Uganda



Organization: SAMPLE Uganda Aquaculture Association
Location: Kampala, Wakiso, Uganda
Solution: Introducing aquaponics for resilience and empowerment in Uganda
Factsheet Period: First round of UNDP AFCIA funding (18 months); Second round of UNDP AFCIA funding (9 months)



A demonstration guiding the population through the stages of aquaponic activities in Buganda, Uganda @SAMPLE

Food insecurity poses a stubborn challenge in Uganda, where the average person consumes 400 kcal less than their daily intake requirements (World Food Programme, 2024). Smallholder farmers, who rely on rain-fed agriculture, are highly vulnerable to climate change. The Sample Uganda Inspired 'Aquaponics Technology Distribution for Multiple Resiliencies and Empowerment' (ADMIRE) intervention introduces aquaponics—a system that combines fish farming with vegetable cultivation—to improve nutrition and income. Using a cost-effective, modular design made from local materials, the initiative provides communities with aquaponics kits through a lease-to-own model. By promoting sustainable food production, the solution enhances resilience to climate change while making innovative farming more accessible to low-income communities.

Key achievements

- Reached 6,541 direct beneficiaries since the project began (74.6% female) and 24,600 participants in ADMIRE knowledge dissemination workshops
- Adapted 3,781 households that are operating ADMIRE micro-enterprises, including fish and vegetable farming and local fish feed processing
- Developed the ADMIRE Aquaponics Tokenisation Model, a blockchain-enabled lease-to-own financing mechanism that uses NFTs to crowd-fund aquaponics kits for vulnerable farmers while improving transparency and investor participation
- Achieved over 50% increase in income for ADMIRE-supported households, with at least 60% accessing links to various value chains and markets
- Reached over 92,000 farmers and deployed more than 95,000 kits across Uganda
- Secured a major MoU with Wakiso District Local Government under the Parish Development Model (PDM) Loan Facility to distribute 20,000 ADMIRE Aquaponics Kits (valued at $2.4 million total) to smallholder farmers via a lease-to-own model
- Developed a Floating Aquaponics Contract Farm model to ensure continuous food production in flood-affected regions



Adaptation benefits

- Water conservation (aquaponics uses 90% less water than traditional farming)
- Closed-loop system provides controlled environment, protecting crops and fish from extreme weather events
- Strengthened local food security and reduced carbon footprint and risks from external food supply chains

Innovation

- Pioneered a modular 2sqm ADMIRE Aquaponics Kits integrating fish tanks, grow beds, poultry cages and flood tanks
- Implemented a customer-friendly lease-to-own model in partnership with Savings and Credit Cooperatives
- Designed affordable, customized ADMIRE Micro Aquaponics systems that require minimal resources and promotes sustainable local food production and efficient water use, particularly suited for urban environments
- Pioneered the ADMIRE Aquaponics Tokenization Model utilizing blockchain (Solana) and NFTs to crowdfund for vulnerable farmers, creating a transparent, investor-friendly financing mechanism for the lease-to-own kits







Social impact

- Enhances water, food and income security of participating households
- Training programmes equip community members with the skills to manage aquaponic systems and engage in sustainable agricultural practices

Replication potential

- Water-efficient aquaponics systems are suited to urban/peri-urban settings due to adaptable designs and customization based on user needs and budget.

Funding snapshot

- UNDP-AFCIA grant: US$235,000 (initial grant: $125,000; scaling grant: $110,000)

Investability	
Revenue per annum	US$639,000 annual revenue.
Sustaining criteria	The business model is primarily driven by a lease-to-own approach (76%), with additional revenue from outright purchases (15%) and instalment payments alongside philanthropic funding for non-profit activities. This structure enhances accessibility while ensuring long-term financial sustainability.
Financial innovation	Lease-to-own model for aquaponics kits plus additional revenue expected from produce sales.
Expected Return	Revenue is projected to grow at a compound annual growth rate (CAGR) of 27.4%, rising from $545,542 in 2023 to $2.79 million by 2030.

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To read their story, visit UNDP-AFCIA

To watch their video, click here

To contact the initiative, visit Sample Uganda