Affordable Housing in Kenya

Investment cases for developers building affordable homes in Nairobi

Industry Report

June 26, 2018
About the Report

This report describes the affordable housing real estate sector in Nairobi. It examines the sector growth dynamics, trends, prices, development strategies, and finally presents two viable investment cases for private developers.

The team conducted extensive desk research, collected primary data, consulted experts on the task force, and reviewed findings and assumptions with over 30 industry practitioners in the report’s development.

Report Authors

KPDA Affordable Housing Task Force

Technical Input

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Affordable Housing Task Force

Urban population growth of 4.2%, equivalent to 0.5 million new city dwellers every year and 61% of urban households living in slums. This deficit continues to rise due to fundamental constraints on both the demand and supply side and is exacerbated by an urbanization rate of 4.2%, equivalent to 0.5 million new city dwellers every year.

With this level of growth, Kenya requires approximately 200,000 new housing units annually to meet demand, yet only 50,000 homes are built, leaving the housing deficit growing by 150,000 units per year. As a result of this mismatched supply and demand, housing prices have increased by 100% since 2004.

### Growth Dynamics

#### Kenya’s Urban Population

- Urban population growth of 4.2%, equivalent to 0.5 million new city dwellers every year and 61% of urban households living in slums.

#### Kenya Housing Demand vs Supply

<table>
<thead>
<tr>
<th>Estimated housing requirement</th>
<th>2 million units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Estimated annual supply</td>
<td>50,000 units</td>
</tr>
<tr>
<td>Estimated annual demand</td>
<td>200,000 units</td>
</tr>
<tr>
<td>Estimated annual shortfall</td>
<td>150,000 units</td>
</tr>
</tbody>
</table>

The Affordable Housing sector experiences several challenges that has reduced the supply of housing and buyer uptake of units.

### Urban Planning

**Detailed urban development plans & infrastructure services**: Few urban centres have implementable urban development plans and a large number of land parcels are unserviced, forcing developers to incur an additional infrastructure cost when constructing. Average land and infrastructure cost in Kenya makes up 10% to 35% of the total cost of development.

### Cost of Construction

**Low supply of quality affordable units**: The sector has historically developed high priced units targeted at the upper income segment of the market, given the high cost of construction. According to recent research, Kenya has one of the highest cost of construction in Africa.

### Construction Finance

**Adverse construction finance terms**: Construction finance loans are challenging for developers to obtain, particularly since the interest rate cap and the bank’s investment in government securities. Developers incur high financing costs during the period and consequently price this cost in when selling property.

### Mortgage Finance

**Unaffordable and inaccessible mortgages**: Mortgages are difficult to obtain for the average Kenyan household, given mortgages are short term in duration, making them expensive, and that they require formal employment. In addition, the process to obtain a mortgage can take significant time and funds are not release until the titling process is complete.

### Inefficient processes

**Inefficient Titling Process**: According to the 2017 Doing Business Survey, Kenya has a ranking of 121 out of 190 with respect to property registration. It takes 9 procedures and an average of 61 days to register property in Kenya. The registration process is further complicated by devolution with different counties showing different levels of efficiency.

### Incidental costs

**High incidental costs**: There are hidden cost in real estate development, including an additional 6% needs to be added to the unit cost for incidentals, including stamp duty, legal fees and valuation fees, or facilitation fees.

**Source**: iJenga Research, CBK, World Bank, CAHF
Changing macro economic, government and real estate sector dynamics will result in a greater focus on affordable housing in Kenya

**Public Sector**
- Construction of the pre-fabricated housing factory in Mavoko
- Slum upgrading project in Kibera
- Building of affordable houses through NHC
- Tax incentives to developers

**Private Sector**
- Densification of key neighborhoods and sprawl of city
- Focus by private developers on the upper income segments
- Rapid increase in the price of land

**Past**

**Current Dynamics**
- Over supply of high-end housing
- Focus on housing for the next 5 years under the government’s Big Four Agenda
- The young, raising middle class has greater disposable income for home ownership

**Future**

**Public Sector**
- Development of county spatial plans and urban masterplans
- Proposed incentives on stamp duty, tax rebates and infrastructure
- Joint venture & PPPs on public land
- Formation of a housing fund
- Implementation of a mortgage refinance company

**Private Sector**
- Real estate development in secondary and tertiary cities
- New building and unit design and incremental home purchase strategies
- Increased innovation in housing finance products through banks, SACCOs, and rent-to-buy schemes
Low income households, the majority of Nairobi households, can afford units below KES 4m, while middle income households can afford units above KES 4m.

### Economics of Home Ownership in Nairobi

<table>
<thead>
<tr>
<th>Focus of report</th>
<th>Avg Household Monthly Income</th>
<th>Monthly Mortgage Payment</th>
<th>Avg Unit Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>Upper Income</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2m</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>350k</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Middle Income</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>350k</td>
<td>180k</td>
<td>270k</td>
<td>90k</td>
</tr>
<tr>
<td>80k</td>
<td>120k</td>
<td>180k</td>
<td>60k</td>
</tr>
<tr>
<td>Low Income</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>80k</td>
<td>80k</td>
<td>120k</td>
<td>40k</td>
</tr>
<tr>
<td>40k</td>
<td>40k</td>
<td>60k</td>
<td>20k</td>
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<tr>
<td>20k</td>
<td>20k</td>
<td>30k</td>
<td>10k</td>
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<tr>
<td>Social Housing</td>
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<tr>
<td>7k</td>
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<td></td>
<td></td>
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<tr>
<td>0k</td>
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<td></td>
<td></td>
</tr>
</tbody>
</table>

**Notes:** Assumes household size of 1.5 people, 15 year mortgage, 14% interest rate and 20% down payment.
The average sale price for a 2 bed and 3 bed across varies by neighborhood, building quality, size and unit finishes.

Current Price & Future Price Projections per Square Meter

Currency in KES per square meter

Assumptions

- Over 70 market price data points analysed, approximately **5 data points for each unit type in each target market** neighbourhoods.
- **Mid market** areas include Ridgeways, South B & C, Pangani and Langata.
- **Low market** locations include Dagoretti, Imara Daima, Kinoo, Syokimau, Ruaka and Rongai.
Reducing unit sizes can reduce the per unit price, while maintaining developer margins

**Future Unit Sizes Options**

*Areas in square meter*

<table>
<thead>
<tr>
<th>2 Bed Unit Sizes</th>
<th>Size Options</th>
</tr>
</thead>
<tbody>
<tr>
<td>Current Sizes</td>
<td>Mid Market: 98</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>Mid Market</td>
<td>Mid Market: 60</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>3 Bed Unit Sizes</th>
<th>Size Options</th>
</tr>
</thead>
<tbody>
<tr>
<td>Current Sizes</td>
<td>Mid Market: 129</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>Mid Market</td>
<td>Mid Market: 80</td>
</tr>
</tbody>
</table>

**Observations**
- Building smaller units helps reduce unit cost while maintaining per square meter margins.
- Project viability is increased by varying the unit mix depending on the market dynamics.

**Unit Prices**

*Unit value in KES millions & areas in square meter*

<table>
<thead>
<tr>
<th>Option</th>
<th>Unit price</th>
<th>Unit size</th>
<th>Market rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mid market option</td>
<td>2.6 M</td>
<td>40 SM</td>
<td>65 K</td>
</tr>
<tr>
<td>Low market option</td>
<td>3.9 M</td>
<td>60 SM</td>
<td>80 K</td>
</tr>
</tbody>
</table>

**Unit Prices**

<table>
<thead>
<tr>
<th>Option</th>
<th>Unit price</th>
<th>Unit size</th>
<th>Market rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mid market option</td>
<td>4.8 M</td>
<td>60 SM</td>
<td>80 K</td>
</tr>
<tr>
<td>Low market option</td>
<td>6.4 M</td>
<td>40 SM</td>
<td>65 K</td>
</tr>
</tbody>
</table>
Developers can create options for buyers by selling units with incremental finishes, reducing the unit cost and giving buyers more options.

**Development Cost Breakdown**

*Figures in KES millions*

**Total Area:** 10,115 SM  
**Cost per SM:** KES 68,256


- **Current finish:** 16.7k per SM  
- **Reduced finishes:** 11.2k per SM  
- **Potential of 33% savings on finishes**
### Land joint ventures can increase a developer’s returns and help land owners monetize their assets

<table>
<thead>
<tr>
<th>Description</th>
<th>Purchase</th>
<th>Land JV with Profit Split</th>
<th>Land JV with Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Developer makes an outright</td>
<td>Developer makes an outright purchase from the</td>
<td>Developer and land owner enter a JV. Land owner receives a proportionate share of the</td>
<td>Developer and land owner enter a JV. Land owner receives units at project end with a</td>
</tr>
<tr>
<td>purchase from the land owner</td>
<td>land owner</td>
<td>profits upon completion</td>
<td>value equals to the agreed land value</td>
</tr>
<tr>
<td>Valuation</td>
<td>Project IRR remains the same. Return on</td>
<td>Project IRR remains the same. Developer earns the highest Return on Equity (ROE)</td>
<td>Project IRR remains the same. Return on Equity (ROE) increases relative to an outright</td>
</tr>
<tr>
<td></td>
<td>Equity (ROE) for the developer is low given</td>
<td></td>
<td>purchase</td>
</tr>
<tr>
<td></td>
<td>high equity draws</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Due diligence</td>
<td>Land due diligence</td>
<td>Land due diligence</td>
<td>Land due diligence</td>
</tr>
<tr>
<td></td>
<td></td>
<td>SPV Company due diligence</td>
<td>SPV Company due diligence</td>
</tr>
<tr>
<td>Legal agreements</td>
<td>Land Sale Agreement Transfer</td>
<td>Land Sale Agreement</td>
<td>Land Sale Agreement</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Share Subscription Agreement</td>
<td>Share Subscription Agreement</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Shareholders Agreement</td>
<td>Shareholders Agreement</td>
</tr>
<tr>
<td>Minority rights</td>
<td>N/A</td>
<td>Board representation</td>
<td>Board representation</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Reserved matters</td>
<td>Reserved matters</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Veto right</td>
<td>Veto right</td>
</tr>
<tr>
<td>Condition Precedents</td>
<td>Completion of Due Diligence</td>
<td>Completion of Due Diligence</td>
<td>Completion of Due Diligence</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Transfer of land to SPV</td>
<td>Transfer of land to SPV</td>
</tr>
<tr>
<td>Risks</td>
<td>Drives up the cash requirements at the beginning of the project</td>
<td>Profit share dilution given the land owners proportionate equity stake</td>
<td>Reduced sales revenue from units given in kind resulting to a lower return on equity for the developer</td>
</tr>
</tbody>
</table>

**Source:** Africa Legal Network
We found two dominant investment cases for the Nairobi mid market – Medium Density and High Density

**Assumptions**

**Pricing**
- Mid market

**Plot size:** 1 Acre

**Location:** Nairobi & environs

**Parking:** 0.7x, sale of parking included

**Av. Unit Price:** Below 3.5m

**Unit Mix**

- Studio: 15 – 30%
- 1 Bedroom: 30 – 35%
- 2 Bedroom: 15 – 30%
- 3 Bedroom: 20 – 30%

**Unit Sizes**

- Studio: 20 SQM
- 1 Bedroom: 30 SQM
- 2 Bedroom: 40 SQM
- 3 Bedroom: 60 SQM

**Medium Density Model**

- Plot ratio: 2.5x
- Ground Coverage: 50%
- Building height: 5 floors
- Parking ratio: 0.7x
- % of parking sold: 75%

- IRR: 17%
- Average # of units: 260
- Average price per unit: KES 2.7m
- Average cost per unit: KES 2.2m
- Average price per SQM: KES 80,380

**High Density Model**

- Plot ratio: 4.0x
- Ground Coverage: 50%
- Building height: 8 floors
- Parking ratio: 0.7x
- % of parking sold: 100%

- IRR: 16%
- Average # of units: 382
- Average price per unit: KES 3.1m
- Average cost per unit: KES 2.6m
- Average price per SQM: KES 81,806

**Note:** Price per unit does not include parking
Developers can peruse some development strategies to reduce the cost of development, while increasing the likelihood of success

1. **Unit Sizing**: Building smaller units can help reduce the price of units, while allowing developers to retain their margins. Reducing unit sizes can increase the per unit cost of a development, given the finishes and internal walls required.

2. **Incremental Housing**: The affordability of housing may also be increased by making use of basic materials with the provision that home owners can make improvements on the house over time through an incremental housing model.

3. **Land JVs**: Land is a big upfront expense. Land JVs can help reduce the cost of land, but also reduce the speculation of land prices. Clear objectives and assumptions should be agreed at the outset and codified into robust legal agreements.

4. **Parking Ratios**: Buildings with smaller unit sizes and more units may need to provide a smaller parking ratio per unit than buildings with larger units. Developers need to either selling parking or limiting the number of parking available by building along public transport routes.

5. **Sales & Cash Flow**: Managing a developers cashflow is paramount. It’s important to have a robust financial model at the outset of a development and to monitor expenditures against the budget. Timely collection of cash is imperative for a developer to manage his interest expense.