ECAE
Elgon Circular Agro Enterprises

SUSTAINABILITY PROFILE

Turning Waste into Feed, Fertilizer, Food and Farmer Income

A website-ready profile of Elgon Circular Agro Enterprises (ECAE), an operational circular agribusiness based in Kitale, Kenya.

Water Recycling | Waste-to-Feed | Organic Fertilizer | Climate-Smart Farming

Registered and operational in Kitale, Kenya | Founder/Director: Eng. Lawrence K. Kaptoge

ECAE at a Glance

Elgon Circular Agro Enterprises (ECAE) is a registered and operational circular agribusiness with offices and a working farm in Kitale, Kenya. The enterprise integrates crop production, greenhouse horticulture, coffee, tilapia fish farming, improved Kienyeji poultry, livestock, Black Soldier Fly (BSF) farming, composting, organic fertilizer and agro-processing into one climate-smart production model.

ECAE's sustainability model is built on a practical principle: waste from one farm activity becomes a useful input for another. Organic waste is converted into BSF larvae protein and frass fertilizer. Fish, poultry and livestock systems generate nutrient streams. Compost, manure, frass and recycled water support crop production, while crop residues return into the recycling cycle.

Core Sustainability Promise

Turning organic waste into feed, fertilizer, food and farmer income through a closed-loop agricultural system.

Profile Snapshot

Name	Elgon Circular Agro Enterprises (ECAE)
Location	Kitale, Kenya
Status	Registered and already operational
Founder/Director	Eng. Lawrence K. Kaptoge
Approach	Hybrid donor-friendly agribusiness
Slogan	Circular - Climate-Smart - Sustainable - Prosperous

4+
linked sustainability pillars: water reuse, waste-to-feed, nutrient recycling and climate-smart production.

All
listed products are available from the operational farm and integrated enterprise model.

1
closed-loop circular model connecting crops, fish, poultry, BSF and organic fertilizer.

Kitale
the base for demonstration, production, farmer training and partnership growth.

Sustainability in Action

At ECAE, sustainability is not presented as a slogan. It is the operating system of the farm. Each production unit is designed to reduce waste, recover nutrients, lower input pressure and generate value for farmers, markets and partners.

Practical Sustainability Actions

- **Water recycling:** nutrient-rich water from fish systems is reused to support irrigation where technically suitable.
- **Waste-to-feed:** organic waste is converted into BSF larvae protein for poultry and fish feed systems.
- **Organic fertilizer:** compost, manure and BSF frass are used to support soil fertility and crop productivity.
- **Climate-smart farming:** integrated production reduces waste, conserves resources and strengthens resilience.

The Circular Innovation Model

ECAE demonstrates a closed-loop agriculture system where waste from one enterprise becomes the input for another. The model links BSF, poultry, fish, livestock, crops, composting, water reuse and market access into one productive cycle.

Organic waste
farm, crop, market and food waste

BSF larvae
converts waste into protein biomass

Feed
supports fish, poultry and livestock

Manure & fish water
nutrient streams are recovered

Organic fertilizer
compost, frass and manure products

Crop production
vegetables, tomatoes, coffee and seedlings

Market + residues
food sold; residues return to recycling

Why this matters

The circular model lowers pressure on purchased feed and fertilizer, improves nutrient use, reduces organic waste pollution, and creates diversified income streams from crops, fish, poultry, BSF products and organic fertilizer.

Four Sustainability Pillars

ECAE organizes its sustainability work around four practical pillars that can be demonstrated, measured and taught to farmers and partners.

1. Waste-to-Feed Solutions

Organic waste is processed through BSF production. Larvae become a protein-rich input for poultry and fish feed systems, helping reduce dependence on costly external feed sources.

2. Nutrient Recycling

Manure, fish waste, crop residues, BSF frass and compost are captured and returned to the farm system as fertilizer, improving soil fertility and minimizing waste.

3. Water Reuse and Irrigation

Nutrient-rich water from aquaculture can support irrigation through drip or controlled systems where appropriate, improving water efficiency and crop nutrition.

4. Climate-Smart Production

Integrated crops, fish, poultry, livestock, BSF and fertilizer production diversify risk, strengthen resilience and support year-round agribusiness activity.

Farmer Value

- Reduce feed and fertilizer costs by using locally generated inputs.
- Improve crop health through compost, BSF frass and manure-based fertilizers.
- Diversify income through fish, poultry, vegetables, coffee, seedlings and organic fertilizer.
- Turn farm residues and market waste into productive resources.
- Learn practical climate-smart farming through demonstrations and training.

Sustainable Products and Services

All listed products are available from ECAE. They are positioned not just as farm outputs, but as proof of a working circular agribusiness system.

Coffee

Coffee production and seedlings for diversification and long-term farm income.

Tomatoes & Vegetables

Fresh greenhouse and field produce grown through climate-smart practices.

Tilapia Fish

Aquaculture supported by nutrient recycling and water reuse opportunities.

Kienyeji Chicken

Improved poultry production within a circular feed and manure model.

BSF Larvae & Frass

High-protein larvae feed and nutrient-rich frass fertilizer from organic waste.

Training & Demonstration

Farmer training, demonstration visits, consultancy and setup support.

Available service areas: product supply, farmer training, demonstration visits, donor/investor partnerships, circular farm setup support, and market-oriented agribusiness development.

Impact Areas

ECAE is designed to create environmental, economic and social impact while remaining commercially practical. Its strength is that impact is generated through everyday production activity.

Environmental Impact

- Organic waste reduction
- Nutrient recycling
- Soil regeneration
- Water efficiency
- Lower external input pressure

Farmer & Economic Impact

- Reduced production costs
- Diversified income streams
- Marketable products
- Training and replication
- Local enterprise growth

Community & Social Impact

- Food and nutrition security
- Youth and women opportunities
- Green jobs
- School and farmer learning
- Scalable circular model

"What looks like waste can become feed, fertilizer and income when farming systems are properly connected."

Partner with ECAE

ECAE is suitable for donors, investors, development partners, farmer groups, institutions and buyers seeking a practical circular agriculture model with clear products and measurable impact.

Expansion and Partnership Priorities

Scale BSF production

Increase larvae and frass output for feed and fertilizer markets.

Strengthen aquaculture

Improve tilapia systems and nutrient-rich water reuse.

Upgrade horticulture

Expand greenhouse and crop production consistency.

Train farmers

Build a structured demonstration and replication program.

Grow market linkages

Connect farm produce, feed and fertilizer to reliable buyers.

Measure impact

Track waste recycled, costs reduced, farmers trained and incomes improved.

Donor Case

Support ECAE to scale an operational model that turns organic waste into feed, fertilizer and food while training farmers and creating green livelihoods.

Investor Case

ECAE offers diversified revenue streams through crops, coffee, fish, poultry, BSF products, organic fertilizer, training and setup support.

Contact

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