



42nd ANNUAL CONFERENCE & AGM
**AFRICAN UNION FOR
HOUSING FINANCE**

Transforming Africa's
Housing Future:

**Innovation, Technology, and
Value Chain Synergies**

10 - 13 November 2026 | Radisson Blu, Lusaka, Zambia

MASTERCLASS 01

PLOTTING PIPELINE

Finding the Algorithm to Solve Urban Tenement Challenges

*A case study of Pipeline Estate,
Nairobi, Kenya*



PRESENTER

Kezia Onyango

SHOUT Group



11 November 2026



Radisson Blu

An interactive spatial decision game exploring the financial, regulatory and social forces shaping urban tenement housing.



AFRICAN UNION FOR
HOUSING FINANCE



Centre for Affordable
Housing Finance
in Africa

shout
SUSTAINABLE HOUSING TECHNICAL GROUP



42nd ANNUAL CONFERENCE & AGM
**AFRICAN UNION FOR
HOUSING FINANCE**

**Transforming Africa's
Housing Future:**

**Innovation, Technology, and
Value Chain Synergies**

10 - 13 November 2026 | Radisson Blu, Lusaka, Zambia

MASTERCLASS SESSION:

Plotting Pipeline- Finding the Algorithm to Solve Urban Tenement Challenges. A case study of Pipeline Estate, Nairobi, Kenya.

Pipeline Estate in Nairobi houses over 200,000 people in under 2km². Every building exceeds its planning limits. Every unit is rented. And the landlord, the tenant, the county official, and the bank are each making rational decisions that together produce outcomes none of them intends.

This masterclass introduces Plotting Pipeline: a spatial decision game built on 179 household interviews, five building technical assessments, a GIS analysis of Pipeline Estate and a policy and regulatory analysis. Participants step into one of four stakeholder roles on a live satellite map, navigate decisions, face shocks, and discover whether different choices can shift the system toward better housing outcomes.

The challenge is not a shortage of resources or a failure of goodwill. It is a structural misalignment between actors who each hold a piece of the solution. The session closes with a facilitated debrief connecting Pipeline's findings to participants' own contexts across Africa.

Participants will gain:

- Practical insight into the financial, regulatory, and social mechanics of informal tenement housing
- Direct experience of multi-stakeholder decision-making under data and constraints
- A framework for brownfield intervention applicable beyond Pipeline to any African city where tenement housing is the dominant form of affordable delivery