AGRO-AQUAPONICS CIRCULAR MODEL

Sustainable Aquaponics, Organic Farming and Nutrient Recycling

A focused profile of ECAE's fish, water, composting and crop production cycle.

Registered in Kitale | **Operational Farm** | **Circular Model** | **Ready Products**

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Sustainable Aquaponics and Organic Farming

ECAE uses aquaculture and organic crop production as connected parts of a wider circular model. Fish farming produces food and nutrient streams. Those nutrients, together with compost, manure and BSF frass, support crop production through climate-smart farming practices.

How the Cycle Works

Fish Farming
tilapia production creates food and nutrient-rich water

Fish Waste
nutrients are captured rather than discarded

Organic Composting
plant waste, manure and organic residues are composted

Fertilizer for Crops
compost and frass nourish soil and crops

Nutrient-Rich Irrigation
water reuse supports irrigation where suitable

Farm Produce to Market
vegetables and fish generate market value

Plant Waste Returns
crop residues return to composting and BSF systems

Key Benefits

- Water is used more efficiently through reuse and controlled irrigation options.
- Fish waste becomes a useful nutrient source for crop systems.
- Plant waste and organic residues return to composting and BSF cycles.
- Farmers gain food, fertilizer and income from one integrated setup.
- The model supports training, demonstration and climate-smart replication.