



EASTERN AFRICA GRAIN COUNCIL

Communique of the EAGC-ICIPE Write Shop to develop financial products for the Insect Based Feed Value Chain in Kenya held on 13th December 2024 at the Convent International Guest House, Nairobi.



| IBF Financing Needs | | | |
|--|--|--|--|
| ASSET FINANCE | WORKING CAPITAL | TRADE FINANCE | PROJECT FINANCE |
| Equipment and Technology Insect rearing equipment Processing machinery Packaging machinery Monitoring systems Greenhouse Structures Storage facilities for raw materials / finished goods. Specialized laboratories Renewable Energy Systems Solar panels Heating /cooling systems Logistics and Transportation | Raw Materials & Supplies Feedstock for insects Consumables like trays, & cleaning supplies Inventory Management Purchase and maintenance of buffer stock for raw materials. Marketing & Distribution Costs Labor Costs Utilities | Export Financing: Pre-shipment loans Post-shipment financing Commodity Financing Purchase of live insect larvae Supply Chain Financing Factoring for receivables Input Financing: Advance payment for bulk procurement of farming materials. | Farm/Market Expansion Projects Establishing large-scale insect farms for mass production Infrastructure Development Building export-certified processing plants for value-added insect products. Sustainability Initiatives: Renewable energy solutions /waste management systems Traceability / supply chain software Research & Development (R&D) |



Context

Recognizing the need for innovative and cost-effective solutions to address food and nutrition insecurity, the Eastern Africa Grain Council (EAGC) has taken significant steps. In collaboration with the International Centre of Insect Physiology and Ecology (ICIPE) and with support from the Rockefeller Foundation, EAGC has been implementing the Waste to Value: Accelerating Economic Viability of Insect-Based Value Chain in East Africa (WAVE-IN) project. This initiative aims to scale up the insect-based farming (IBF) industry. It focuses on creating a sustainable and equitable supply of animal-sourced proteins across Africa. Extensive engagement with industry stakeholders and financial institutions has identified opportunities to finance the insect-based feeds and products value chain. These insights are shaping the development of tailored financial products to attract investment and expand the market for insect-based feeds and products.

To advance these efforts, EAGC and ICIPE hosted a write shop on December 13, 2024. The event took place from 8:00 AM to 4:00 PM at the Convent Guest House in Lavington, Nairobi, Kenya. The objective was to develop financial solutions for the insect-based feeds and products value chain.

Remarks by key speakers:

Mr. Gerald Masila, Executive Director - Eastern Africa Grain Council



Encouraged participants to actively share insights and perspectives for developing financial products to support the insect-based feed and food value chain.

Reminded participants that the collaborative effort was expected to result in innovative financial models that address the unique challenges of the IBF sector, ensuring its growth and sustainability. **Highlighted** the strong link between ICIPE and EAGC, emphasizing their

combined efforts to integrate insect-based feed into the broader agricultural landscape.

Noted that the grain sector, which underpins feed manufacturing, is a vital component of this integration. **Stressed** EAGC's pivotal role in regional trade facilitation through the G-Soko market linkage platform. **Added** that the platform not only supports trade in grains but also serves as a valuable tool for connecting producers, processors, and buyers in the IBF value chain. **Further added** that the anticipated outcome is improved market access for IBF producers and a more resilient supply chain.

Concluded by emphasizing the concept of smart markets of the future. **Explained** that such markets are designed to promote circular economies, reduce waste, and enhance resource efficiency, aligning perfectly with the principles of insect-based farming. **Encouraged** to explore investment opportunities within the IBF value chain, with a focus on sustainability, economic viability, and environmental impact.

Mr. Michael Lwoyelo, Chairman - Black Soldier Fly Association of Kenya

In his remarks he:

Stated that the association was founded by EAGC, ICIPE, and the Rockefeller Foundation.

Highlighted that it is a farmer-led organization focused on black soldier fly production, with EAGC and ICIPE on the Executive Committee.

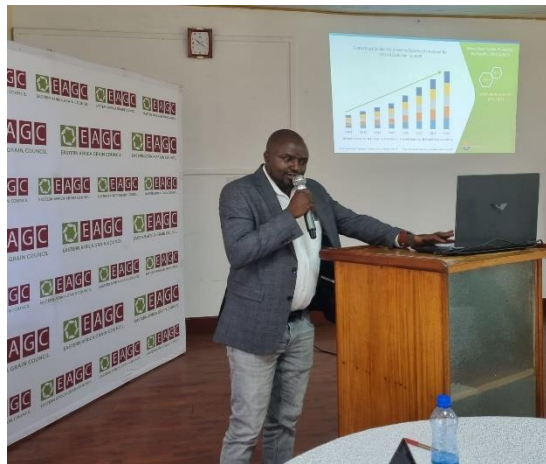
Noted that the committee is collaborating with the Netherlands Food Partnerships to formalize the association.



Emphasized that farmers with access to waste or seed can easily distribute larvae, making smallholder farmers key targets for financing to ensure sustainability.

Dr. Shaphan Chia, Research Scientist - International Centre of Insect Physiology and Ecology

On behalf of Dr. Chrysantus Tanga, Dr. Chia made a presentation on **Advances in Insect Farming for Feed, Food, Fertilizer, Fuel and Biotherapeutics**. In his presentation he:



Underscored the importance of circular bio economy that comes to challenge the linear bioeconomy.

Emphasized that in IBF there is no waste. This is because from the larvae of the black soldier fly, we can get feed, oil and fuel. Moreover, the residue that comes from the insects is also beneficial.

Reiterated that insects are a resource and **Emphasized** that insects have very high nutritional profiles thus the need to scale the farming.

Highlighted that East Africa leads in Insect-Based Feed (IBF) and Food production, with over 450

extension officers trained.

Noted that IBF has boosted livestock productivity, improving gut health, disease control, and immune response, while reducing antibiotic use.

Emphasized that insect meals can lower greenhouse gas emissions by reducing methane from livestock and benefiting crops through frass fertilizer.

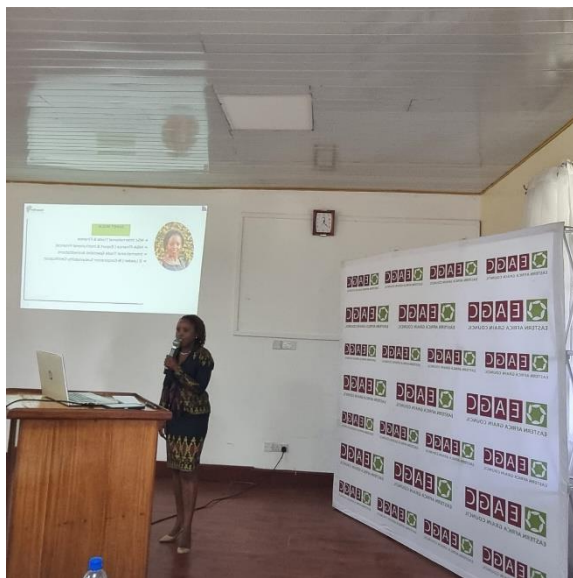
Explained that frass fertilizer improves soil nitrogen, suppresses nematodes, and increases yields in beans, potatoes, and bananas.

Highlighted the need for insect-based enterprise growth through capacity building, partnerships, and incentives

Comments from plenary on the presentation on advances in insect farming for feed, food, fertilizer, fuel and biotherapeutics

1. A disconnect was noted on how value is perceived in cost per ton vis a vis the increase in yield.
 - It was noted that farmers are likely to make more money by buying or using premium feeds with more protein content. Therefore, a need to shift the feed manufacturing mindset to accommodate BSF was emphasized.
 - Strategic citing the BSF farm to prevent incurring extra costs was encouraged.
2. For IBF to become an industry, it is important to create price points for return on investment.
 - Partnerships were welcomed to increase awareness on BSF
 - Value of the premium feeds would need to be amplified with case examples such as the case of pigs which , upon consumption of BSF feed meal, get ready for the market 2-3 months prior.

Presentation on framework and models for financing insect-based farming and products value chain by Janet Mulu, ImpactDev:



Highlighted that the write shop aimed to assess BSF opportunities and challenges, identify financial solutions, and document them.

Emphasized that IBF can address key UN SDGs, including poverty eradication, zero hunger, gender equality, clean water, decent work, innovation, responsible production, and climate action.

Noted that a major challenge in IBF financing is the lack of knowledge in the sector, requiring financial institutions to be more involved.

Stressed the need for collaboration between financial institutions, IBF stakeholders, and policymakers to overcome barriers and create innovative financing solutions for the industry.

Breakout sessions and the outcomes of the discussions

The participants were grouped in two groups each tackling questions on the challenges faced by IBF SMES in accessing finance and recommendations for possible solutions to address issues noted.

Barriers identified from the breakout groups included:

- Limited product awareness
- Poor record keeping
- Lack of technical expertise

- Unsuitable pricing models
- Lack of collateral
- Internal bank policies against start-up financing, Inconsistency in production due to biotic and abiotic factors
- The informal nature of most businesses.

Proposed solutions to address the identified barriers included:

- Capacity building: Emphasis on improving financial literacy, record keeping, and management for IBF producers and financiers.
- Blended financing: Identified as the most effective approach to support the IBF value chain.
- Risk mitigation: Proposed involving guarantors like the African Guarantee Bank to help financial institutions derisk tailored products for IBF.
- Data sharing: Highlighted the need for information sharing among IBF producers to enhance access to financing.
- Business formalization: Encouraged producers to separate personal finances from business entities and formalize operations.
- Industry readiness: Feed Manufacturers Association confirmed that the animal feed industry is ready to adopt IBF products, provided supply is consistent.
- Scaling production: Emphasized the need for addressing production scale issues to sustain supply and meet financing requirements.
- Stakeholder collaboration: Financial institution indicated their readiness to provide IBF financing if stakeholders collaborate effectively
- Common frameworks for IBF financing were discussed as follows:

Common Frameworks for IBF Financing



Blended Finance Framework

Combines grants, loans, and equity to de-risk investments in insect-based industries, leveraging concessional capital to attract private investors and scale operations.

Impact Investment Framework

Focuses on aligning financing with measurable social and environmental benefits, such as waste reduction, food security, and rural livelihoods, while ensuring economic returns.

Circular Economy Framework

Centers on waste-to-value principles, where insects play a role in recycling organic waste into high-value products like protein, oils & fertilizers, promoting sustainable and closed-loop systems.

Value Chain Development Framework

Maps the entire insect industry ecosystem, identifying key stakeholders, value-adding processes, and financing gaps to enable targeted investment and ecosystem growth.

Recommendations and next steps

1. **Incubator program** - establish mentorship and training programs for IBF start-ups, focusing on investor readiness, funding access, and innovation to drive scalability.
2. **Capacity building** - provide training on record keeping, management, and sector-specific skills for all stakeholders involved.
3. **Business Development Services (BDS)** -engage experts to offer guidance on structuring models, optimizing systems, and co-creating products with stakeholders to enhance productivity and profitability.
4. **Trade and Market Access Program** - create market linkages to connect IBF producers with buyers, fostering partnerships and ensuring sustainable demand.
5. **Formalization and awareness** - promote formalization of business operations and create awareness about the IBF sector to attract more investment and partnerships.
6. **ESG & Sustainability integration** - develop tailored programs to incorporate ESG principles into IBF businesses, meeting compliance and sustainability goals.
7. **Export readiness program** - support IBF businesses in navigating global markets for alternative protein, animal feed, and organic fertilizers.
8. **Publication** on Financing and Supporting the Insect-Based Feeds (IBF) Value Chain