

# EcoCycle Larvae System: Black Soldier Fly Larvae (BSFL) proteins for low cost Fish feeds

BSFL proteins for sustainable local fish and chicken feed production



BSFL composting is a biological method that uses Black Soldier Fly larvae to break down organic waste like food scraps and manure. The process produces nutrient-rich larvae for animal feed and a compost by-product called frass.

This technology is **pre-validated**. 8.9 Scaling readiness: idea maturity 8/9; level of use 9/9

Gender assessment 4

Climate impact 7

### Problem

- Fish and poultry farming in sub-Saharan Africa face inconsistent and unreliable year-round feed supplies.
- The feed prices significantly increase production costs, making it difficult for fish farmers to sustain operations.
- 30-40% of food and organic is wasted, resulting in to negative environmental impacts, such as pollution and resource depletion.

### Solution

- Using BSFL to decompose organic waste provides a sustainable way to waste and reduce environmental harm.
- BSFL technology produces nutrient-rich larvae that can be used as a low-cost feed for fish and poultry.
- Encouraging the adoption of BSFL technology supports a circular economy model that fosters long-term economic stability and environmental protection.

### Key points to design your project

Black Soldier Fly Larvae (BSFL) Composting Technology enables sustainable waste management in sub-Saharan Africa by converting organic waste into affordable, nutrient-rich livestock feed. Implementing this technology involves setting up waste collection systems, BSFL rearing facilities, and marketing feed. with initial costs ranging from 1,000 to 2,400 USD. Key project partners may include waste management organizations and government agencies, and training is essential for effective management of BSFL systems.

**1,000—2,400 USD** Small BSFL composting system

**375—1,040 %** Return on investment

IP Unknown

IITA  
Rousseau Djouaka

Commodities  
Fish

Sustainable Development Goals

Categories  
Pre-production, Inputs, Animal healthcare

- Best used with
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