



# Viable and Scalable Business Models for Sanitation Entrepreneurs in Rwanda, Evidence from the Isoko y'Ubuzima Project

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## Executive summary

Rwanda's sanitation sector presents significant entrepreneurial opportunities, despite facing challenges around financial viability and scale. Evidence from the Isoko y'Ubuzima project demonstrates that sanitation businesses, including District Sanitation Centers (DSC), fecal sludge management services, and pit emptying operations, can achieve profitability when supported by appropriate business models and access to finance.

The Isoko y'Ubuzima project is a five-year intervention (2021-2026) funded by the U.S. government to expand access to safe, sustainable drinking water and sanitation services in Rwanda. It was implemented by a consortium led by Water for People in partnership with IRC, Vitens Evides International (VEI), CARE International, and African Evangelistic Enterprise (AEE) in ten Districts in Rwanda: Nyagatare, Ngoma, Kayonza, Kirehe, Rwamagana, Nyanza, Ngororero, Ruhango, Nyamagabe, and Nyabihu.

This article synthesizes findings from comprehensive business viability assessments, financial landscape analysis, and capacity building initiatives. The project identified two viable business models: micro-franchising for DSCs and integrated models for pit emptying, transport, and treatment services.

Key success factors include strategic market positioning, diversified revenue streams, cost leadership strategies, access to appropriate financing, and supportive regulatory frameworks. The analysis reveals that while Rwanda's robust financial sector provides opportunities, most financial institutions lack an understanding of the WASH market potential. A holistic approach combining demand generation, technical assistance, and de-risking mechanisms is essential for achieving scale.

The evidence demonstrates significant untapped potential, with a current pipeline of 16 WASH enterprises seeking over RWF 1.5 billion in financing. However, realizing this potential requires addressing fundamental challenges around market awareness, regulatory constraints, and financial product design tailored to sanitation entrepreneurs.

## 1. Introduction

Access to improved sanitation remains a critical development challenge in Rwanda, with significant implications for public health, economic development, and environmental sustainability. While the country has made considerable progress in expanding sanitation coverage, with 86% of households having access to improved sanitation facilities, the quality and sustainability of these services vary considerably.

The Isoko y'Ubuzima project has provided unique insights into the viability and scalability of sanitation entrepreneurship in Rwanda. This five-year initiative focused on improving rural sanitation and handwashing services through market-based approaches, offering valuable lessons for similar contexts across sub-Saharan Africa.

This article synthesizes evidence from multiple assessments conducted under the project, including:

- Business viability analysis conducted across five districts
- Expanding to Commercial Finance for the WASH Sector in Rwanda-Landscape assessment covering 16 commercial banks and micro-finance institutions conducted in 2024.
- Capacity building program for sanitation entrepreneurs conducted between 2022 and 2025
- Pipeline analysis of current WASH financing opportunities from 2025 to 2026

The analysis reveals both significant opportunities and persistent challenges in achieving financial viability and scale for sanitation entrepreneurs in Rwanda's context.

**Research Question:** *What factors and business models support sanitation entrepreneurs to achieve financial viability and scale?*

## 1.1 Sanitation Business Policy Framework and Market Reality in Rwanda

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Rwanda's legal and policy environment is broadly supportive of sanitation business investment. The National Sanitation Policy mandates operational waste management systems at the district level, including DSCs providing a range of sanitation technologies (MININFRA, 2016). The National Strategy of Transformation (NST-2) calls for scaling sanitation access from 92% to 100% by 2029 (GoR, 2024).

Despite this enabling environment, the assessment conducted by the Isoko y'Ubuzima project entitled "Analysis of Business Viability for DSCs, and Fecal Sludge Management (FSM) and designing of the appropriate, synergetic, and inclusive supply chains (2026) identified several persistent gaps including lack of sanitation law, while available regulations do not cover the full value chain, including standards for pit latrine construction, tariffs for fecal sludge services, or standards for treated fecal sludge valorization. This creates uncertainty for private investors and limits the ability of financial institutions to assess risk.

## 1.2 Existing Sanitation supply chain of products and services in rural areas

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The US-funded Isuku Iwacu project (2016-2019) supported the government in the establishment of DSCs to increase access to sanitation and hygiene products and services in rural areas. It ended with six DSCs established in the same Districts of the Isoko y'Ubuzima project, joining 4 others (Kirehe, Ngororero, Nyagatare, and Nyamagabe), totaling 10 DSCs in 10 Districts. The key functions for a DSC are notably: selling water, sanitation, and hygiene products, displaying sanitation technologies to the neighborhood community, and offering a space for training local community members on sanitation and hygiene. A DSC is managed by private entrepreneurs under the public-private-partnership (PPP) agreement signed between the district and the selected assigned entrepreneur, who must be a member of the local Private Sector Federation (PSF). Upstream DSCs, the project has identified manufacturers and suppliers of sanitation and hygiene products to serve as suppliers to the latter, while downstream, the project supported the creation of community sanitation showrooms, trained several local masons in the construction of improved latrines, and house-to-house sales agents.

## 2. Introduction of sanitation businesses

### 2.1 District Sanitation Centers

DSCs serve as one-stop retail hubs for sanitation products and services. Operating as private businesses without external financial support, they comply with national taxation requirements like other businesses. A 2021 financial analysis showed a positive net profit of RWF 2,532,880 across four DSCs. However, managers reported that profitability remained too low to attract serious investment, mainly due to a high-margin, low-volume pricing strategy. The analysis, therefore, recommended micro-franchising and cost leadership as solutions.

### 2.2 Micro-Franchising and Cost Leadership

The project recommends a micro-franchising model as the most appropriate pathway for scaling DSCs. In this model, a DSC operator (the “franchiser” links with sector-level distributors (Community Sanitation showroom) and village-level sales agents (“the franchisees”), training them in technologies/products and marketing through the Decision Intelligence/Quotient Selling technique (DQ Selling), and supplying inventory in exchange for a share of profits at different proportions. This addresses the critical barrier of the long supply chain, where 54% of clients must walk 1-5 km to the nearest sanitation shop.

*Table 1: Projected Income Statement for a DSC Adopting the Micro-Franchising Model*

Line Item (RWF)	2021	2026
<b>Net Sales</b>	18,303,000	45,543,721
<b>Gross Profit</b>	4,458,400	11,093,926
<b>Net Profit</b>	<b>2,532,880</b>	<b>6,302,616</b>

*Source: Isoko y’Ubuzima project reports (2026)*

The model requires a shift to a cost leadership strategy, accepting lower margins per unit to drive volume (economies of scale). The projected five-year growth (20-30% annually) assumes this transition, enabled by decentralized sales and progress-linked financing.

### 2.3 Liquid Waste Collection: High Returns, Structural Barriers

Fecal sludge emptying businesses represent a more mature and financially attractive segment. An analysis of a representative single-truck emptying business reveals a return on investment (ROI) of 28.7% (calculated as net profit divided by the truck investment cost). This rate is highly competitive.

*Table 2: Adjusted Income Statement for a Single-Truck Fecal Emptying Business*

Line Item (RWF)	Amount
<b>Total Income</b>	80,386,760
<b>Net Profit</b>	23,090,309
<b>Return on Investment (ROI)</b>	28.7%

*Source: Isoko y’Ubuzima project reports (2026)*

Despite this strong ROI, the segment faces significant barriers. Poor road infrastructure restricts access for vacuum trucks, and only 7% of surveyed households reported paying a specialized emptier, as most abandon full latrines and dig new pits.

## 2.4 Fecal Sludge Treatment Plants (FSTPs): The Integrated Business Model

Four FSTPs in the project areas were analyzed, revealing multiple revenue streams: dumping fees and fertilizer sales.

### 3. The solution: The Integrated FSM Model

The project strongly endorses the integrated “Model Linking Emptying, Transport, and Treatment.” Vertically integrated operators can capture margin across the value chain and reduce transaction costs. The projected financial statement for this model is compelling.

*Table 3: Projected ROI for an Integrated FSM Business (2021-2026)*

Year	ROI (%)
2021	43.5%
2022	78%
2023	96%
2024	118%
2025	131%
2026	163%

*Source: Isoko y’Ubuzima project reports (2026)*

This trajectory assumes 20-30% annual growth and improved fertilizer production, capitalizing on Rwanda’s fertilizer import dependency. The model requires a shift from a “grant-to-operate” model to a performance-based, commercially oriented operation.

#### 3.1 Unlocking Finance: The Missing Link

The 2026 business viability analysis found that limited access to capital was the most consistently cited barrier to sanitation business growth. Umurenge SACCO (Savings and Credit Cooperatives) managers reported that sanitation businesses had historically been ineligible for loans, citing a lack of formal financial records and uncertain market demand.

#### 3.2 Co-creating WASH Loan Products

In response, Water For People partnered with MicroSave Consulting (MSC) to engage four commercial banks – Bank of Kigali, Equity Bank, BPR Bank, and I&M Bank to co-create a tailored WASH loan product. This process involved training bank staff on the WASH Sector and using human-centered design to develop products that meet the needs of both operators and households.

“The training helped clarify the potential for WASH as a profitable sector, which could lead to more tailored financial products.” – Participant, Financial Institutions Training (MSC, 2025).

#### 4. Pilot Results: Proof of Concept

The Bank of Kigali WASH SME loan product was launched on June 20, 2025. By mid-August 2025, in just eight weeks, the product had achieved measurable progress:

- Four loans had been successfully disbursed, totaling over RWF 408 million.
- Seven additional loan applications, worth a further RWF 608 million, were under negotiation.

Table 4: Disbursed WASH Loan Under the Bank of Kigali Pilot (As of May 2026)

Client Name	Activity	Loan Amount (RWF)
Best Blessed Cleaning Co Ltd	Sale of Hygiene equipment	15,000,000
Sanex Company Ltd	Sanitation	149,113,952
KPC General Services Ltd	General Cleaning	52,000,000
FIFO Ltd	Supply of Hygiene Materials	200,000,000
Nganila Ltd	Sanitation	76,875,000
COOPED Ltd	Sanitation	100,000,000
<b>Total</b>		<b>592,988,952</b>

Source: Bank of Kigali (2026)

This pilot provides clear evidence that sanitation enterprises are creditworthy and that, with appropriately designed products and capacity-building support, financial institutions are willing and able to serve this market. Other initiatives have emerged, such as the Swedish Embassy, which has released a US\$10 million portfolio guarantee with the Bank of Kigali to catalyze SME growth and continue mobilizing social investors. To date, the Bank of Kigali has disbursed over US\$400,000 to WASH companies, with an additional US\$750,000 in loan applications currently in the pipeline.

##### 4.1 Building the capacity of Sanitation Entrepreneurs

The business viability analysis identified business management capacity as a cross-cutting constraint. Most operators lacked formal business management skills, which directly limited their access to finance. In direct response, the Isoko y’Ubuzima project commissioned structured capacity-building training for 25-30 sanitation entrepreneurs.

##### 4.2 Training Design and Impact

The eight-day training, delivered in Kinyarwanda, covered business management, market analysis, and basic accounting. A rigorous pre-test/post-test methodology was used to measure changes in knowledge.

Table 5: Pre-test vs Post-test Score Comparison

Metric	Pre-test	Post-test	Change
Mean	17.78/41	29.71/41	+67%
Median	18/41	31/41	+72%
Score Range	8-27	16-39	

Source: Gasheja & Byiringiro (2023)

The results demonstrate a significant and measurable shift in business and financial literacy. Most importantly, every participant completed a written business plan by the end of the training.

*“On day one, they all said that they carry their business plan in their heads. By day eight, each had a written business plan grounded in financial projections”.* – Dr. Gasheja Faustin, Lead trainer.

This intervention directly bridged the gap between informal entrepreneurs and formal financial institutions.

## 5. Key Factors for Viability and Scale

The Isoko y’Ubuzima experience points to six cross-cutting enabling factors that determine whether sanitation entrepreneurs achieve financial viability and scale.

1. Micro-franchising as a scaling model: A decentralized sales network is essential to overcome the barrier of the long supply chain and reach last-mile customers.
2. Cost leadership strategy: In a low-income market, high volume at lower margins is a more effective strategy than high margins on low volume.
3. Progress-linked and in-kind finance: Innovative financing mechanisms that reduce the risk for lenders (e.g., financing inventory rather than cash) and tie disbursement to performance are critical for overcoming the “pioneer gap”.
4. Integrated FSM Business Models: Vertically integrating emptying, transport, and treatment creates operational efficiencies and captures value across the chain, leading to high projected returns.
5. Targeted capacity building: structured, practical training in business management and accounting transforms informal entrepreneurs into bankable clients.
6. Regulatory enablement: A clear regulatory framework, including published tariffs and quality standards, creates the certainty needed for long-term private investment.

## 6. Conclusions and Recommendations

The Isoko y'Ubuzima project demonstrates that sanitation is a viable and scalable business sector in Rwanda. DSCs, emptying businesses, and FSTPs can all generate positive returns. The capacity-building program proved that human capital constraints are solvable, with a 67% improvement in business literacy. Critically, the WASH loan pilot with commercial banks has provided the ultimate proof of concept: *Sanitation enterprises are creditworthy and financing them is a sound commercial decision.*

Success will ultimately depend on complementary action across three dimensions: enterprise-level capacity building, market-level innovation, and policy-level regulatory enablement.

## 7. Recommendations

*The WASH Sector: Implementing partners:*

- Scale micro-franchising model with structured monitoring of sales volume and profit margins.
- Expand the WASH loan initiative to other commercial banks, building on the successful BK initiative.
- Deliver follow-on capacity building to enable entrepreneurs to maintain records that meet lending standards.

*The Government of Rwanda:*

- Enact a comprehensive sanitation law that establishes standards for pit latrine construction, regulated tariffs for FSM services, and standards for fecal sludge valorization.
- Mandate professional emptying of institutional latrines (school, health facilities) to stimulate market demand.
- Invest in road infrastructure to treatment plants to enable motorized vacuum trucks to access service areas.

**Financial institutions:**

- Adopt the co-created WASH loan products as standard offerings, with longer repayment terms aligned with the cash flows of sanitation enterprises.
- Explore the use of equipment (vacuum trucks) as primary collateral assets to lower the barrier to entry for entrepreneurs.

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