fsd Kenya

De-Risking Demand:

How Structured Waitlists and Guarantee Frameworks Unlock Cooperative Housing Finance

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The Housing Challenge

2M+

Unit housing deficit in Kenya

80%

Cannot afford current supply

<2%

Mortgage penetration

The bottleneck is not demand. It is the absence of credible, verified off-take that would give developers and financiers confidence to build.

Developers cannot raise debt or equity without a credible off-take arrangement

Why Current Approaches Fail

1	**No verified demand**	Interest lists are not binding commitments; developers cannot underwrite against them
2	**Affordability mismatch**	Units priced above what target households can pay, leading to low uptake
3	**No deposit readiness**	Households lack savings discipline; deposits come late or not at all
4	**Off-taker risk is unpriced**	Vacancy and default risk falls entirely on the developer, blocking finance

Result: a coordination failure where each party waits for the other to move first

The Solution: THWG

Tenant Housing Waiting-list Guarantee

Structured Waiting List

Verified, deposit-ready households in 8 tiers

Bounded Guarantee

Covers limited non-payment after deposit exhausted

Stronger Off-take

Developers & financiers gain confidence to build

Outcome: developers can raise debt and equity to build affordable housing

The Demand Funnel: 8-Tier Pipeline

1	**Interested**	Expressed interest
2	**Registered**	KYC completed
3	**Screened**	Affordability confirmed
4	**Deposit started**	Saving towards deposit
5	**Deposit ready**	Full deposit in escrow
6	**Matched**	Allocated to a unit
7	**Committed**	Lease signed
8	**Occupied**	Moved in, paying rent

Key Insight

By Tier 5, a household has a verified deposit in escrow. This is the trigger point for guarantee eligibility and unit matching.

Conversion Logic

50,000 onboarded

→ **2,000** guarantees issued

How the Guarantee Works

1

Deposit-First Loss

Household deposit (1–3 months) is exhausted before guarantee pays. This aligns incentives and limits exposure.

2

Bounded Cover

Guarantee covers only the gap between deposit exhaustion and tenant replacement — typically 2–4 months.

3

Fast Replacement

Waiting list enables rapid re-letting. Each empty month that is avoided is a month the guarantee does not pay.

The guarantee is not a subsidy — it is a time-limited bridge that the waiting list makes short

Expected Claim Costs

Per active guarantee, per year | Monthly payment = KES 10,000 | After deposit

Base

Claim frequency	4%
Payable months	2

Annual expected cost

KES 800

KES 67

/month

Downturn

Claim frequency	7%
Payable months	3

Annual expected cost

KES 2,100

KES 175

/month

Shock

Claim frequency	12%
Payable months	4

Annual expected cost

KES 4,800

KES 400

/month

Note: expected costs, not maximum payout. Caps and replacement discipline limit actual exposure.

Year 1 Pilot Plan

50,000

Households onboarded to the waiting list

2,000

Active guarantees issued in Year 1

KES 123.8M

Total Year-1 programme cost (base scenario)

3 Pilots

Nairobi, Mombasa, Kisumu metropolitan areas

Cost breakdown: Opex KES 95.4M + Expected claims KES 28.4M = Total KES 123.8M

Impact at Scale

5-Year (Mid)

18,000
Housing units delivered

36,000
Construction jobs created

KES 54B
Private finance mobilised

10-Year (Mid)

80,000
Housing units delivered

160,000
Construction jobs created

KES 240B
Private finance mobilised

Every KES 1 of guarantee exposure can unlock KES 15–20 of private construction finance

What Makes This Different

Demand-led, not supply-pushed	Verified waiting list proves off-take before construction starts
Bounded, not open-ended	Deposit-first loss + replacement discipline keep expected costs low
Market-building, not subsidy	Designed to crowd in private capital, not replace it
Data-rich governance	Real-time dashboard tracks pipeline, claims, and financial exposure
Scalable infrastructure	Cooperative network provides low-cost member onboarding at scale

Next Steps

1	**Stakeholder alignment** Convene cooperatives, off-takers, and county governments around the THWG design	Q2 2026
2	**Pilot structuring** Finalise guarantee terms, pricing, and operating model with anchor partners	Q3 2026
3	**Waiting list build** Begin onboarding 50,000 households through cooperative networks	Q3–Q4 2026
4	**First guarantees issued** Issue initial guarantees to matched, deposit-ready households	Q1 2027

The Kenya Cooperative Sector Reality

2,500

Housing and Investment Cooperatives

14M

Total Cooperative Members

1

33%
(4.6M)

Are in Urban Areas

72%
(3.3M)

Do not own a home

25%
USD 1 Billion

Loans Distributed by Saccos is for housing and land

The Nature of Housing Cooperatives

Advantages:

- Highly trusted, tightly nit, community-based entities – built in trust and social accountability
- Member ownership and incentive alignment
- Many cooperatives jointly own development ready land
- Efficient network for program delivery

Opportunities:

- Standardization of onboarding criteria across many unique forms, and processes
- Digital enablement for operational efficiency
- Providing members a more structured pathway to housing readiness
- Extended access to properties and projects beyond their localized communities

This is a national network of ready and waiting citizens. **The challenge isn't creating demand—its verification and efficiency.**

Pilot:

Household Evaluation and Affordability Scoring Methodology to Stregnthen Tenant Waitlist

Powered by Pngme

Pilot Period: Nov 2025 – Feb 2026

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Pilot Structure

Affordable housing allocation remains difficult because:

- Income verification is unreliable in informal economies
- Waiting lists are manual and fragmented
- Self-reported income often lacks verification
- Housing projects struggle to identify **financially ready households**

Result:

- Misallocation of housing units
- Higher risk of tenant default
- Exclusion of informal workers

The project aimed to:

- Digitize cooperative housing waitlists
- Verify household financial capacity
- Develop an affordability scoring methodology
- Create a transparent system for housing allocation

Outcome:

A **data-driven tenant waitlist system** combining traditional cooperative onboarding with **digital financial intelligence**.

The System We Built

200+ Data Points for Validation and Assessment

- Live Household Dashboard and Waitlist Index
- Affordability Scorecard and Ranking System
- Household Matching Interface

Unified Data Infrastructure for Household Profile

Household and Personal Data Sources

NACHU Digital Onboarding Form

- Household Profile Data Collection
- Identity, contact details, pilot consent
- Cooperative Affiliation

ScoreMe Digital Scoring App

- Mobile Transaction Data (MPESA, Bank accounts)
- Digital Income Estimation
- Risk Assessment

NACHU Internal DataBase

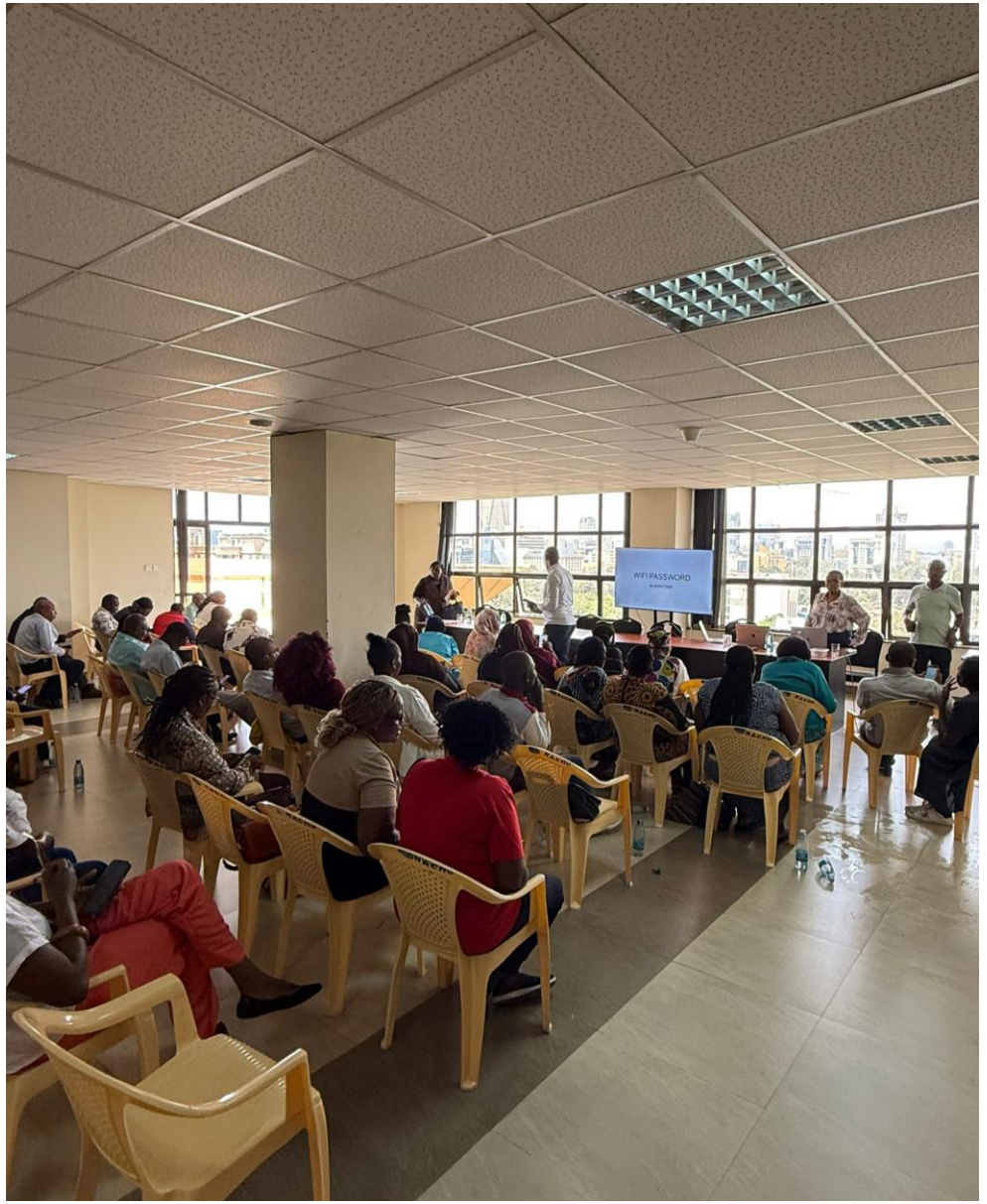
- Cooperative Profile
- Deposits held with Cooperative
- Land / Home purchase history

Pilot Execution

Over a **12–16 week pilot**, the project achieved:

- 4 onboarding sessions
- 29 housing cooperatives engaged
- 214 total attendees
- **123 households onboarded**
- **56 households with full digital profiles**
- **18 Households** Deemed “Housing Ready”

These households represent the **first structured affordable housing waitlist** within the NACHU ecosystem.



Waitlist Demographics

1. Core Demographic

- **Gender:** The waitlist is majority **Female (66.3%)**, with **Male** applicants making up **33.7%.**
- **Marital Status:** Most applicants are **Married (61.8%)**, followed by **Single (30.3%)** and **Widowed (7.9%)**.
- **Employment Sector:** The informal sector is the primary driver of this waitlist at **61.6%**, while **27.9%** are in formal employment and **10.5%** balance both.
- **Household Size:** On average, applicants support **3.2 dependents**, emphasizing the need for family-sized affordable units.

2. Employment Information

- **Employment Type:** The majority of applicants work in the **Informal sector (61.6%)**, while **27.9%** are in **Formal** employment, and **10.5%** balance both.
- **Experience:** Applicants are generally well-established in their trades, with **65.9%** reporting **over 3 years of experience**.
- **Top Trades:** The most common occupations involve general **Business**, small-scale **Trade**, and **Self-employment** (e.g., farming, teaching, and real estate).

3. Household and Location

- **Dependents:** On average, applicants support **3.2 dependents**.
- **Primary Locations:** Most applicants are based in **Nairobi**, with specific concentrations in areas like **Kamulu**, **Kibra**, and **Mlolongo**.

4. Rental Contribution Analysis

- **Overall Independence: 72.7%** of all applicants are **sole contributors** to their rent payments.
- **Shared Responsibility: 27.3%** of the waitlist relies on additional contributors (spouses, relatives, or children) to meet rental obligations

Financial Breakdown

Average Monthly Income

Self Reported: ~ 38,179 KES
Digitally Estimated: ~34,234 KES

Savings Behaviour

Self-Reported Savings were higher on average than digitally verifiable savings.

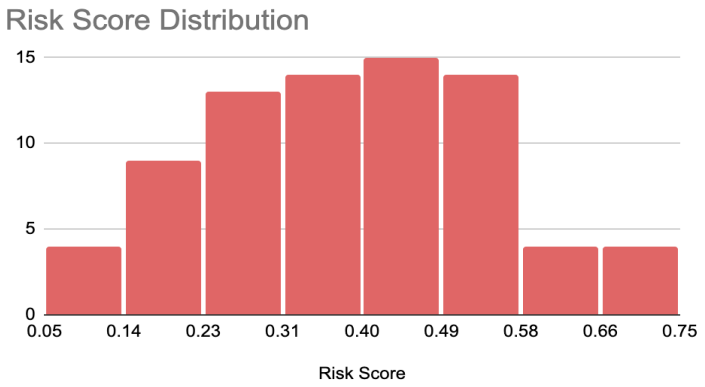
Risk and Credit Stability

40% Average Risk Score **(Pngme Risk Model)**

20% of Members have defaulted on a cooperative loan

Metric	Pngme Income Model	Self-Reported	Mean of Means
Median	10,299 KES	25,000 KES	20,149 KES
Mean	27,228 KES	38,348 KES	34,468 KES

Group	Count	Median Self Savings	Median Digital Balance
Both Estimates Available	**48**	5,000 KES	1,746 KES
ONLY Self-Reported	**40**	5,000 KES	N/A
ONLY Pngme Generated	**31**	N/A	7,892 KES



Key Insight

Consistent difference between self reported savings and balances in digital wallets shows reserves are not kept in current accounts - emphasizes the need to look at Cooperative held deposits

Affordability Ranking and Household Assessment Model

1. Data-driven scoring model combining **income, risk, cashflow behaviour, and spending patterns**
2. Built using **183 potential data points** per applicant.
3. **Maximum base score: 84 points + 5-point shared income bonus**
4. Integrates **self-reported data, cooperative data, and Pngme digital financial intelligence**

Variable	Scoring Criteria	Point Range
Payment Capacity (Self-Reported vs. Estimated): The system looks at how much the applicant claims they can pay versus what the system estimates they can pay based on data.	Self Reported Affordability is calculated by multiplying Self-Reported "Average Monthly Income" by 40% to get a baseline Housing Affordability Indicator. Higher payment brackets (above 15k KES) earn full points (12), while lower brackets (below 5k KES) earn half points (6). System Estimate Affordability if calculated by multiplying Pngme Estimated Income by 40% to get a baseline Housing Affordability Indicator. Higher payment brackets (above 15k KES) earn full points (12), while lower brackets (below 5k KES) earn half points (6).	0- 24
Cashflow Stability "Cashflow Pattern": The system looks at	If an applicant's bank or mobile money records are "Consistently Positive," they earn maximum points (12). If they frequently spend more than they receive ("Consistently Negative"), they earn the lowest score (6). Pngme's 90 Day Cash Flow Analysis also determines if Cashflow is dependent ("Situational"); in which case they earn 10 Points.	0 - 12
Income Level: Applicants are categorized by High, Medum, and Low Income.	High income earn 12 points each. Conversely, those categorized as "Low" income receive 0 points for these sections.	0-12
Risk Levels: Applicants are categorized by High, Medum, and Low Risk.	"Low" Risk earn 12 points each. Conversely, those categorized as "High" Risk receive 0 points for these sections.	0-12
Affordability Consistency: This measures "truth-telling" and data agreement.	If an applicant's ability to pay is confirmed by all data sources (self-reported, median, and estimated), they get 12 points. If they only qualify based on one source (like just what they said), the score drops.	0-12
Spending Habits: Spending behaviour is analyzed through transaction categorization.	Applicants are rewarded for "Builder" behavior (investing or saving). "Essential" spenders (living paycheck to paycheck) get fewer points, and "Risky" spenders (gambling or excessive luxury spend) receive 0 points.	0-12
The "Shared Income" Bonus:	If an applicant is not the sole contributor (meaning they have a spouse or relative helping with rent), they receive a 5-point boost. This recognizes that two or more incomes are more stable than one.	0-5

Waitlist Snapshot

Affordability Tier	Applicant Count	Median Score	Score Range (Min - Max)
Tier 3 - Second Highest	18	65	62 – 77
Tier 2 - Middle	56	52	40 – 58
Tier 1 - Low	49	34	20 – 39
Risky	1	18	18 – 18

Observations:

- We identified a **'Tier 3' group (15%)** – our 'housing-ready' top performers. They have a median income of 50,000 KES, high transparency, and are ideal for immediate allocation to rent-to-own schemes.
- The largest segment is **'Tier 2' (45%)** – the core of the informal market. They are reliable but have moderate liquidity. They need flexible payment products, like weekly or bi-weekly installments, that match their income rhythm.
- And **'Tier 1' (40%)** are members with lower financial capacity who may need more significant support and coaching before they are ready.

This isn't just a list of names; it's a portfolio of financial profiles that allows us to match the right unit to the right household with the right financial product.

The Housing Ready 18

	Model Output		Pngme Data Variables					Self Reported Data			NACHU
Session Date	Total Score	Affordability Tier	Spender Type	Risk Score	Income Est.	Discr. Income	Cashflow Behaviour	Monthly Income	Monthly Commit	Monthly Rent	Balances
2/6/2026	77	Tier 3 - Second Highest	Essential Spender	16%	115,542	114,532	Consistently Negative	50,000	20,000		
2/6/2026	75	Tier 3 - Second Highest	Essential Spender	47%	181,420	173,100	Consistently Negative	100,000	5,000	25,000	
11/14/2025	74	Tier 3 - Second Highest	Essential Spender	44%	46,368	31,148	Situational	120,000	5,000	30,000	
2/6/2026	74	Tier 3 - Second Highest	Essential Spender	39%	51,412	32,989	Situational	80,000	15,000	12,000	
2/6/2026	73	Tier 3 - Second Highest	Builder	21%	23,754	7,254	Consistently Negative	70,000	30,000	25,000	
2/6/2026	70	Tier 3 - Second Highest	Essential Spender	31%	162,312	147,179	Consistently Negative	50,000	5,000	10,000	
12/5/2025	68	Tier 3 - Second Highest	Builder	56%	10,368	-30,058	Consistently Negative	50,000	3,000	12,000	
2/6/2026	66	Tier 3 - Second Highest	Mixed Spender	51%	31,841	31,841	Consistently Negative	90,000	15,000	10,000	
2/6/2026	65	Tier 3 - Second Highest	Mixed Spender	42%	100,599	100,291	Situational		5,000	8,000	

The Housing Ready 18

	Model Output		Pngme Data Variables					Self Reported Data			NACHU
Session Date	Total Score	Affordability Tier	Spender Type	Risk Score	Income Est.	Discr. Income	Cashflow Behaviour	Monthly Income	Monthly Commit	Monthly Rent	Balances
2/6/2026	65	Tier 3 - Second Highest	Builder	51%	19,505	14,805	Consistently Positive	20,000	5,000	5,000	
12/5/2025	64	Tier 3 - Second Highest	Essential Spender	28%	10,330	5,680	Consistently Negative	50,000	20,000	20,000	**100,000**
12/5/2025	64	Tier 3 - Second Highest	Essential Spender	37%	11,202	-2,232	Consistently Negative	300,000	60,000		**356,000**
2/6/2026	63	Tier 3 - Second Highest	Essential Spender	34%	54,019	54,019	Situational	25,009	15,000		
12/5/2025	62	Tier 3 - Second Highest	Essential Spender	48%	10,312	10,207	Consistently Negative	50,000	10,000	15,000	**54,000**
2/6/2026	62	Tier 3 - Second Highest	Essential Spender	34%	10,224	9,934	Consistently Negative	50,000	15,000	0	
11/14/2025	62	Tier 3 - Second Highest	Builder	17%	124,216	107,216	Consistently Negative				
11/14/2025	62	Tier 3 - Second Highest	Builder	33%	49,792	46,572	Situational				
11/14/2025	62	Tier 3 - Second Highest	Essential Spender	24%	143,541	127,541	Situational				

Current Baseline for Unit Matching

Metric	Current observed baseline	Operational implication
Attendees engaged	205	Top-of-funnel interest is real but not the decision metric
Unique households onboarded	123	Current usable field base
Full dual-channel sign-ups	56	Current meaningful completion base
Immediate high-priority / guarantee-model prospects	18	Current near-term allocation-ready cohort
Middle affordability tier	56	Progression pool requiring deposit-building and readiness support
Onboarding conversion (onboarded / attendees)	60.0%	Strong event conversion when sessions are well targeted
Full completion rate (full dual-channel / onboarded)	45.5%	Completion remains the main operational bottleneck
Immediate high-priority rate (18 / 123)	14.6%	Current observed "near-term ready" strike rate
High-priority share of full dual-channel records (18 / 56)	32.1%	Stronger yield once records are complete

Family Unit Matching to 18-Near Term Ready Households

On that interim basis, and excluding bedsits for the purpose of family-unit matching, the Phase 1 family-unit mix is;
- **44.4% one-bedroom,**
- **44.4% two-bedroom,**
- **11.1% three-bedroom**.

Applying that mix to the current **18 near-term ready households** gives an indicative picture of what the present field base could support if Mlolongo were the first linke pipeline.

Indicative family-unit matching bridge using current near-term ready cohort
(Bedsits excluded from this table; figures are illustrative planning equivalents, not final allocations.)

Typology	Phase 1 units	Share of family-unit mix	Indicative share of current near-term ready cohort	Indicative near-term ready households now	Indicative ready + progression pool*
1-bed	78.2	44.4%	44.4%	8.0	32.9
2-bed	78.2	44.4%	44.4%	8.0	32.9
3-bed	19.6	11.1%	11.1%	2.0	8.2
Total (family units only)	176.0	100.0%	100.0%	18.0	74.0

** Ready + progression pool = current near-term high-priority cohort (18) plus middle affordability tier (56). This is not current allocatable demand; it is the pool that may become matchable if progression support works.*

Creating value through **inclusive finance**

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