

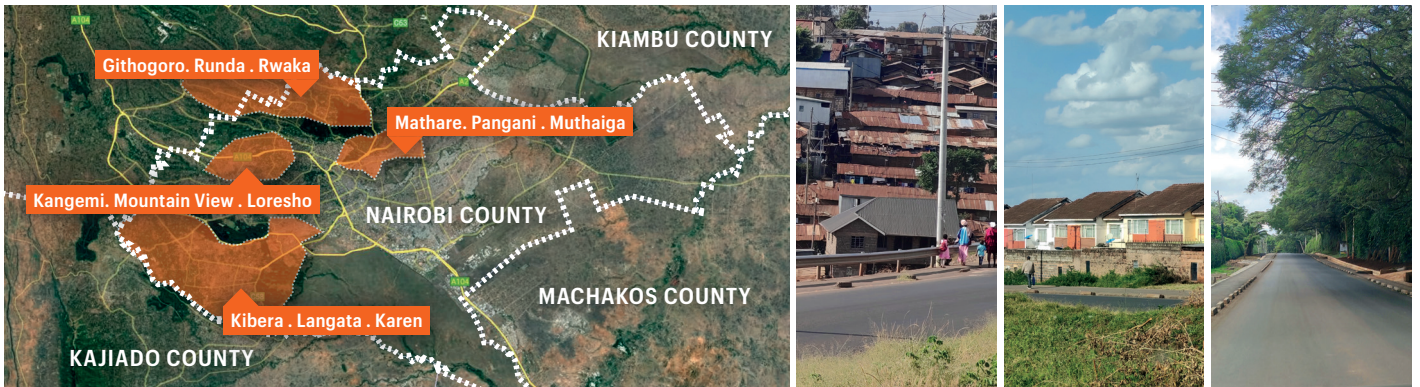
POLICY BRIEF

URBAN RENTAL HOUSING:

# The Missing Lever for Climate Action in Kenya

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Photos from left to right: Kibera, Langata, Karen

KEY FINDINGS

- Nairobi is a “City of Renters”. 91% of households in Nairobi are renters, making rental housing central to climate resilience.
- This study introduces a four-layer classification taxonomy and presents the **first city-wide empirical mapping of 20 rental housing typologies**, including two dominant typologies (informal row houses and formal high-rise flats). It reveals the significant diversity of informal housing and underscores the need for a more granular and targeted approach to climate action.
- **Formal and informal typologies<sup>1</sup> cut across high-, middle- and low-income neighbourhoods.** Informal typologies exist in perceived affluent neighbourhoods (e.g. Karen). Formal high-rise buildings exist in informal settlements (e.g. Kibera). This challenges the assumption that climate vulnerability aligns neatly with informality or income-based classifications.
- **Infrastructure inequalities and the “triple burden”:** unequal access to energy and water shapes resilience. Unequal tariffs, intermediary provision and insecure access create **structural inequalities**. Residents in informal settlements experience “triple burden”: poor living conditions, disproportionate housing and service costs (“poverty penalty”), and greater exposure to immediate climate risks.
- The study challenges conventional binaries (e.g. renter vs. owner-occupier; formal vs. informal; public vs. private; rich vs. poor) that underpin existing policy frameworks and fail to capture the **complexity of contemporary urban housing systems**. It also reveals **a dynamic rental ecosystems** and multiple-tenure models. Even in Kibera, 60% of respondents own property elsewhere.

<sup>1</sup> Formal housing refers to geometrically regular layouts within recognised ownership, professional delivery, and statutory approval systems. Informal housing is characterised by limited integration with centralised infrastructure and limited compliance with statutory regulations

## FORMAL AND INFORMAL TYPOLOGIES

|  | NEIGHBOURHOOD CONTEXT | FLOOR PLATE CONFIGURATION | WALL ENVELOPE MATERIALITY | HOUSING FORM            |
|--|-----------------------|---------------------------|---------------------------|-------------------------|
| <b>TYPOLOGY 1</b><br><b>MULTI-UNIT FLOOR;</b><br><b>MASONRY;</b><br><b>SELF-CONTAINED FLAT (FORMAL)</b><br>Primary location:<br>(Karen, Langata, Kibera)         |                       | <br>Multi-unit floor      | <br>Masonry               | <br>Self contained Flat |
| <b>TYPOLOGY 2</b><br><b>MULTI-UNIT FLOOR;</b><br><b>MASONRY; BEDSITTER FLAT (FORMAL)</b><br>Primary location:<br>(Karen, Kibera)                                 |                       | <br>Multi-unit floor      | <br>Masonry               | <br>Bedsitter Flat      |
| <b>TYPOLOGY 3</b><br><b>STAND-ALONE; MASONRY;</b><br><b>MAISONNETTE (FORMAL)</b><br>Primary location:<br>(Karen, Langata)  |                       | <br>Stand-alone unit      | <br>Stone                 | <br>Maisonette          |
| <b>TYPOLOGY 4</b><br><b>LINE-WALL HOUSING;</b><br><b>MASONRY; BEDSITTER FLAT (FORMAL)</b><br>Primary location:<br>(Kibera edges)                                 |                       | <br>Line wall housing     | <br>Masonry               | <br>Bedsitter Flat      |
| <b>TYPOLOGY 5</b><br><b>ROW HOUSING; RAMMED EARTH;</b><br><b>BEDSITTER (INFORMAL)</b><br>Primary location:<br>(Kibera)   |                       | <br>Row housing           | <br>Rammed earth          | <br>Bedsitter           |
| <b>TYPOLOGY 6</b><br><b>ROW HOUSING;</b><br><b>CORRUGATED IRON;</b><br><b>BEDSITTER (INFORMAL)</b><br>Primary location:<br>(Karen, Langata, Kibera)              |                       | <br>Row housing           | <br>Ironsheets            | <br>Bedsitter           |
| <b>TYPOLOGY 7</b><br><b>ROW HOUSING; TIMBER;</b><br><b>BEDSITTER (INFORMAL)</b><br>Primary location:<br>(Kibera)   |                       | <br>Row housing           | <br>Timber                | <br>Bedsitter           |
| <b>TYPOLOGY 8</b><br><b>MTAA U-COURT; RAMMED EARTH;</b><br><b>BEDSITTER (INFORMAL)</b><br>Primary location:<br>(Kibera)  |                       | <br>Mtaa U-court shape    | <br>Rammed earth          | <br>Bedsitter           |
| <b>TYPOLOGY 9</b><br><b>MULTI-UNIT FLOOR;</b><br><b>MULTI-MATERIAL</b><br><b>STONE/IRON; BEDSITTER FLAT (INFORMAL)</b><br>Primary location:<br>(Langata, Kibera) |                       | <br>Multi-unit floor      | <br>Stone / Iron sheets   | <br>Bedsitter flat      |
| <b>TYPOLOGY 10</b><br><b>ROW HOUSING; MASONRY;</b><br><b>MAISONNETTE (FORMAL)</b><br>Primary location:<br>(Langata)  |                       | <br>Row housing           | <br>Masonry               | <br>Maisonette          |

## FORMAL AND INFORMAL TYPOLOGIES (cont.)

|  | NEIGHBOURHOOD CONTEXT | FLOOR PLATE CONFIGURATION | WALL ENVELOPE MATERIALITY | HOUSING FORM |
|--|-----------------------|---------------------------|---------------------------|--------------|
| <b>TYPOLGY 11</b><br><b>STAND-ALONE; MASONRY; BUNGALOW (FORMAL)</b><br><br>Primary location: (Karen, Langata)                        |                       |                           |                           |              |
| <b>TYPOLGY 12</b><br><b>BACKYARD ROW HOUSING; RAMMED EARTH; SINGLE ROOM (INFORMAL)</b><br><br>Primary location: (Langata)            |                       |                           |                           |              |
| <b>TYPOLGY 13</b><br><b>BACKYARDING ROW HOUSING; MULTI-MATERIAL -STONE/IRON (INFORMAL)</b><br><br>Primary location: (Kibera)         |                       |                           |                           |              |
| <b>TYPOLGY 14</b><br><b>MULTI-UNIT FLOOR; IRON SHEET; BEDSITTER FLAT (INFORMAL)</b><br><br>Primary location: (Kibera)                |                       |                           |                           |              |
| <b>TYPOLGY 15</b><br><b>SWAHILI COURTYARD; IRON SHEET; BEDSITTER (INFORMAL)</b><br><br>Primary location: (Kibera)                    |                       |                           |                           |              |
| <b>TYPOLGY 16</b><br><b>STAND-ALONE; MASONRY; VILLA (FORMAL)</b><br><br>Primary location: (Karen)                                    |                       |                           |                           |              |
| <b>TYPOLGY 17</b><br><b>MULTI-RESIDENTIAL STUDENT ACCOMMODATION; MASONRY; STUDIO FLATS (FORMAL)</b><br><br>Primary location: (Karen) |                       |                           |                           |              |
| <b>TYPOLGY 18</b><br><b>BACKYARDING ROW HOUSING; STONE; BEDSITTER (INFORMAL)</b><br><br>Primary location: (Karen)                    |                       |                           |                           |              |
| <b>TYPOLGY 19</b><br><b>ROW HOUSING; STONE; BEDSITTER (INFORMAL)</b><br><br>Primary location: (Karen, Kibera)                        |                       |                           |                           |              |
| <b>TYPOLGY 20</b><br><b>BACKYARDING ROW HOUSING; IRON SHEET; BEDSITTER (INFORMAL)</b><br><br>Primary location: (Karen, Langata)      |                       |                           |                           |              |

## KEY FINDINGS

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- **Climate resilience starts at the building level.** The study reveals major disparities in the environmental quality of rental dwellings. In Kibera, 61% report inadequate ventilation/daylight, 56% want more windows. In Karen, only 25% report ventilation issues and 12.5% daylight deficiencies. These show the need for **low-cost, rapid retrofit interventions**. Due to tenant-landlord split incentives, **locally resourced rapid-response units** are needed for priority areas.
- **Rebalancing tenant vs. landlord responsibilities:** a “**tenant burden index**” is observed in low-income areas. Tenant-managed water storage is significantly more prevalent in Kibera (86.4%) than in Langata (31.8%), or Karen (23.1%). Tenant-managed waste management is 95.5% in Kibera, compared to 31.8% in Langata and just 3.8% in Karen. By contrast, higher-income areas show a strong “**landlord responsibility index**”. In Karen, landlords are responsible for 76.9% of key maintenance, compared to 47.8% in Langata and 4.5% in Kibera. This indicates the need to **secure tenant rights and formalise maintenance agreements**.
- **Open space can act as critical climate infrastructure.** Access to open space is uneven: 39% of respondents in Kibera reported access to nearby open space, compared to 31% in Langata and 73% in Karen. In Kibera, open space is often small, residual and located along hazard-prone zones such as riverbanks or railway reserve. In Langata, these spaces consist of compound-level courtyards, backyards or semi-public parking areas whereas in Karen they range from large public parks to private gardens and courtyards. In crisis, some renters depend entirely on open space for retreat and survival, revealing **key inequalities in adaptive capacity**.
- **Policy needs to recognise informal and hybrid housing practices**, including “backyarding”, which also exists in perceived affluent neighbourhoods (e.g. Karen). International evidence (e.g. Cape Town) shows that the post hoc **legalisation of backyard housing** can support resilience. Policy needs to engage with actual existing practices rather than idealised housing models.
- **Regulating short-term let in high-income areas.** Short-term rentals (e.g. Airbnb) in high-income areas can increase housing costs and undermine social networks and collective resilience. There is a need to regulate short-term letting markets.
- **Rental housing should be reframed as critical urban infrastructure.** It is the dominant form of shelter and most widely distributed built form in the city, and it therefore requires oversight. While formal construction is already regulated, rental provision - including by informal landlords - remains under-governed, leaving significant gaps. This suggests a legitimate role for government in investing in and governing rental housing as urban infrastructure. Climate resilience strategies must also engage overlooked actors including youth (future renters) and local governance (e.g. sub-chiefs).
- **The study provides new analytical tools that enable a more precise global understanding of contemporary housing systems.** It shows how current legal frameworks (e.g. single dwelling vs. multi-dwelling units) and market classifications (e.g. by room count) are crude and unspecific, while policy remains reliant on aggregate projections. **Sharing data and knowledge about what is going to be built, where, and for whom is key** to supporting effective climate resilience planning.

## SEQUENCED BLUEPRINT FOR CLIMATE ACTION

So far, climate resilience policy in Kenya has largely focused on building standards, with limited engagement with rental markets and user practices. **Urban housing resilience is a system reform and not a construction program.** This study proposes a coordinated implementation framework that accommodates the collective, multi-actor, multi-scale and multi-sector nature of climate resilience building in the urban rental market.

The findings are translated into an **integrated reform approach**: a systemic, sequenced and multi-scalar strategy structured around four interlocking pillars:

- 1 Policy, legal and regulatory level reform
- 2 Evidence-based practice
- 3 Housing services, asset management and governance
- 4 Climate resilience financing and economics

The four pillars should not be implemented in isolation. A **sequenced implementation plan** enables scaling of interventions and feedback across systems. This positions rental housing as a **core lever for urban climate action** and shifts the focus from individual buildings to **systems, services and social relations**.

| IMPACT LEVEL  | NATURE OF REFORMS   | SEQUENCED RENTAL REFORMS  |
|---|---|---|
| <b>A</b><br>Policy, legislation and regulatory environment          | Foundational policy, legislation and regulatory reforms                   | <ol style="list-style-type: none"> <li>1 Strengthen county-level housing and climate policy through targeted additionalities.</li> <li>2 Develop a coherent urban rental housing and service market policy.</li> <li>3 Establish a rental market code aligned with lived realities, with phased compliance.</li> <li>4 Introduce climate resilient rental contracts with clearly defined shared-service obligations.</li> <li>5 Integrate housing stock adjustment and value capture into planning control, upgrading and change-of-use processes.</li> <li>6 Establish open climate risk and resilience data systems, supported by public processes and central governance.</li> </ol> |
| <b>B</b><br>Evidence-based practice and institutional strengthening | 1 Reforms that strengthen <b>anticipatory capacity</b> to climate impacts | <ol style="list-style-type: none"> <li>1 Shift from prescriptive design manuals to adaptive decision principles informed by future climate intelligence.</li> <li>2 Develop a renter-focused information and solutions playbook.</li> </ol>   |
|   | 2 Reforms that increase <b>response capacity</b> to climate impacts       | <ol style="list-style-type: none"> <li>3 Segment rental markets by starting points and livelihoods.</li> <li>4 Develop a multi-hazard delivery framework for all renter groups and service contexts.</li> <li>5 Improve market legibility by clear intervention pathways and investable portfolio rules.</li> <li>6 Mainstream shock management, contingency planning and long-term adaptation.</li> </ol>  |
| <b>C</b><br>Actor and asset manager-level strengthening             | Actor-and asset-level strengthening in rental and housing service markets | <ol style="list-style-type: none"> <li>1 Build community-level participatory capacity.</li> <li>2 Strengthen governability and coordination of the housing sector to respond to the climate emergency.</li> <li>3 Expand targeted capacity-building programs.</li> </ol>  |
| <b>D</b><br>Economic value and return on investment                 | Economic value and return on investment reform instruments                | <ol style="list-style-type: none"> <li>1 Establish a robust, evidence-based pipeline and translate multi-hazard climate resilience into a credible investment for rental housing.</li> <li>2 Design the climate resilience finance market and establish the political economy of who pays.</li> <li>3 Develop public-private financing mechanisms to deliver climate-resilient rental housing at scale.</li> </ol>  |

This study employs a mixed, participatory methodology combining primary field-based data collection with structured stakeholder engagement. Empirical data were gathered across the Karen–Langata–Kibera neighbourhoods in Nairobi through direct observation, spatial mapping and household surveys, complemented by a multi-stakeholder workshop involving participants from policy, academia, professional practice and resident networks.

An **Urban Rental Housing Capture Criteria** was developed to systematically identify, categorise and map rental housing typologies. This framework enables differentiation across built form, tenure arrangements, construction characteristics and settlement context.

Building on this typological mapping, selected housing types were analysed through structured on-site household surveys, generating comparable data across six dimensions: social, spatial, environmental, climate impacts, resilience and governance.

**The study develops transferable analytical tools to support context-specific climate responses in Kenya, Eastern Africa and beyond.** The methodology is low-cost, time-efficient, and readily replicable.

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### *Project report:*

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*Multi-stakeholder workshop held in Nairobi from (8–12 December 2025) that brought together the project team and representatives from government, academia, practice, community groups and housing actors to generate contextual insights and capture institutional perspectives.*