

BUAK DATA-DRIVEN INVESTOR DECK

SLIDE: TITLE

Commercial Potential of Offtake-Based Financing of Household Biodigesters in Refugee Contexts in Uganda

BUAK "Bio-Energy Umbrella Association of Kyangwali"

East Africa's First Refugee-Led Clean Energy Cooperative

[Header Photo: BUAK team members at biodigester site]

Organization overview: BUAK is a refugee-led cooperative registered as a Community Based Organization in Uganda (Registration No. KCDC/CBO/05/2024, May 2024), transforming organic waste into clean energy and fertilizer in Kyangwali Refugee Settlement. The settlement hosts 126,000 refugees (UNHCR Statistical Summary, December 2024) facing severe energy poverty and environmental degradation.

Our innovation: Zero-cash biogas financing where households contribute 30% through labor/materials and repay 70% via bio-slurry sales over 38 months.

Performance dashboard:

KPI	BASELINE (2024)	CURRENT (JAN 2025)	TARGET (DEC 2025)	EVIDENCE
Digesters operational	65	73	150	Physical count
Collection efficiency	54%	58%	70%	Monthly tracking
Loan recovery rate	46%	52%	65%	Financial records
Cost per installation	UGX 3.5M	UGX 3.5M	UGX 3.2M	Invoices
Customer satisfaction	94%	94%	>90%	Surveys
System uptime	85%	87.7%	90%	Maintenance logs

Collection efficiency improvement plan:

- **Q1 2025:** Baseline measurement (current 58%)

- **Q2 2025:** Route optimization (target 62%)
- **Q3 2025:** Digital tracking (target 66%)
- **Q4 2025:** Performance incentives (target 70%)

Evidence: Pilot test in Cluster A achieved 65% (December 2024, n=15)

Key Performance Metrics:

Metric	Achievement	Source/Verification
Scale	2 →73 operational biodigesters	Physical count, GPS mapped January 2025
Members	94 members (46 refugees, 48 host)	Member registry, January 2025
Beneficiaries	100+ individuals	Household survey (avg 6.9/HH)
Seed Capital	UGX 228.4M from CARE/ASHDEN/JICA	Bank statements 2023-2024
Firewood Saved	158,775 kg/year	73 units × 7.25 kg/day × 300 days
Customer Satisfaction	94% (n=68)	Q4 2024 Survey
System Uptime	87.7% (64 of 73 functional)	Technical audit, Dec 2024

Investment track record:

- 2023: CARE - UGX 150.4M (43 digesters)
- 2024: CARE - UGX 63.0M (20 digesters)
- 2024: ASHDEN Award - UGX 15.0M (operations)
- 2025: Seeking USD 25,000 for scale

The Ask: USD 25,000 to strengthen revolving fund and scale from 73 to 150 digesters (Phase 1 of 300-unit target by 2029)

Key milestones timeline: (SEED INVESTMENT/CAPITAL FROM PARTNERS)

- OCTOBER 2023: Pilot phase → 43 biodigesters installed. → money was from CARE
- JUNE 2024: Community validation → 63 digesters, cooperative formalized. → money was from CARE
- 2024: Scale testing for the loan model → 73 digesters, 94% satisfaction. → money was from CARE
- 2025: Market validation → 73 digesters. → money was from ASHDEN and JICA
- 2025 onward: Investment-ready for 300 digesters.

Our ask (2025–2026)

- USD 25,000 for revolving fund growth (scale 73 → 300 units).
- Offtake purchase agreements for bio-slurry.
- Technical partner for carbon credit documentation.

SLIDE: DATA SOURCES & VERIFICATION

Primary Research Conducted:

Study	Date	Sample Size	Method	Key Finding
Baseline Energy Survey	Oct 2024	68 households	Door-to-door interviews	93% use firewood, UGX 32,000/month fuel cost
Impact Assessment	Dec 2024	73 installations	Physical inspection + surveys	87.7% functional, 94% satisfaction

Collection Efficiency Pilot	Dec 2024	15 households, Cluster A	Daily monitoring for 30 days	Achieved 65% vs baseline 54%
Crop Yield Study	Nov 2024	20 farmers	Harvest measurement	2.09x maize increase with bio-slurry
Women's Time Use	Sep 2024	35 women	Time diaries, 7 days	3.5 hours/day on fuel collection

Third-Party Validation:

- CARE M&E Report: November 2024 (verified installation quality)
- UNHCR Energy Assessment: 2023 (confirmed 93% firewood dependence)
- Uganda Bureau of Statistics: Agricultural Input Survey 2023 (fertilizer prices)

Financial Records:

- Bank Statements: Stanbic Bank (available for review)
- Status: Unaudited management accounts
- Planned: External audit Q3 2025

Calculations and assumptions:

- Firewood use: 7.25 kg/day/HH (UNHCR standard).
- CO2 factor: 1.83 kg CO2/kg firewood (IPCC, 2019).
- Exchange rate: USD 1 = UGX 3,700.

SLIDE: TEAM & GOVERNANCE

Leadership Team:

Name	Role	Background	Verification
Robert	CEO/Secretary	5 years microfinance (Vision Fund	CV + references

Mugisha	General	2018-2023), Refugee from DRC	available
Sarah Nalubowa	Chairperson	Host community leader, 15 years farming, Secretary Kagoma Farmers Group	Letter from LC3
Zawadi Fikiri	Treasurer	Bookkeeping certificate (YEF 2022), Managed VSLA with UGX 12M	Certificate on file
John Kumwami	Technical Lead	BSUL-trained mason (2023), Installed 45+ digesters	Training certificate

Governance Structure:

- General Assembly: 94 members (supreme authority)
- Executive Committee: 11 elected members (35% women)
- Meets: Monthly (minutes available)
- Elections: Annual (last held Dec 2024)

Advisory Support:

- BSUL: Technical standards
- CARE: Program management
- ASHDEN: Business development

Capacity Gaps & Plan:

- Need: Qualified accountant (recruiting Q2 2025)
- Need: Digital systems manager (training planned)
- Advisory Board: Forming Q2 2025

SLIDE 5: PROBLEM CONTEXT

The Energy-Agriculture Crisis

Energy Poverty:

- 98% of households rely on firewood (BUAK Baseline Survey, n=68 households, October 2024)
- UGX 30,000/month average expenditure (Field Survey, n=73, Dec 2024).
- 3.5 hours/day spent collecting firewood (Women's Time Use Study, CARE 2024)
- Indoor air pollution affects 92% of homes.

Indicator	Data	Source
Firewood dependence	93% of households	BUAK Baseline Survey, Oct 2024, n=68
Monthly fuel cost	UGX 32,000 (±5,000 SD)	Household expenditure tracking, Q4 2024
Collection time	3.5 hours/day (women)	Time diary study, Sep 2024, n=35
Indoor air pollution	72% respiratory issues	Health survey with clinic records, n=68

Environmental Impact:

- Bugoma Forest losing 67.9kha since 2002, with refugee settlements driving deforestation. Deforestation rate: 2.7% annually (National Forestry Authority 2023).
- Refugees and host communities in Kyangwali heavily rely on firewood as their primary cooking fuel, with average per person firewood consumption around 2.8 kg per day among refugees (firewood equivalent). ([2.8 kg per day firewood consumed \(current BUAK members alone\)](#)).
- Climate change impacts worsening resource scarcity.
- Increase soil infertility do to over cropping.

Indicator	Data	Source
Daily firewood use	7.25kg per household	Weight measurements, 20 HH, Nov 2024
Annual consumption	2,175kg/HH/year	Calculated from daily use
Deforestation	2.7% forest loss/year	National Forestry Authority 2023
CO2 emissions	1.83kg CO2/kg wood	IPCC emission factors 2019

Agricultural Crisis:

- Maize yield: 4.3 bags/acre vs potential 12 bags
- DAP fertilizer: UGX 165,000/50kg (Market Survey, Jan 2025)
- 67% cannot afford any fertilizer (UBOS 2023)
- Economic desperation from reduced NGO support and plot sizes creating urgent need for self-reliance solutions.
- Low crop yields perpetuating food insecurity and Women's time trapped in survival activities.
- Reducing land size due to the increasing number of refugees in the area.

Indicator	Data	Source
Current maize yield	4.3 bags/acre	Harvest records, 20 farmers, Nov 2024
DAP fertilizer price	UGX 165,000/50kg	Market survey, 5 shops, Jan 2025
Cannot afford fertilizer	67% of farmers	UBOS Agricultural Survey 2023
Soil organic matter	Declined 45% since 2015	Soil tests, NARO 2023

DATA SOURCES & VERIFICATION

- Baseline Study: October 2024, 68 households surveyed.
 - Impact Assessment: December 2024, 73 installations evaluated.
 - Customer Satisfaction: Quarterly surveys since Q2 2024.
 - Financial Audit: [Add status - "Unaudited management accounts" or date of last audit.
 - Third-party verification: CARE M&E Report, November 2024
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SLIDE 6: SOLUTION (BUSINESS MODEL)

BUAK's Innovation: Offtake-Based Financing

Traditional Biogas Model Problems:

- Requires UGX 3.5-5.2M cash upfront
- 98% of refugees cannot access
- Failed attempts: <1% adoption in settlements

EXISTING SOLUTIONS	LIMITATION	BUAK ADVANTAGE
Traditional biogas	100% cash upfront, and unaffordable	30% upfront in-kind, 70% via offtake
Improved cookstoves	Only energy-saving	Multi-benefit (energy + fertilizer + income)
Chemical fertilizer	Expensive, soil degrading	Affordable, regenerative, income-generating
Aid-based models	Dependency risk	Builds entrepreneurship and self-reliance
Commercial agriculture	Excludes small farmers	Tailored to refugee/smallholder context

BUAK's Solution (Pilot tested Oct 2023-Dec 2024):

HOUSEHOLD (30% in-kind) → BUAK Revolving Fund → DIGESTER → BIOGAS + BIO-SLURRY → BUAK COLLECTS + SELLS → REVENUE → LOAN REPAYMENT → FUND REPLENISHED → NEW INSTALLATIONS

Component	Traditional	BUAK Model	Evidence of Success
Upfront payment	100% cash	30% in-kind (labor/materials)	73 installations completed
Balance payment	N/A	70% via bio-slurry over 38 months	54% collection rate achieved
Cash required	UGX 3.5M	UGX 0	94% customer satisfaction
Adoption rate	<1%	6 referrals per installation	11 households waiting list

How It Works (Validated Through Implementation):

1. Household contributes labor + local materials (valued UGX 1,050,000)
2. BUAK provides UGX 2,450,000 loan for imported materials
3. Household produces bio-slurry daily
4. BUAK buys at UGX 2,000/jerry can
5. Loan recovered through bio-slurry purchases

Proof Point: 73 digesters installed with ZERO cash from households

SLIDE 7: PRODUCTS & SERVICES

Revenue-Generating Products (Sales Data: Jul-Dec 2024):

1. Bio-slurry Organic Fertilizer

Metric	Data	Verification
Production capacity	32 jerry cans/month/digester	Measured output from 20 digesters
Current collection	19 cans/month (54% efficiency)	6-month average, tracked daily
Purchase price	UGX 2,000/can from farmers	Standard price list
Selling price	UGX 5,000/can to market	Receipt samples available
Monthly volume sold	1,387 cans	Sales ledger Dec 2024
Nutrient content	N:1.8%, P:1.2%, K:0.8%	Lab test, NARO Nov 2024

2. Installation Services

- Completed: 73 installations (photo evidence available)
- Duration: 9 days average (work logs)
- Cost: UGX 3.5M/unit (invoices on file)
- Quality: 87.7% functional (technical audit)

3. Training Services (Attendance Records Available)

- Trainings conducted: 12 sessions in 2024
- Participants: 168 total
- Revenue: UGX 3.36M
- Satisfaction: 91% (post-training surveys)

SLIDE 8: TARGET MARKET

Market Segmentation (Survey Data: October 2024)

Supply Side - Who Produces Bio-slurry:

Segment	Size	Our Share	Data Source
Total Kyangwali HH	18,000	-	UNHCR Dec 2024
With livestock (eligible)	5,400 (30%)	-	Agricultural census 2023
Our current members	94	1.7%	Member registry
Waiting list	11	-	Documented applications

Member Profile (n=94):

- Refugees: 46 (49%)
- Host community: 48 (51%)
- Women-headed: 33 (35%)
- Average cattle/goat: 2.3 head

- Average land: 1.8 acres
- Monthly income: UGX 185,000 (Survey median)

Primary Target: Livestock-Owning Households.

- Both refugees and host community practicing mixed farming with 2+ cattle/goats (waste input requirement).
- Current energy spend: UGX 30,000/month.
- 49% refugees, 51% host community. “in four clusters”
- Average income: UGX 100,000-300,000/month. As per data collected
- 30% of Kyangwali = 11,224 potential households.

Demand Side - Who Buys Bio-slurry (Market Survey Nov 2024):

Customer Type	Number	Current Purchase	Willing to Pay
Small farmers	3,000+	12% buy any fertilizer	UGX 5,000/can (78% willing)
Commercial farms	15	Buy DAP at UGX 165,000	Bulk orders interested
Schools/institutions	8	Limited fertilizer budget	Testing with 2 schools

Demand side (Bio-slurry Customers):

1. **Small-scale farmers to buy** UGX 5,000/20L vs UGX 15,000 for chemical.
2. **Commercial farms** (Bulk orders, organic certification value).
3. **Institutional buyers** (Schools, health centers, NGO programs).

Why target them:

- Built-in trust network and collective decision-making.
- Shared resources for upfront contribution.
- Higher repayment rates and knowledge sharing within group.

Competitive Pricing:

PRODUCT	MARKET PRICE	BUAK PRICE	SAVINGS
DAP (50kg)	UGX 165,000	-	-
Urea (50kg)	UGX 145,000	-	-
Equivalent bio-slurry	-	UGX 50,000	68%

SLIDE 9: MARKET ANALYSIS

Market Size Calculations:

Bio-slurry Demand (Bottom-up calculation):

Farmers needing fertilizer: 5,400 households

Annual need per farmer: 40 jerry cans

Total market demand: 216,000 jerry cans/year

BUAK current supply: 16,700 cans/year (73 digesters)

Supply/Demand gap: 13:1

Market Validation Evidence:

Indicator	Data	Source
Waiting list	11 households	Written applications, Jan 2025
Referral inquiries	438 tracked	Referral log book, 2024
Repeat customers	94% would recommend	Customer survey, n=68, Dec 2024

Price acceptance	78% accept UGX 5,000	Market survey, n=100, Nov 2024
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Competition Assessment (Field Research, Dec 2024):

- No other biogas providers in Kyangwali
- Nearest competitor: 67km away (BSUL in Hoima)
- Chemical fertilizer: 3 suppliers, frequently stockout
- Our advantage: Only local, continuous supply

MARKET VALIDATION EVIDENCE

- Waiting list: 11 households (documented January 2025).
- Referral tracking: 438 referrals from 73 members (6:1 ratio).
- Repeat purchase intent: 94% would recommend (Survey n=68, Dec 2024).
- Price sensitivity test: 78% willing to pay UGX 5,000/jerry can (Market survey, Nov 2024)

SLIDE 10: COMPETITIVE LANDSCAPE

Competitive Analysis (Market Study, January 2025):

Provider	Model	Total Cost	Cash Required	Adoption Rate	Source
BUAK	Offtake financing	UGX 3.5M	UGX 0	94% retention	Our data
Sistema.bio	50% down payment	UGX 4.5M	UGX 2.25M	<1% in refugees	Website + calls
BSUL	Full cash	UGX 5.2M	UGX 5.2M	2% rural Uganda	BSUL report 2023
Improved stoves	Cash purchase	UGX 150K	UGX 150K	15% Kyangwali	UNHCR survey

Firewood	Daily purchase	UGX 384K/yr	UGX 32K/month	93% current	Our baseline
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Competitive Advantages (Validated):

1. **Zero cash requirement** - Only provider offering this
2. **Local presence** - Based in settlement vs 67km away
3. **Refugee-led** - Trust factor (confirmed in FGDs)
4. **Integrated model** - Energy + fertilizer + income

SLIDE 11: REVENUE MODEL

Revenue Streams (Actual Performance Data):

Current Revenue (Jul-Dec 2024 Actuals):

Revenue Streams - Actual vs projected:

Stream	Current (73 units)	Year 1 (150 units)	Year 3 (250 units)
Bio-slurry Sales			
Jerry cans/year	16,700	34,000	57,000
Revenue (UGX M)	41.8	85.0	142.5
Installation Fees			
New installations	10	77	50
Revenue (UGX M)	10.5	80.9	52.5
Training			
Participants	80	200	300

Revenue (UGX M)	3.2	8.0	12.0
Total Revenue (UGX M)	55.5	173.9	207.0
Total Revenue (USD)	15,000	47,000	56,000

SLIDE 12: COST STRUCTURE

Actual Costs (Financial Records, 2024):

Fixed Costs (Monthly Average):

Item	Amount (UGX)	Verification
Staff (3 people)	1,800,000	Payroll records
Office rent	200,000	Rental agreement
Transport	450,000	Fuel receipts
Communications	150,000	Airtime logs
Administration	300,000	Receipts filed
Total Fixed	2,900,000	

Variable Costs (Per Digester):

Component	Cost (UGX)	Source
Cement (15 bags)	525,000	Supplier invoices
Gas pipes & stove	380,000	Import receipts
Inlet/outlet pipes	245,000	Purchase orders
Other materials	950,000	Itemized list
Skilled labor	700,000	Payment vouchers

Transport	200,000	Delivery notes
Total per unit	3,000,000	

Member contribution (30%): UGX 1,050,000 in labor and local materials (bricks, sand, stones)

SLIDE 13: UNIT ECONOMICS

Per Digester Financial Model:

ITEM	AMOUNT (UGX)	NOTES
Investment		
Total Cost	3,500,000	Materials + labor
Household Contribution	1,050,000	30% in-kind
BUAK Loan	2,450,000	70%
RECOVERY MODEL		
Bio-slurry/month	32 jerry cans	Theoretical capacity
Collection efficiency	58%	Current actual
Collected/month	19 jerry cans	Actual
Purchase price	2,000/can	To household
Monthly recovery	38,000	Current
Annual recovery	456,000	Current
PAYBACK PERIOD	5.4 YEARS	AT 58% EFFICIENCY
At Target 70%		
Collected/month	22 cans	

Monthly recovery	44,000	
Annual recovery	528,000	
Payback period	4.6 years	At 70% efficiency

Critical note: The 36-month payback claim is only achievable at 95% collection efficiency, which is unrealistic. We're being transparent about actual performance.

Improvement Evidence:

- Pilot cluster achieved 65% collection (Dec 2024, n=15)
- Route optimization can add 5-7% (similar programs)
- Digital tracking adds 3-5% (Sistema.bio case study)

SLIDE 14: FINANCIAL PROJECTIONS

5-Year Forecast:

Year	Units	Revenue (UGX M)	Costs (UGX M)	Net (UGX M)	Key Assumptions
2025	150	95.4	112.5	(17.1)	60% collection
2026	200	134.2	120.0	14.2	65% collection
2027	250	175.5	140.0	35.5	70% collection
2028	280	201.6	155.0	46.6	72% collection
2029	300	225.0	165.0	60.0	75% collection

Break-even Analysis:

- Fixed costs: UGX 34.8M/year
- Contribution per digester: UGX 408,000/year
- Break-even: 85 digesters at current efficiency
- At 70% efficiency: 66 digesters

Investment Returns:

- Total investment: USD 25,000
- Cumulative profit by Year 5: UGX 139.2M
- Simple ROI: 150% over 5 years
- IRR: 12% (conservative)

SLIDE 15: IMPACT METRICS

Measured Impact:

SDG	Indicator	Baseline	Current (73 units)	Method	Source
SDG 7 (Energy)	Clean cooking access	0%	100% of members	Survey	Dec 2024, n=68
SDG 13 (Climate)	CO2 reduced	0	131 tonnes/year	Calculation	IPCC factors
SDG 5 (Gender)	Women's time saved	0	1,277 hours/HH/year	Time diary	Sep 2024
SDG 2 (Hunger)	Maize yield	4.3 bags	9.0 bags/acre	Harvest data	Nov 2024
SDG 3 (Health)	Respiratory issues	72%	18% of members	Health survey	Dec 2024
SDG 1 (Poverty)	Income increase	0	UGX 408,000/year	Bio-slurry sales	Tracked

Verification Methods:

- Quarterly household surveys (response rate 85%+)
- Bio-slurry lab testing (BSUL partnership)
- Clinic health records (respiratory cases)
- Harvest measurements (sample farmers)

SLIDE 16: TECHNOLOGY & OPERATIONS

Technical Specifications (BSUL Standards):

Component	Specification	Performance	Verification
Digester type	Fixed dome, 4m ³	20+ year lifespan	BSUL certification
Gas production	0.8-1.2m ³ /day	6-8 hours cooking	User logs
Feed requirement	20kg dung + 20L water	Daily	Training manual
Construction time	9 days	On schedule 89%	Work logs
Commissioning	30-45 days	Gas production starts	Test records
Maintenance	Quarterly checks	87.7% uptime	Service logs

Quality Control (Documented Process):

1. Site assessment checklist (100% completed)
2. Material quality verification (invoices match specs)
3. Construction supervision (daily logs)
4. Pressure testing before handover (all units)
5. 3-month follow-up visit (92% completed)

Capacity Analysis:

- Current: 4-5 installations/month
- With investment: 8-10/month
- Bottleneck: Skilled masons (training 4 more)

SLIDE 17: PARTNERSHIPS

Current Partnership Performance:

Partner	Role	Value Delivered	Evidence/Status (active)
CARE International	Funding, M&E	UGX 213.4M, technical support	Bank transfers, reports
ASHDEN	Recognition, network	Global visibility, UGX 15M	Award certificate
BSUL	Technical standards	Quality assurance, training	MOU, training certs
Local Government	Approval, land	Endorsement letter	Official letter
UNHCR	Refugee data	Settlement statistics	Published reports

Pipeline Partnerships (Under Discussion):

- FAO: Agricultural extension (meeting held Jan 2025)
- Equity Bank: Mobile payments (pilot Q2 2025)
- Carbon developer: Verification support (proposals received)

Partnership Success Metrics:

- Funds mobilized: UGX 228.4M
- Technical support hours: 240 hours
- Media mentions: 12 articles

SLIDE 18: RISK ANALYSIS

Risk Matrix with Mitigation Evidence:

Risk	Current Impact	Mitigation Strategy	Evidence of Success
Collection rate	Extends payback to	Route optimization, GPS	Pilot achieved 65%

(54%)	6 years	tracking, incentives	(Dec 2024)
Loan defaults (46%)	Threatens sustainability	Group guarantees, peer pressure	VSLAs: 95% repayment rate
Water scarcity	20% seasonal drop	Rainwater harvesting	2 tanks installed, testing
Technical failures	12.3% breakdown rate	Quarterly maintenance, spare parts	Improved from 25% to 12.3%
Staff turnover	Knowledge loss	Training documentation, succession plan	Retained 90% for 2 years
Price competition	Margin pressure	Quality differentiation	94% choose us over alternatives

Risk Monitoring:

- Monthly collection efficiency tracking
- Quarterly technical audits
- Semi-annual customer satisfaction surveys

SLIDE 19: FINANCIAL CONTROLS

Financial Controls:

- Separate bank account for revolving fund
- Monthly reconciliation
- Quarterly member audits
- Annual external review planned

Current Financial Position:

Asset/Liability	Amount (UGX M)
Cash in bank	15.4

Receivables	156.8
Inventory	8.2
Member equity	28.0
Grants received	228.4

Reporting Commitment:

- Monthly P&L statements
- Quarterly impact reports
- Annual audited accounts (starting 2025)
- Real-time dashboard (Q3 2025)

SLIDE 20: IMPLEMENTATION MILESTONES

90-Day Quick Wins (With Verification):

Milestone	Target	Measurement	Status
New installations	10 units	GPS coordinates + photos	0/10
Collection improvement	58%	Daily tracking sheets	54%
Commercial MOU	1 signed	Signed document	Draft ready
Carbon baseline	Completed	Report submitted	In progress

Year 1 Quarterly Targets:

Quarter	Installations	Collection Rate	Revenue (UGX M)	Verification
Q1 2025	20	58%	20.5	Monthly reports
Q2 2025	25	60%	24.8	Photo evidence
Q3 2025	30	63%	30.2	GPS tracking
Q4 2025	35	65%	35.5	External verify

Success Criteria:

- 100% milestone documentation
 - 80% on-time delivery
 - Zero fund misuse
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SLIDE 21: SCALE STRATEGY

Phased Growth Plan (Evidence-Based):

Phase 1: Perfect (2025-2026)

- Target: 150 digesters in Kyangwali
- Focus: Achieve 70% collection efficiency
- Evidence: Pilot shows 65% achievable
- Investment: USD 25,000

Phase 2: Expand (2027-2028)

- Target: 250 digesters
- Expansion: Adjacent sub-counties
- Evidence: 438 referral inquiries
- Investment needed: USD 50,000

Phase 3: Replicate (2029+)

- Target: 300+ digesters
- Model: Franchise to other settlements
- Evidence: 13 settlements with similar profile
- Revenue: Franchise fees + carbon credits

Scale Validation:

- Demand: 5,400 eligible households
- Capacity: Can reach 10/month with investment

- Finance: Revolving fund self-sustaining at 200 units

SLIDE 22: EXIT OPTIONS

Investor Exit Strategies:

Option 1: Loan Repayment (Base Case)

Principal: USD 15,000 (60% of investment)

Interest: 5% per annum = USD 3,750

Total return: USD 18,750

Timeline: 5 years

IRR: 12%

Option 2: Carbon Credit Revenue Share

Credits: 540 tonnes CO₂/year at 300 digesters

Price: \$10-15/tonne (conservative)

Annual revenue: \$5,400-8,100

Investor share: 30% for 7 years

Total return: \$11,340-17,010

Option 3: Strategic Sale

Potential buyers: Sistema.bio, SimGas

Valuation method: 2.5x revenue

Year 5 revenue: UGX 225M (\$60,800)

Valuation: \$152,000

Investor share: 16.4% = \$25,000

SLIDE 23: INVESTMENT ASK

Investment Opportunity: USD 25,000

Investment Structure: Amount Required: USD 25,000

Use of Funds:

USE OF FUNDS	AMOUNT (USD)	PERCENTAGE	VERIFICATION METHOD
Revolving fund	15,000	60%	Purchase orders
Collection infrastructure	5000	20%	Asset register
Training and systems	3000	12%	Implementation photos
Working capial	2,000	8%	Bank statements

Investment terms:

- **Structure:** Blended finance preferred: 40% Grant, 60% soft loan at 5% APR)
- **Grace period:** 18 months. **Term:** 5 years. **Security:** Revolving funds receivables
- 60% Concessional loan (5% interest, 18-month grace).

Disbursement schedule:

TRANCHE	AMOUNT	MILESTONE	TIMELINE
1	USD 10,000	Agreement signed	Month 0
2	USD 10,000	50 digesters + 60% collection	Month 8
3	USD 5,000	100 digesters + 65% collection	Month 16

Returns Package:

- Financial: 12% IRR over 5 years
- Social: 750 people with clean energy
- Environmental: 270 tonnes CO2 reduced
- Reputational: First refugee-led biogas scale

Risk Mitigation:

- Milestone-based disbursement
 - Monthly photo reports
 - Quarterly video calls
 - Annual field visit option
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SLIDE 25: CALL TO ACTION**Join Us in Transforming Waste to Wealth****Next Steps:**

- Week 1: Review documentation package
- Week 2: Due diligence video call
- Week 3: Field visit (we cover local costs)
- Week 4: Investment decision
- Week 5: Agreement signing
- Week 6: First disbursement

What You Receive:

- Monthly dashboard (collection rates, new installations)
- Quarterly impact reports (photos, testimonials)
- Annual audited accounts
- Field visit invitation
- First right on carbon credits

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Document Package Available:

- Bank statements
- Sample receipts
- Member testimonials
- GPS coordinates of all digesters
- CARE validation report