines.

On 27th April 2021, the National government through the Ministry of Lands and Physical Planning embarked on the digitization and registration of

2 <https://archive.doingbusiness.org/en/data/exploreconomies/kenya>



land parcels on the National Land Information Management System (NLIMS) dubbed Ardhi Sasa. This has however posed a challenge for development control processes in Nairobi City County. AAK received complaints that the NPDMS system only recognizes plots registered under L.R. NO. and does not capture those registered under Block No; consequently affecting the DC process.

The survey on e-DAMS user experience in Kiambu County's on the other hand intended to understand user experiences and challenges faced by applicants in the approval processes. 80% of plans submitted by the respondents were still pending

with approval taking an average of 8 weeks to one year before approval is granted. Pending approval is mainly due to system failure, lack of direct communication means with the approvers and lack of personnel handling the DC processes. For these reasons, most applicants are forced to visit both Nairobi City County and the Kiambu County offices to follow up on the pending approval.

With the wake of improving and dynamism of technology, there are great opportunities to effectively conduct development control in the country. In this regard, the introduction of a tech-conversant, user-friendly and time-bound tracking

system is necessary. Additionally, it is important to have qualified, licensed and accountable professionals handling development control within our counties' jurisdiction.

In this regard, the Architectural Association of Kenya wrote letters of concern to both Nairobi Metropolitan Services and the Kiambu County Government highlighting the findings from the surveys; challenges being faced as we were pitching ideal solutions to the said challenges. The AAK, however, pushes for a central development control system in Kenya, which will be a one-stop shop for all counties. This will come in handy to curb challenges of development control in the county including expenses of automation of the process.

AAK is at the forefront of championing for automation of Development Control and continues to provide information on Development Control on our website through the Buildhub tab [HERE](http://www.buildhub.aak.or.ke) (www.buildhub.aak.or.ke). It provides information on step by step procedures, duration for approval and fee charges for obtaining Building Permits or

Planning Approvals in the counties in Kenya. This far, we have managed to upload information on 27 counties and we aim to upload information on all counties by the end of the year.

11.2. Development Applications Approvals

11.2.1. National Construction Authority

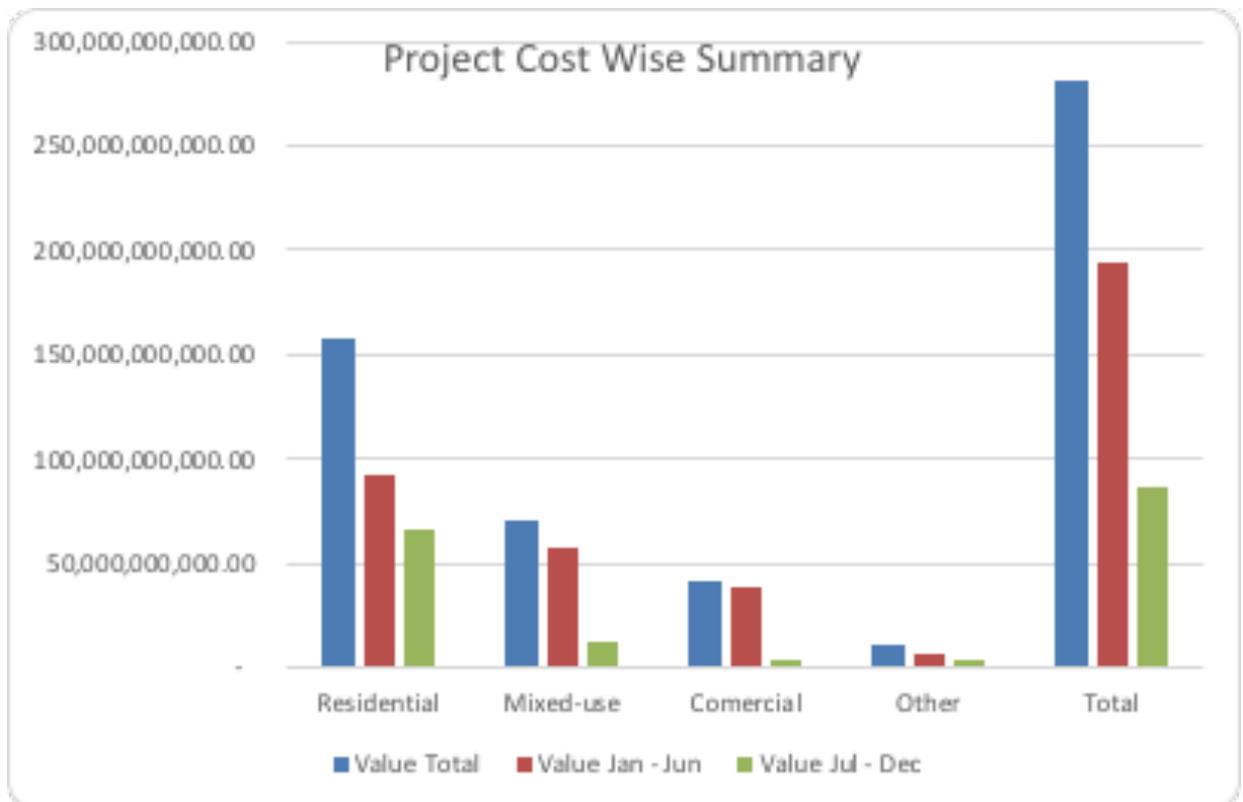
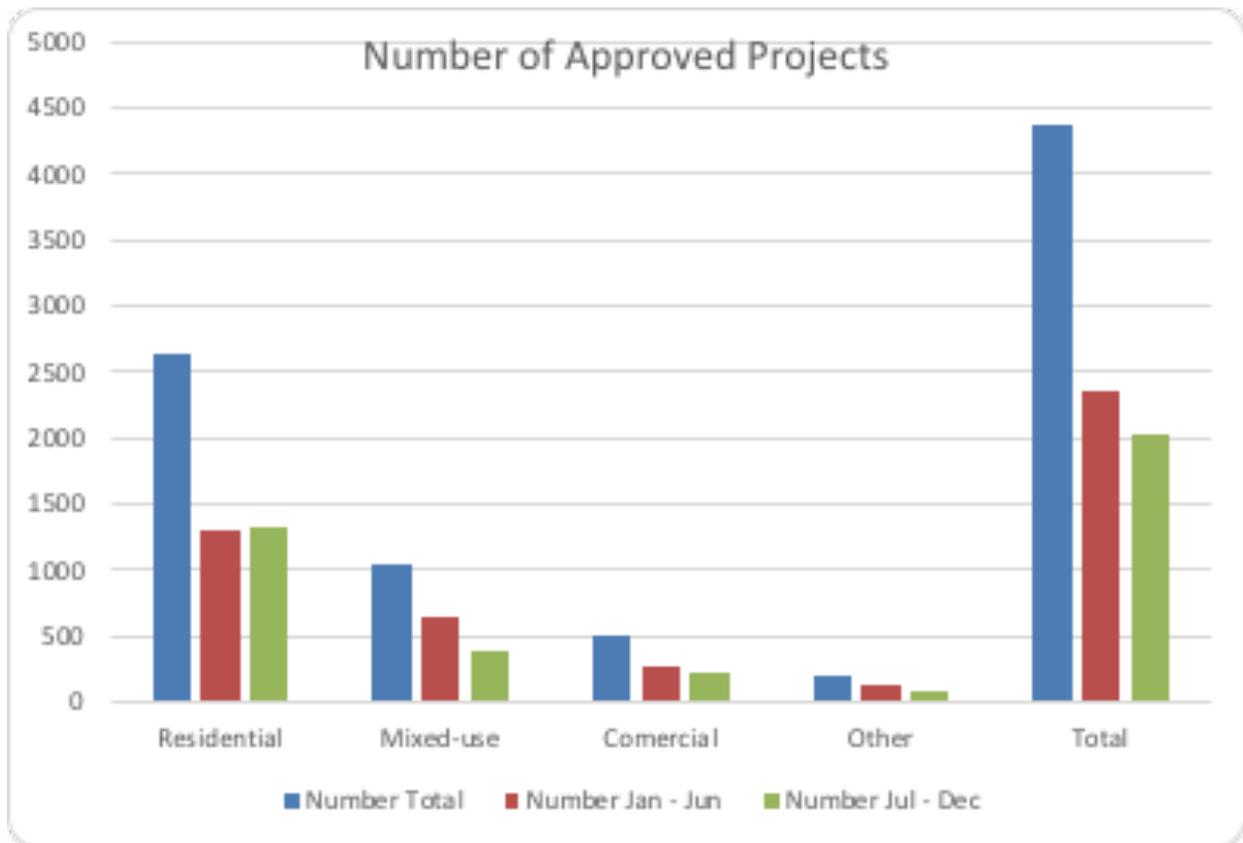
In the period between 01 January to 31 December, the National Construction Authority (NCA) received a total of 8,154 applications for project registration and approved 4,377 (53.7%) of the projects. NCA also inspected 26,060 construction projects in this period. Out of the total, they suspended 18,192 (69.8%) of the projects due to non-compliance.

Comparison between the first half and the second half of the year is as below:

Description	Total	01 January - 31 June	01 July - 31 December
Project Applications Received	8,154	3,614	4,540
Project Applications Approved	4,377	2,355	2,022
Projects Inspected	26,060	13,878	12,182
Projects suspended	18,197	9,102	9,095

The breakdown of the approved projects and their respective costs is as below.

Project type	Number			Value in KES		
	Total	Jan - Jun	Jul - Dec	Total	Jan - Jun	Jul - Dec
Residential	2631	1308	1323	158,345,409,110.00	92,019,073,256.00	66,326,335,854.00
Mixed-use	1037	642	395	70,707,322,404.00	57,593,996,921.00	13,113,325,483.00
Commercial	498	272	226	41,425,560,811.00	38,270,929,550.00	3,154,631,261.00
Other	211	133	78	10,457,246,890.00	6,237,786,311.00	4,219,460,579.00
Total	4377	2355	2022	280,935,539,215.00	194,121,786,038.00	86,813,753,177.00



11.2.2. Nairobi Metropolitan Services/ Nairobi County Government

Building Plans

Month	No of Plans	Estimated Cost	Submission Fee
January	188	11,064,997,873.00	37,300,564.00
February	216	12,649,024,760.00	74,189,867.00
March	206	18,690,925,000.00	101,129,733.00
April	468	50,017,405,600.00	187,690,389.00
May	30	3,548,710,045.00	4,707,398.00
June	223	15,494,204,954.00	63,479,896.00
July	198	18,834,218,570.00	87,044,326.00
August	102	8,492,797,696.00	38,168,478.00
September	178	17,138,532,750.00	79,668,325.00
October	150	30,183,008,000.00	34,718,951.00
November	119	5,513,469,000.00	17,405,483.00
December	194	32,218,916,405.00	91,743,289.00
Total	2272	223,846,210,653.00	817,246,699.00

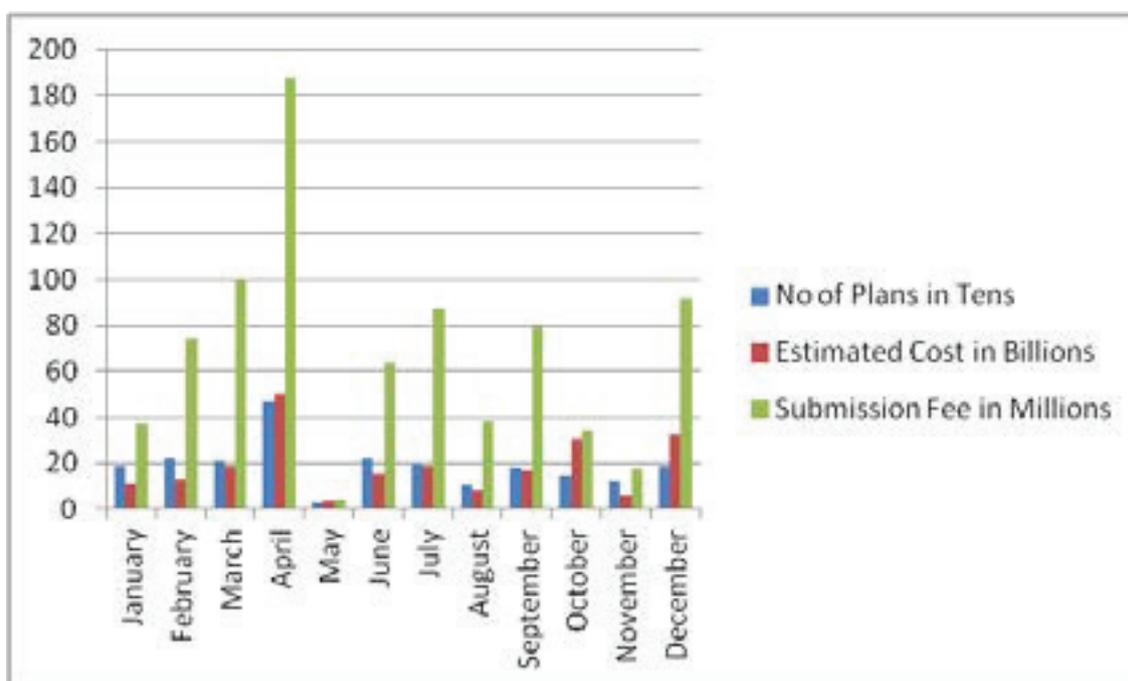
Between January to June 2022, the National Construction Authority approved a total of 1,331 building plans, with an estimated cost of KES. 111,465,268,232, with the NMS Development Control earning a total of KES. 468,497,845 in permitting fees.

Between July to December 2022, National Construction Authority approved a total of 941 building plans, with an estimated cost of KES. 112,380,969,421, with the NMS Development Control earning a total of KES. 348,748,852 in permitting fees.

April recorded the highest number of plans approved at 464, followed by June at 223 and May at the lowest at 30.

April had the highest cost estimate at KES. 50,017,405,600, followed by March at KES. 18,690,925,000 and May the lowest cost estimate at KES. 3,548,710,045.

The NMS DC earned the highest permitting fee in April at KES. 187,690,389, followed by March at KES. 101,129,733 and May was the lowest at KES. 4,707,398.



Occupation Certificates

Approved Occupation Certificates between January to December

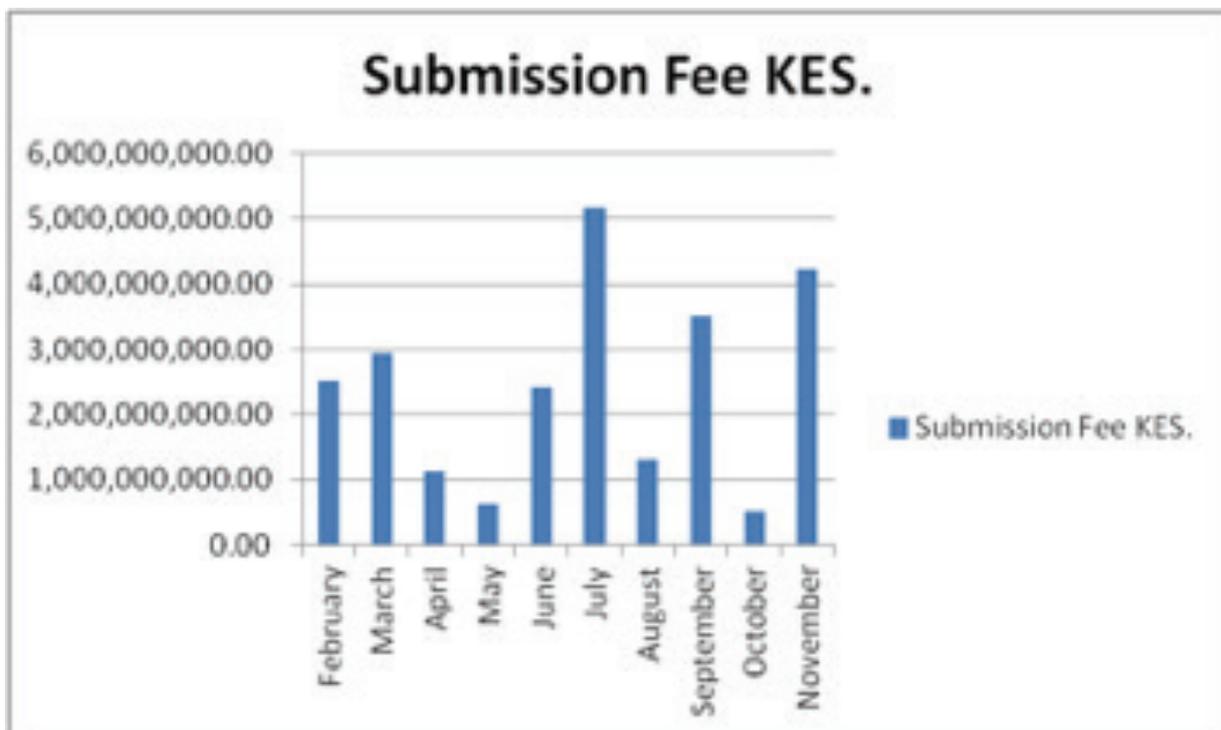
The Building Inspection Unit of the NMS issued a total of 139 occupation certificates and collected submission fees worth KES. 24,391,850,692.

Month	No. of Occupation Certificates	Submission Fee KES.
February	17	2,519,089,715.00
March	19	2,927,179,250.00
April	8	1,135,650,125.00
May	12	636,530,470.00
June	15	2,426,000,680.00
July	13	5,176,446,985.00
August	13	1,315,037,000.00
September	21	3,520,390,367.00
October	6	518,700,000.00
November	11	4,216,826,100.00
GRAND TOTAL	135	24,391,850,692.00

a. Certificates issued



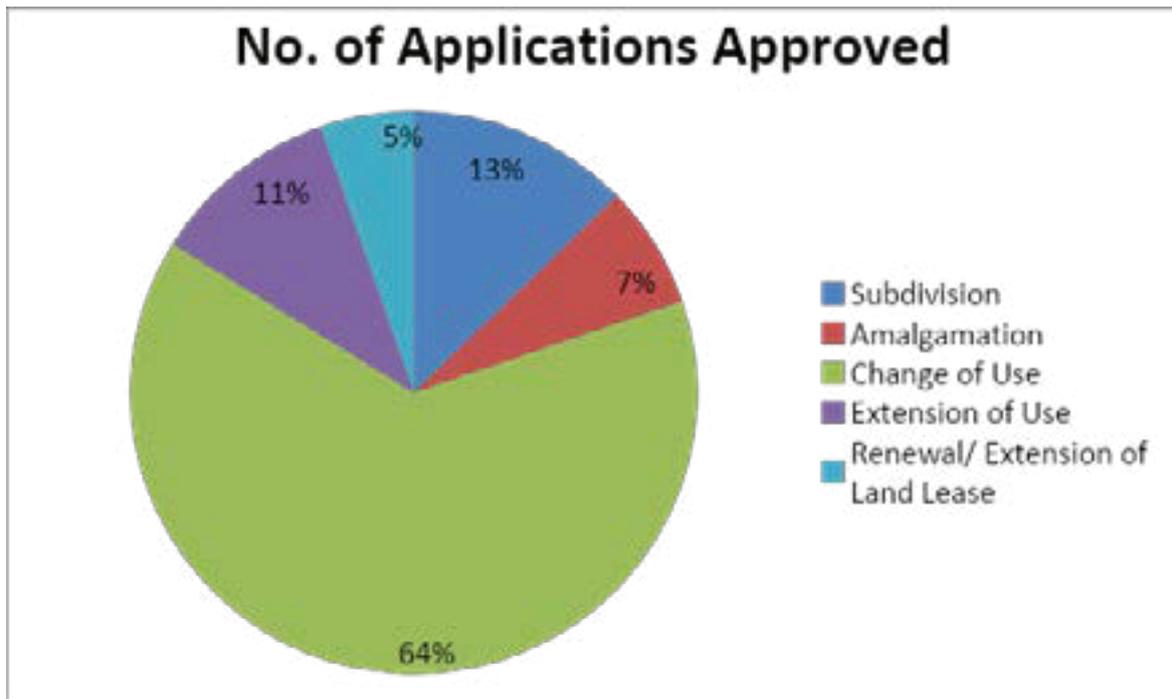
b. Submission fees



Development Applications Approved from 01 January to 04 August 2022

Application	No .of Application Approved
Subdivision	121
Amalgamation	67
Change of Use	611
Extension of Use	103
Renewal /Extension of Land Lease	51
Total	953

Change of use applications were the highest number of approvals in this period totalling to 611 applications followed by Subdivision applications at 121 and the lowest applications approved were the Renewal/ Extension of Land Lease at 51 approvals.



12 A Look at the Jubilee Administration: The Big Four Agenda

In 2013 as we ushered in a new regime under the Jubilee Administration, H.E. the former president Uhuru Kenyatta at his swearing in ceremony promised economic transformation, national unity, free maternal care and improved educational standards. The Jubilee coalition was then composed of The National Alliance, The United Republican Party, the National Rainbow Coalition and the Republican Congress Party of Kenya and their manifesto, was a document built on three pillars; Umoja, Uchumi and Uwazi.

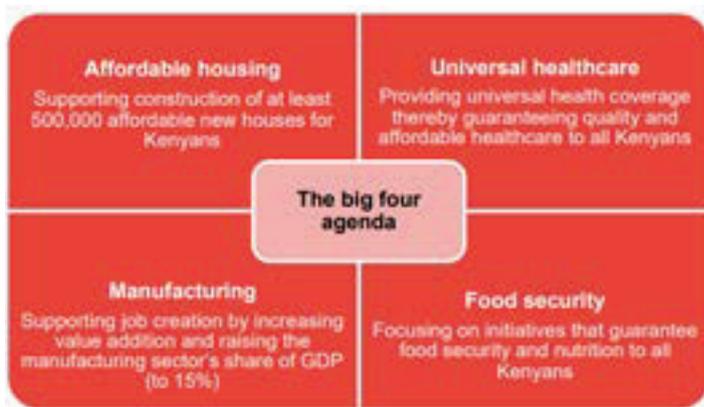
President Uhuru's government laid out important plans they were keen on implementing such as keeping Kenya safe and secure from terrorists; making the country a strong trading partner in Africa; securing Kenya's legacy as a sporting nation and celebrating its culture; building a healthier Kenya; empowering youth and women; increasing social protections; building an enterprise economy; promoting tourism; securing Kenya's energy supply; enhancing agriculture and food security; protecting Kenya's environment; providing decent housing for all; creating a world-class transport

and infrastructure system; improving governance and securing devolution².

However, these were ambitious strategies that did not achieve their targets. In this article, we will focus on the 4 areas under the Big Four Agenda: Affordable Housing, Health Care, Infrastructure and Food Security. The big four sectors are prioritized in the Third Medium Term Plan (MTP III) of the Kenya Vision 2030, the African Union Agenda 2063 and the Sustainable Development Goals (SDGs). According to the Amnesty International Kenya Human Rights Jubilee Scorecard report, various policy legislative and institutional measures were under-resourced, minimized or did not prioritize the public right to information and participation.

According to the Amnesty International Human Rights Jubilee Scorecard 2022³, rampant corruption, wasteful public finance expenditure, and excessive borrowing crowded out valuable resources for essential services and the implementation of the Bill of Rights. A human rights-based budget analysis of the last five years demonstrates low social sector spending. In this regard, social protection, health, education, and water and sanitation averaged only 11% of the total budget, and a meager 3% of GDP for the period 2018-2021. With increased debt servicing costs already crowding out 38% of the total budget and 63% of the total domestic revenues, these low investments in the social sector make the realization of economic, social and cultural rights impossible to attain.

Kenya currently has a poor ranking of 53 out of 120 countries in the global



2 <https://www.kenyans.co.ke/news/47967-uhurus-scorecard-jubilee-performance-evaluation-7-years-part-1-holiday>
 3 [file:///C:/Users/ombew/Downloads/Human%20Rights%20Jubilee%20Scorecard%20Full%20Report%20\(1\).pdf](file:///C:/Users/ombew/Downloads/Human%20Rights%20Jubilee%20Scorecard%20Full%20Report%20(1).pdf)

International Budget Partnership Kenya Annual Survey. The survey assesses the quality of public participation, budget transparency and oversight.

1. Affordable Housing

In 2017, the Jubilee Government embarked on the Affordable Housing project, an ambitious project under the Big Four Agenda that aimed to produce 500,000 homes between December 2017 and June 2022. However, the target was far from being achieved by the end of the 10-year tenure. The government was to spend KES 127 billion to finance building houses, roads, and water and provide access to cheap credit.

According to the 2022 State of Housing Report by the Economic and Social Rights Center-Haki Jamii, only a total of 13,529 units have been developed with minimal delivery in the social housing category. The affordability of these houses for displaced persons who failed to qualify for mortgages has never been resolved whereby the terms of payment for the housing exclude the target group. This is due to the high down payment of 12.5% and period of payment of balances from 90 days to 3 years. It is also noteworthy that the Covid-19 pandemic greatly derailed the project as more resources were transferred to the health sector.

2. Manufacturing

A report by the Budget and Appropriation Committee (BAC) observed that though there have been a lot of progress in the implementation of the Big Four Agenda, significant gaps are still evident. The Gross Domestic Product (GDP) ratio to 15% is yet to be achieved and is at 7.4% which is less than what it was in 2018 at 9.2%.

According to the Competitive Industrial Performance (CIP) Index Report, 2020 Kenya has ranked position 115 out of 152. The Report benchmarks the ability of countries to produce and export manufactured goods competitively. It provides a yardstick against which Kenya can compare its manufacturing competitiveness on a global level. Competitiveness of the manufacturing industry is regarded as one of the basic determinants of long-run sustainable growth of a country. The ranking shows that product competitiveness has to be looked into to achieve higher export.

3. Health Care

The Jubilee administration performed better in the right to health. The ten years of the Jubilee administration saw an increase in improved facilities across the country, especially in Nairobi. Catalysed by the existential threat posed by the Covid-19 pandemic, the increased access to medical facilities and vaccines undoubtedly saved many lives in the second term of the administration. Corruption and public finance mismanagement, which was endemic in the first term, resurfaced in the Kenya Medical Supplies Authority (KEMSA) scandal during the pandemic.³

4. Food Security

In 2013, the Jubilee coalition through their manifesto promised to put food and clean water on every Kenyan table⁴. Fast forward to 2017, the Big Four Agenda, and in line with the MTP3 strategies announced to encourage large-scale farming and boost small-holder productivity, the jubilee administration committed to improving small-scale farmers' access to inputs, facilitating large-scale cultivation on more high-potential agricultural land, and improving the productivity. It is also committed to boosting profitability for large-scale producers, improving extension services and investing in research and digitization.

However, the BAC observes that currently, there is a food crisis in some parts of the country with over 2 million Kenyans facing starvation in more than 20 counties. In November 2021, some 7.9 million people (15.4% of the total human population) experienced food insecurity due to failed rains, low agricultural production, and high food prices.⁵

Notably, the Jubilee government has had successes in agricultural policy reforms as there were implemented policies and programs that support sustainable agriculture. In spite of that, they failed to effectively address unequal and inefficient food distribution and food wastage calculated at 40%, caused by a lack of storage facilities and poor infrastructure for accessing markets.

3 [file:///C:/Users/ombew/Downloads/Human%20Rights%20Jubilee%20Scorecard%20Full%20Report%20\(1\)%20\(1\).pdf](file:///C:/Users/ombew/Downloads/Human%20Rights%20Jubilee%20Scorecard%20Full%20Report%20(1)%20(1).pdf)

4 <https://s3-eu-west-1.amazonaws.com/s3.sourceafrica.net/documents/119133/Jubilee-Manifesto-2013.pdf>

5 <https://www.statista.com/statistics/1236146/number-of-people-facing-food-insecurity-in-kenya/#statisticContainer>

13

The Kenya We Want Campaign: Kenyans at the Center

‘Sustainable guidelines for policymakers in the new government’

The built environment depends on policies for it to function well. Policymaking can be seen as a pedal of action and transformation. It would allow built environment professionals to address issues within the field, encourage high-quality architecture, and sustainable development of the environment and celebrate cultural and heritage conservation, allowing the professionals to maintain the status it essentially holds, with the help of research, discourse, model and experimentation.

The Kenya We Want Campaign happens every election year hosted by the AAK. It outlines key areas in which the incoming government should concentrate its efforts. To give policymakers more detailed recommendations, we’ve created sustainable guidelines that government

ministries may use to evaluate and rank stimulus proposals. This guides policymakers transitioning from one government to the next, a sustainable development framework that calls for updating current approaches based on past lessons learned and ensuring that institutional mechanisms are “fit for purpose” for the implementation of policies to achieve our long-term goals like the Vision 2030 and The SDGs.

Kenya’s lack of adequate building and land use control has increased disaster and chronic risks in the built environment. The country is at a crossroads in many areas. The current regulatory decisions will have a substantial impact on the urban built environment’s long-term safety, productivity, and resilience. To implement the good urban governance agenda the checklist provides action-oriented recommendations around five main categories that emerged as key pillars for a territorial approach to the agenda;



Climate Justice

- The March 2022 Global Climate Report reveals that the last 7 years have been the warmest ever recorded, with the sea level rise accelerated to a new high from 2013 to 2021
- We need to begin to take steps now to avert the effects of Global warming.
- Kenya must remain committed to the Paris agreement through the implementation of the National Adaptation Plan 2015- 2030
- The incoming government should aim at and adopt strategies for zero-net emissions by 2050, remaining committed to maintaining an ambitious carbon price
- The incoming government should

advocate for adopting green building solutions in all upcoming developments.

- The Safari Green Building Index tool developed by AAK can be used as a rating tool to assess the qualification for incentives for those who adopt green buildings in their developments.

Sustainable Urban Growth

- With Kenya's fast urbanisation, the government should ensure that urban areas are established according to the provisions of the Urban Areas and Cities Act (2011).
- PLUPA Act 2019 requires the government to prepare physical and land use plans at the national and county levels.
- The National Building Code prescribes that building design, construction and inspection must be undertaken by qualified professionals.
- In 2018, a survey by National Construction Authority found that 10,791 of 14,895 buildings across the country are unsafe and need to be demolished and reinforced before occupation
- Since 2015, more than 90 buildings have collapsed leading to the loss of lives and property
- We applaud the outgoing government for the significant effort to revise the existing building regulations
- The incoming government should progress efforts by adopting well-designed and locally specific building regulations central to addressing construction challenges and enforcing them transparently.
- We want a Kenya that is rid of rogue developers and quack players who that act in contravention of the requisite building regulations

Improved Business Environment

- In 2019, the World Bank ranked Kenya at 56 among 190 economies in the ease of doing business, an improvement from 61 in 2018
- However, according to KNBS, over 1.4 trillion was used on road construction between 2013 and 2021, while contracts of over 1 trillion were awarded to foreign contractors
- The government needs to create a conducive business environment for locals.
- Specifically, local content propels industrial development, job creation, skill transfer, value addition, linkage creation, and better value chain incorporation.

- The incoming government must adhere to the Public Procurement and Asset Disposal Act No 3 of 2015 and ensure 40% of local personnel and suppliers are incorporated in foreign awarded tenders
- We implore that sustainable promotion of local content is a priority for the incoming administration.
- The government should also create a conducive business environment for locals and foreign investors by streamlining the process of acquiring licenses and ensuring systems are favorable for different businesses.

Sustainable Infrastructure Development

- Sustainable infrastructure, a key pillar of Vision 2030 propels sound economic development and is vital in influencing businesses and MSMEs' competitiveness.
- According to ITDP (2021), 41% of Nairobi residents use public transport to travel while 40% walk, 13% use cars, and 5% use motorcycles. Road designs should be reflective of these demographics.
- Regrettably, many road projects implemented in the country are not inclusive, nor people-friendly.
- In 2021, NTSA reported that 38% of road accident fatalities were motorcyclists, 35% were pedestrians, 17% were passengers and 10% were drivers.
- We urge that investment in infrastructure provision should be people-centred by catering to everyone's needs, not only cars but also non-motorized transport users, and have provisions for persons with disabilities.
- It should deploy modern solutions for mass transit and transform sidewalks into friendly walking and cycling spaces that foster dignity and encourage people to use these sustainable modes.
- We implore the incoming government to ensure optimum budgetary and resource allocation for sustainable infrastructure projects.

Reformed Urban Governance

- Civic engagement and citizenship: We implore the incoming administration to adopt a more inclusive and integrated approach by recognizing all the actors



- Equity & equality: There needs to be equality and equity in opportunities to participate and leverage the benefits of urban living & reduce the poverty gap
 - Sustainability: we urge the government to reconcile social, economic, and environmental interests to benefit the common good.
 - Adequate Institutional and Technical capacity: Each government entity should have sufficient resources, skills, and capacity to ensure that the planning processes are legally enforced, well-coordinated, inclusive and cross-sectoral
 - Use of ICT: we laud the outgoing government for implementing ArdhiSasa and e-permitting systems in various counties.
 - The incoming governments should ensure that the remaining counties adopt the technology and work towards a standard electronic system for all counties.
- TWITTER SPACES ON THE KENYA WE WANT

The campaign also provides a platform for citizens and professionals in the sector to voice their concerns and priorities for the country's development. Through this, we managed to hold several Twitter spaces last year focusing on several thematic areas of the campaign. These included:

1. The Kenya We Want Campaign
2. Let's Talk about Affordable Housing in Kenya

3. Inclusive Urban Mobility: Less Highways, More Walkways

4. Envisioning Nairobi Streets of Future

Through the campaign, AAK also sent out congratulatory letters while attaching a matrix of challenges and possible solutions faced by the all counties to the various newly elected governors requesting for a meeting. This far, the association has managed to meet with the Vihiga governor, H.E. Dr. Wilber K. Ottichilo. The association also wrote letters to the newly appointed Cabinet Secretaries, Principal Secretaries, and members of the Lands, Housing and Urban Development Committee.

Kenya, an emerging middle-income economy, and sustainable urban development contributes to the realization of Vision 2030. In addition, it is essential to accomplishing the Global Sustainable Development Goals and the New Urban Agenda. Policymakers, planners, and other professionals must be committed to delivering an effective planning process, as well as continued involvement with stakeholders. Policy is one of the most essential tools for addressing the benefits and challenges of modern urbanization. If policymakers recognize its importance, Kenya has a good chance of attaining social, economic, and environmental progress. Participate in the dialogue and express your thoughts on the topic via AAK, as this is a continuing discussion throughout this election year.

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