Tank Systems for Fish Culturing

Aquaculture Innovation: Growing the Future, Nurturing the Waters

A concrete tank for raising catfish

A tank system for fish culturing is a land-based, intensive aquaculture enclosure. Made from materials like concrete or plastic, it requires a complete feed diet and can operate on various water and air supply systems. It's designed for high-density rearing of species like catfish and tilapia, with regular sorting needed. Success hinges on excellent water quality and year-round availability.

This technology is TAAT1 validated.

8·8 Scaling readiness: idea maturity 8/9; level of use 8/9

Gender assessment 4

Climate impact 7

Problem

- **Resource and Environmental Challenges**: Limited land and water resources, difficulty in maintaining optimal water conditions, and significant environmental footprint of traditional methods.
- **Production and Efficiency Issues**: Limited capacity for high-density rearing, high death rates due to cannibalism, and inefficient feed use leading to slow growth.
- **Market Accessibility**: Increased costs and reduced freshness due to distance from markets

Solution

- **Resource and Control Efficiency**: Less land and water usage with optimal environmental control.
- **Intensive Rearing and Survival**: High-density fish production with minimized cannibalism.
- **Market Proximity and Feed Optimization**: Close to markets with maximized food conversion.
- **Environmental, Biosecurity, and Energy Solutions**: Reduced footprint, disease risk, and energy use.

Cost: $$$ **120 USD**

Premade suspended tanks with a volume of 2000 liter

500 kg

harvest every 9months for a stocking rate of 50 fish per square meter

330 USD

Gross margin after deducting operating costs

WorldFish
Bernadette Fregene

Technology originally documented by

ProPAS

Commodities

Fish

Sustainable Development Goals

2 ZERO HUNGER

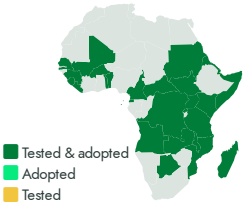
Categories

Production, Equipment, Aquaculture Systems

Best used with

- All Male Tilapia Fingerlings with Greater Yield and Uniformity ›
- Fast Growing and Hybrid African Catfish ›

Tested/adopted in



Where it can be used

This technology can be used in the colored agro-ecological zones.