

SANDS FISH FARM (U) LIMITED

AQUACULTURE ENTERPRISE | UGANDA

Indicative project assessment - not an approved loan or supplier quote

FISH FARM FUNDING PROPOSAL

Prepared 26 October 2026. Preliminary model generated from applicant selections in the SANDS online simulator.

Project name	Sample Catfish Farming Project
Applicant / group	SAMPLE APPLICANT
Project location	Uganda - site to be assessed
Contact	Not provided
Intended financing partner	Prospective lender or investor
Project type	New installation

1. EXECUTIVE SUMMARY

This proposal requests support for a fish farm growing African catfish, with 1 tank(s), each holding 3,142 litres. Under the current screening assumptions, the project starts with approximately 589 fingerlings and aims for 500 kg of fish at harvest over a 180-day production cycle. SANDS may provide system design, supply, installation, inputs, farmer training and technical advice, subject to an approved quotation.

Total initial project budget	UGX 11,851,065
Applicant contribution	UGX 2,000,000
Funding requested	UGX 9,851,065
Expected repeat-season cash surplus	UGX 2,076,235
Estimated equipment-investment payback	4 season(s) / approximately 24 months

2. PROJECT DESIGN & STOCKING

Species	African catfish
Number of tanks	1
Total working culture water	3,142 litres
SANDS standard tank geometry	2.0 m diameter x 1.2 m high
Brimful volume per tank	3,770 litres
Assumed working fill height	1.0 m - verify on site
Fingerlings needed	589
Assumed survival	85.0%

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Estimated fish harvested	500
Average harvest weight	1.00 kg/fish
Planned harvest biomass	500 kg
Cycle duration	180 days

3. SETUP & FIRST-SEASON COSTS

Inclusive SANDS tank package(s)	UGX 5,000,000
Fish supplied (no extra charge)	589 fingerlings
Starter feed bag(s) included	25 kg - bag size unconfirmed
Additional first-season feed	656.3 kg / UGX 1,640,815
Extra backup power allowance	UGX 1,200,000
Electricity estimate	UGX 1,982,880
SANDS-reported shared pump power	500 W per pump
SANDS-reported aerator rating	40 W per aerator
Support and training allowance	UGX 580,000
Water testing and supplies	UGX 370,000
Other operating costs per season	UGX 0 - UNPRICED
Fresh water (first fill + exchange)	UGX 0 - unpriced
Contingency (10%)	UGX 1,077,370
Total first-cycle financing need	UGX 11,851,065

SANDS standard CATFISH package: one tank UGX 5,000,000; for two or more tanks UGX 3,500,000 per tank. Inclusive package covers tanks, shared 50,000 L/h, 500 W pump for up to six tanks, UGX 600,000 filtration per tank, aeration, installation, initial fingerlings including survival allowance, and one starter feed bag PER TANK. Bag weight currently assumed 25 kg (NOT YET CONFIRMED). The package price is not broken down and none of these included items is billed again. New feed supply is modeled at UGX 2,500/kg. Extra backup power UGX 1,200,000, water and support allowances, and feed FCR are subject to verification. Bank/project quotation is conditional on safe 500 kg/tank design.

4. FEED & FILTRATION ENGINEERING SCREEN

Feed conversion ratio (FCR)	1.30
Total feed needed (incl. buffer)	681.3 kg
Already included starter feed	25 kg - assumed

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AQUACULTURE ENTERPRISE | UGANDA

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Peak daily feed (screening)	10 kg/day
Indicative ammonia nitrogen load	400 g TAN/day
Indicative oxygen demand	6 kg O2/day
Total flow allocated to tanks	3,928 litres/hour
Water source	To be confirmed
Reliable daily freshwater supply	UNVERIFIED
Daily source capacity check	Needs site assessment
NEW water exchanged daily	20% of working volume
20% baseline daily exchange	628 litres
50% alternative daily exchange	1,571 litres
50% vs 20% extra exchange/season	169,668 litres
Fresh makeup water per day	628 litres
Wastewater discharge per day	628 litres
Exchange water over full season	113,112 litres
Initial system fill (new installations)	3,142 litres
First-season new water total	116,254 litres
Water cost used	UGX 0/1,000 L - UNPRICED
Shared pumps provisionally costed	1 unit(s)
Reported nominal pump flow	50,000 litres/hour
Water to each tank (planning)	3,928 litres/hour
Nominal bypass/aerating return	46,072 litres/hour

A client may use reliable piped/NWSC water, a borehole, or another clean fresh-water source. Each requires verification of year-round flow, fish-safe water quality, any dechlorination or iron/gas treatment, reserve storage, source pumping cost, and wastewater management. The standard SANDS tank is 2m diameter x 1.2m high (~3,142L working water at assumed 1m fill). The optional 5,000L tank has unconfirmed fabrication costs. Exchange of 20-100% per day means NEW water and equivalent discharged water, not internal pump recirculation. The 50,000L/h, 500W nominal pump is internal circulation. Even 50% exchange does not establish safe 500kg harvest per tank: test solids capture, nitrification, oxygen delivery, CO2 and backup. A zero water tariff is UNPRICED.

5. ESTIMATED INCOME & INVESTMENT RECOVERY

SANDS FISH FARM (U) LIMITED

AQUACULTURE ENTERPRISE | UGANDA

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Proposed sales price	UGX 15,000 per kg
Projected fish sales	UGX 7,500,000
Total first-season cash outlay	UGX 11,851,065
Fish sales at first harvest	UGX 7,500,000
First-season net after ALL setup costs	UGX -4,351,065
Repeat-season cost incl. reserve	UGX 5,423,765
Repeat-season cash result	UGX 2,076,235
Cumulative cash break-even season	4 season(s) / approximately 24 months

SEASON-BY-SEASON CAPITAL RECOVERY

Season 1 (includes original package): sales UGX 7,500,000; total season costs UGX 11,851,065; season net UGX -4,351,065; cumulative net UGX -4,351,065 (startup not yet recovered).

Season 2 (repeat inputs): sales UGX 7,500,000; total season costs UGX 5,423,765; season net UGX 2,076,235; cumulative net UGX -2,274,830 (startup not yet recovered).

Season 3 (repeat inputs): sales UGX 7,500,000; total season costs UGX 5,423,765; season net UGX 2,076,235; cumulative net UGX -198,594 (startup not yet recovered).

Season 4 (repeat inputs): sales UGX 7,500,000; total season costs UGX 5,423,765; season net UGX 2,076,235; cumulative net UGX 1,877,641 (startup recovered).

Season 5 (repeat inputs): sales UGX 7,500,000; total season costs UGX 5,423,765; season net UGX 2,076,235; cumulative net UGX 3,953,876 (startup recovered).

First-season net is fish sales LESS the full tank/equipment package, any separate backup power, additional feed after the bundled starter bag, electricity, testing, support, priced water and contingency. Repeat seasons must buy replacement fingerlings and ALL feed. Payback is reached only when the cumulative cash balance becomes nonnegative. It excludes loan interest/repayments, taxes, major repairs, land, any labour, harvest, transport or other costs not entered, and any water cost not entered. The assumed 1.3 FCR and 500kg/tank output must be validated before lender use.

6. PRICE & PRODUCTION SENSITIVITY

Conservative: 73.9% survival, FCR 1.49, sale price UGX 13,500/kg; harvest 435 kg; revenue UGX 5,872,500; first-season cash net UGX -5,971,002; repeat-season cash surplus UGX 456,298; cumulative recovery 15 season(s) / approximately 89 months.

Expected: 85.0% survival, FCR 1.30, sale price UGX 15,000/kg; harvest 500 kg; revenue UGX 7,500,000; first-season cash net UGX -4,351,065; repeat-season cash surplus UGX 2,076,235; cumulative recovery 4 season(s) / approximately 24 months.

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AQUACULTURE ENTERPRISE | UGANDA

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Optimistic: 91.0% survival, FCR 1.20, sale price UGX 16,500/kg; harvest 500 kg; revenue UGX 8,250,000; first-season cash net UGX -3,451,173; repeat-season cash surplus UGX 2,976,127; cumulative recovery 3 season(s) / approximately 18 months.

7. PROPOSED FUNDING ARRANGEMENT

Project budget requested for consideration	UGX 11,851,065
Applicant contribution	UGX 2,000,000
Requested external financing	UGX 9,851,065

Subject to independent lender assessment, funds may be paid to the approved equipment and service provider in verified stages: equipment supply, installation and testing, stocking, then scheduled input and support delivery. The financial institution alone determines lending eligibility, disbursements, interest rate, security and repayment timing. Seasonal repayment terms must be negotiated in writing.

8. IMPLEMENTATION & MARKET PLAN

Stage A: site survey, confirm water and grid/backup power, obtain supplier quotation and complete permissions. Stage B: install and test tanks, solids filtration, biofiltration and aeration.

Stage C: train the operator and stock healthy fingerlings. Stage D: deliver feed in stages, log water parameters, growth and mortality, and provide support. Stage E: grade, harvest and market fish through agreed buyers, SANDS Market or an independently negotiated off-take agreement.

SANDS may facilitate buyer introductions or make conditional purchase offers. No guaranteed fish purchase, sales price, production yield or credit approval is implied by this document.

9. CONDITIONS, GAPS & VERIFICATION

- Water supply type not selected. Source may be piped, borehole or other reliable clean water; verify at site.
- Available NEW water per day not verified. For the selected exchange, demonstrate at least 629 L/day of reliable source-water capacity plus top-up for cleaning and evaporation.
- Labour, fish harvesting, delivery/marketing, maintenance and other farm expenses have NOT been priced. Add realistic per-cycle costs before treating the payback figures as usable for lending.
- Daily 20%-or-higher fresh water replacement is included as a quantity, but water acquisition/discharge costs are UNPRICED (UGX 0/1,000 L). Add the true water cost or own-source pumping/treatment expense.
- Daily new-water exchange is additional to internal recirculation; approximately the same volume must be drained or discharged to hold the water level constant.
- One nominal 50,000 L/h, 500 W pump costing UGX 1.5m is included in the SANDS catfish package for up to six tanks. Actual flow at head, bypass flow, distribution and oxygenation must be

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AQUACULTURE ENTERPRISE | UGANDA

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verified.

- SANDS catfish package includes the pump, tank, aerator, UGX 600,000 per-tank filtration, piping/install, initial fingerlings, and one starter feed bag per tank. These are not charged twice.
- Starter feed bag weight 25 kg per tank is an UNCONFIRMED example. Confirm actual bag size and fingerling count included in the package.
- Nominal flow not directed to grow-out tanks (46,072 L/h) is assumed routed to the aerating/filter return. This bypass is not guaranteed additional dissolved oxygen and must not short-circuit treatment.
- SANDS reports 300 W for each shared circulation pump and 40 W for each aerator. This estimate assumes one aerator per tank; confirm whether aerators are actually shared, and verify actual power draw. Backup power UGX 1,200,000, support, testing and contingency remain unconfirmed allowances.
- HIGH-INTENSITY DESIGN: 159 kg/m³ expected harvest biomass. This is a proposed output target only. SANDS must verify aeration/oxygen transfer, filtration TAN removal, solids, CO₂ stripping, backup and water-quality monitoring. No stocking approval is implied.
- Catfish project targets 500 fish HARVESTED per standard working-volume tank, with extra fish stocked for mortality at the selected survival rate.
- 1.0 m working water depth is provisional; confirm actual tank water level.
- Fingerling starting weight (25 g), FCR, survival, cycle length, feed allowance and TAN factors still need confirmation.
- First-cycle receipts do not recover installation plus running costs; equipment is a multi-cycle investment.
- SANDS must validate oxygen, solids removal, TAN conversion, CO₂ stripping, water availability, power and actual site costs before stocking.

Applicant's notes: SAMPLE ONLY - figures do not represent an approved farm design, quote or loan.

Required before funding: signed itemised quotation; site, water and electricity assessment; engineering and biosecurity review; verified feed and fingerling supply; project cash-flow schedule; market demand/off-take validation; eligibility and permits; independent credit approval.

SANDS CONTACT

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