



AAK | PROMOTING EXCELLENCE
IN THE BUILT ENVIRONMENT

Twitter Spaces Rapporteur Report: High-Rise, Low-Income Housing, held on 09/02/2023

Rapporteur- Cynthia Nthenya Musyoka

The session was live for 2 hours 13 minutes and had a total of over 3,000 people tuned in; 316 live listeners and 2700+ replays

The Twitter space conversation was called to order by Oloo Adhiambo, AAK Advocacy Officer who invited listeners and introduced the session Moderator. The space was done in 2 sessions; a panel discussion and a session with contribution from discussants.

This panel and discussants' session was moderated by Arch. George Arabbu, Architects chapter chair, AAK. The panelists for the session were:

- a. Arch. Florence Nyole- Vice President, AAK
- b. Patrick Njoroge- Programmes Coordinator, Akiba Mashinani Trust
- c. Pln. Dr. James Maina- Planner, State Department of Housing; Lead, IPDU
- d. Peter Mayavi- Managing Director, Capital and Investor Relations- Kenya; International Housing Solutions
- e. Pln. Cyrus Mbisi- Chair, Town Planners Chapter, AAK

Discussants, for the Session were:

- a. Mr. David Ondieki- Manager, Air Navigation Services- Meteorology and Aerodromes Regulation, Kenya Civil Aviation Authority
- b. Gikonyo Gitonga- Chief Executive Officer, AXIS Real Estate Limited

Arch George Arabbu introduced the plenary discussion by giving a brief background as to why the twitter spaces session was being conducted.

Recently, H.E Dr. William Ruto, President of Kenya, made a directive that the Shauri Moyo affordable Housing Project be revised and changed to a 25-floor storey building. High-rise buildings have become the new norm in the real estate space with most areas of our cities such as Lavington, Kilimani, Eastlands- along Jogoo Road, Embakasi, Pipeline among others having adopted construction of these high-rise buildings.

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Arch. Arabbu indicated that the session sought to answer questions like; whether high-rise buildings were the way to go? and how well do we respond to the current situation?

The discussion is as summarized below:

Arch. Florence Nyole- Where and when did High-Rise building typologies come from in Kenyan context, particularly in Nairobi

Arch Florence highlighted that:

- Nairobi has been the green city under the sun and many people associate it with its skyline with the up-turned heart top being the KICC
- Going back in history in regards to high-rise buildings;
 - 1969- Hilton came up with a 20-storey building
 - 1973- NSSF building
 - 1974- KICC; 30+ storey building and helipad
- At this time, high-rise buildings, whether commercial or residential started to define the city's skyline
- 1960-1980- Nairobi experienced high rates of expansion of skyscrapers and high-rise constructions along university way, Uhuru Highway and Haile-Selassie Highway. Most Architects at this time had come from Europe and were introducing "modern concepts" into the Kenyan construction space
- Toward 1990, there was a slowdown of developments due to economic factors and political suppression
- In the 21st Century- re-birth of property development was seen in the city, which created global attention.
- In 2012, there was an upsurge in property development as people sought to create wealth that was promoted by the new 2002 power regime; which promoted economic growth in the country. At this point, there were more investments in different sectors including real estate.
- Then, Nairobi city was ranked one of the most growing real estate markets. However, real estate prices started to rise, with hiked land value where it was ranked top 10 globally by JLL.
- Contributing factors included: Local government (NCC) drove global business interests Strategic economic and geographical positioning of the city which led to demand of housing retailers making Nairobi a hub in East Africa and Africa at large

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- For people to develop high-rise buildings, there has to be demand for it. Nairobi Urban population is on the rise which has led to more demand of housing and commercial spaces
- Institutional investors are also playing a key role in high-rise investments e.g., GTC through maximization of investor return in comparison to land prices
- Development Control policy in Nairobi does not allow current situation
- Nairobi real estate sector is also influenced by influx of neighboring communities e.g., Eastleigh, South B and South C
- Amenities need to be sufficient to support such high-rise developments in the city- which is a huge gap as per the current situation in Nairobi

Planner James Maina- What were the considerations taken in regards to the president's directive on the Shauri Moyo project? Will the plans for the project be revised? Moving forward, will Shauri Moyo area become a densified zone with private investors being allowed to do similar projects in the area?

Planner James Maina highlighted that:

- The government targets to provide 250,000 housing units annually. The private sector provides 50,000 units annually leaving a subsidy of 200,000 units that the government seeks to achieve through initiatives such as working with the private sector and providing low-income housing through the affordable housing project.
- The directive of the government comes at the right time, to support already existing projects. Initially, in 2002, there were requests for developers to be allowed to construct such developments.
- Contributing factors for high-rise developments include: high prices of land, growth of the economy, need for improved lifestyle by Kenyans, rise of middle-class population, demand for better housing with good aesthetic finishes, more financial institutions supporting developers, better structuring of projects
- Commercial spaces have also faced a change in demand. Initially, traditional offices were done especially in the CBD with minimal to no infrastructure such as parking, provided. However, due to expansion of businesses and infiltration of international enterprises in the city, led to the demand of better spaces with adequate infrastructural provision.

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- Such demand of both residential and commercial housing has led to the alteration and change of development control guidelines in Nairobi. Currently higher densities are been allowed for former zone 3, 4 and 5 which were initially categorized for low densities
- Current projects, including the Shauri Moyo AHP, are looking at Urban Renewal of Spaces. Most of the old residential estates were either owned by government agencies such as local governments need to be revamped
- These estates sit in areas connected to almost all infrastructural facilities such as water, sewer, road network and are in close proximity to employment places- factors which have contributed to the need for high density high-rise buildings.

Housing is not just about the building. There are other infrastructural services that should be put in place in residential neighborhoods. In this regard, are there sufficient infrastructure services put in place to support high-rise developments? Are there existing plans to guide such developments?

Gikonyo Gitonga highlighted the following;

- Residential housing and its densification are a complex phenomenon that need a holistic approach with many factors put into consideration, i.e., water, sewer, solid waste disposal and management, increased traffic count by the high-rise buildings (both foot and vehicular traffic).
- A typical household in Kenya has 4-5 people. Construction of 3,00 units (approximately 15,000 people) should put into consideration the implications of such an increase in population on existing facilities and how best to provide for infrastructural facilities in these areas.
- Some of the challenges that come with high-rise buildings include:
 - Managing and monitoring of facilities- power (lifts and generators), water, security (CCTV)
 - Increased population leads to more demand for facilities and services which ultimately results in increased service charges.
 - Enforcement of service charges. Some areas like Kilimani have default rates at 30%-40%
 - There might be need for the owners to be included in Residential Associations, especially if the housing units will be registered under sectional properties
- Looking at solutions to low-income housing needs, there is a critical need for supporting effective and sustainable public transport.

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- Going high-rise is a good solution, however, it has not been well thought out for effective implementation especially for low-income earners.

In response to the above question, **Planner Cyrus Mbisi** indicated the following:

- Currently, we (Nairobi City) do not have adequate and sufficient infrastructure to support high-rise low-income developments.
- Current sewer coverage in Nairobi stands at slightly below 30%. Additionally, we lack a proper solid waste management system; from the households to the final processing sites. This has been contributed by the failure to secure proper landfill sites.
- To deliver a working city/urban system that is helpful to everyone, there is need for looking at the current/ available framework and approaches used to deliver solutions at city scale
- Currently, Nairobi is facing a chronic infrastructure provision back-log that is critically affecting provision of housing for the existing population
- The NIUPLAN;
 - Seeks to sort out systems at city scale
 - Calls for preparation of detailed plans at district level. However, there has been no follow up on the district level planning done so far, which aimed to implement sub-center systems for effective urban functionality.
 - Seeks to ensure a 'jig-saw fit' system of development to avoid isolated developments in the city

Planner James Maina contributed to the discussion by highlighting the following:

- Infrastructural challenges have been foreseen and put into account in the NIUPLAN and implementation is underway.
- For public transport, the government came up with NAMATA- an organization that was mandated with the implementation of a mass rapid transport system in Nairobi. In 2014, a study conducted came up with 5 BRT lanes passing through highly populated areas, including areas where affordable housing projects are being constructed. From the 5 lanes, two are in their implementation stages, however have stalled due to cash flow challenges.
- Water supply and provision has been greatly affected by climate change. However, the government has been involved in some projects to counter the situation for example, construction of the Northern Tunnel and improvement of water dams.
- Perennial problems of water supply do not disqualify the need for high-rise developments.

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- It is noteworthy that there is likely to be a high property management fee subjected to these developments in comparison to the current charges.
- High service charges in informal settlements especially on water and electricity are mainly due to illegal connections done- secondary sale
- There will be a need to look at management of high-rise developments in low-income areas.

Patrick Njoroge- Potential Social-economic Impacts of high-rise buildings on low-income communities

Patrick Njoroge highlighted the following:

- Informal settlements require social housing, not affordable housing
- The sustainability of these projects is directly tied to provision of units that are easy to maintain and those that easily address housing challenges
- The directive by H.E president William Ruto may not be feasible as it comes with challenges of maintenance
- Individual income cannot change overnight; hence this affects the feasibility of the project since individuals will have to pay for mortgage and service charges
- High-rise buildings offer an opportunity to counter the challenge of cost of land but if not carefully implemented, they may lead to more harm.
- Some solutions to these challenges include:
 - Construction of walkable housing that is, ground plus 4 floors that will significantly reduce maintenance costs
 - Have social housing for low-income people rather than affordable housing projects
 - There is need for citizen participation before implementation of such projects

David Ondieki- What is the maximum allowable heights of buildings? Are there situations where flight paths are adjusted to accommodate taller buildings?

David Ondieki elaborated the mandate of KCAA in building regulation as summarized below

- Kenya Civil Aviation Authority (KCAA) is a state corporation under the Ministry of Roads and Transport that is mandated to manage and promote safe civil aviation systems in the country through adoption and integration of internationally agreed standards and recommended practices developed by International Civil Aviation Authority.

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- Control of structures is a key function undertaken by KCAA. Developments done around airports should be maintained from obstacles for safe operations of aircrafts
- Regulations governing control of developments include:
 - Sec 57 of Civil Aviation Act, 2013
 - Part 8 of Civil Aviation and Aerodrome Act
- Maximum building heights in flight paths depend on proximity to specific airports. Airports differ in different elements such as the elevation of the landing area. Elevations determine height of obstacles within take-off areas and flight paths.
- Therefore, it is important and a requirement for developers to seek approval from KCAA while constructing high-rise buildings. This is especially applicable for areas in close proximity to the airport- recommended radius of 5km.
- It also important while doing a development, to take cognizance of airspace restrictions for example in Nairobi- military air spaces
- Adjustment of a flight path is nearly impossible. The International Civil Aviation has a declaration that; from the end of a runway there should be a provision of a 15° splay on either side, which creates a funnel that should be protected in regards to the operations of an aircraft.

Peter Mayavi- Ideas and examples we can learn from while considering high-rise developments in Kenya

Highlights from Peter Mayavi's discussion were:

- IHS is a private equity fund that invests in sustainable, green affordable housing by raising capital from institutional investors.
- High-rise developments cannot be done without reference to what has been previously done, particularly in Asia Singapore, Malaysia, India and China
- Asia is well known for high-rise developments which are done as a response to high population growth, limited land resource and demand for housing
- Nairobi should adopt high-rise developments
- In South Africa, most high-rise developments done are walk-ups with not more than three storey floors
- In Kenya, the cost of land and limited land resources have contributed to development of high-rise buildings of up to 12- 15 floors.

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- Despite concerns of inadequate infrastructure, developers cannot wait for the government to catch up with provision of services. Kenyan structure of addressing challenges is more of a reactive system- tries to find solutions to problems rather than creating and expanding of opportunities
- Issues of property management should be critically looked at while coming up with high-rise developments
- In Singapore, property management is taken seriously. Infrastructural development in the country is also adequately done. Kenya should aim to achieve such standards in order to have functional high-rise developments.

Final remarks:

Patrick Njoroge- The government should separate social housing and affordable housing. Social housing should target low-income and informal settlements communities with developments of ground plus 4 storey walkable buildings. On the other hand, affordable housing targets the middle-income earners and can be allowed to have several floors since in this category, people can afford maintenance charges.

Peter Mayavi- As Kenyans, we do not appreciate the importance of green spaces- a critical element missing in most developments. High-rise developments should be done in a way that at ground level, there is provision of adequate green social spaces while having the livable space done on the upper levels.

Arch. Florence Nyole- There is a need for formalization of government projects and their implementation. Many projects in our urban areas are done informally. H.E William Ruto's directive ought to have followed a formal policy, code or plan which would have provided for effective decision making in regards to the Shauri Moyo affordable housing project

Gikonyo Gitonga- There is a need to emphasize on holistic planning and adequate infrastructural service provision for high-rise developments. The government should be able to provide such services for existing and upcoming developments. More developments with limited infrastructure will lead to more challenges rather than solutions.

David Ondieki- For areas surrounding the airport, professionals in the built environment should take cognizance of set regulations and advise developers accordingly.

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James Maina- The affordable housing projects are not competitors in the market, rather they seek to address housing shortage in the country. Additionally, the AHP has components of social housing to cater for the low-income class, with the government taking particular interest in funding such projects.

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