



AFRICA  
FERTILIZER &  
SOIL HEALTH  
SUMMIT **24**

*"Listen to the Soil"*



**FiBL**

## Agroecological and organic farming systems in Africa – transformation towards system resilience and sustainable production and consumption



Date: May 8, 2024, 1400 -1530 Hours

Venue: KICC, Lawns Tent 4 Tent

Moderator: Ms. Venancia Wambua (Biovision Africa Trust- BvAT)



Time	Discussion area	Responsibility
2.00 - 2.10pm	<ul style="list-style-type: none"> <li>Arrival of Participants/Registration</li> </ul>	EOAI/KCOA Secretariat
2.10 - 2.30pm	<b>Presentation 1:</b> <ul style="list-style-type: none"> <li>Assessment of Agroecology and Ecological Organic Agriculture Initiatives in Africa</li> </ul>	Dr. David Amudavi - BvAT
2.30 - 2.50pm	<b>Presentation 2:</b> <ul style="list-style-type: none"> <li>Key Findings of the Long-term Farming Systems Comparison in the Tropics, Kenya,</li> </ul>	Dr. Milka Kiboi - FiBL
2.50 - 3.30pm	<b>Panel discussion:</b> <ol style="list-style-type: none"> <li>Dr. David Amudavi - BvAT</li> <li>Dr. Milka Kiboi - FiBL</li> <li>Dr. Edward Karanja - icipe</li> <li>Prof Felix Ng'etich - JOOST</li> <li>Dr. Anne Muriuki - KALRO</li> <li>Rosinah Mbenya - PELUM Kenya</li> </ol>	Ms. Venancia Wambua - BvAT

### END OF SESSION

## Background

Despite various phases of technological advancements in food systems since the green revolution, current food systems in Africa are unable to meet the growing needs of both society and the environment. This situation is exacerbated by the effects of climatic change, loss of biodiversity, land degradation and loss of soil fertility, geopolitical tensions among others.

To sustainably improve the health and prosperity of people in Africa while conserving the environment more productive and resilient systems are needed. Promotion of agroecology (AE), organic agriculture (OA) and ecological organic agriculture (EOA) proffer potential for responsible production and consumption.

This calls for promotion of ecologically sound strategies and practices among diverse stakeholders in production, processing, marketing, and policy making. Scientific evidence confirms that a transformation of food system is achievable through innovations that optimize system interactions.

The long-term system comparison trials (<https://systems-comparison.fibl.org>) conducted in the tropics, Kenya included, have demonstrated that AE and OA farming systems significantly increase crop productivity, soil health and economic resilience compared to conventional systems. The positive and impactful transformation can be

achieved by implementing best farming management practices in multi-stakeholder collaborations that enhance adoption of the practices.

### Objective:

The objective of this session will be to demonstrate the potential of agroecology (AE), organic agriculture (OA) and ecological organic agriculture (EOA) systems to contribute to improved food and nutrition security, land stability, soil health and agronomic performance under multi-stakeholder collaborations and partnerships.

This will be shown through three major interventions that have been conducted in Africa, namely:

### 1. Assessment of Agroecology and Ecological Organic Agriculture Initiatives in Africa.

The study covering past and current studies show that Agroecology and Ecological Organic Agriculture are pathways to increased productivity, socioeconomic benefits, biodiversity, sustainability, and resilience of food systems. Building on proven practices including sustainable agriculture, agroforestry, conservation agriculture, biointensive agriculture, regenerative agriculture, family farming, etc. lead to higher productivity, enhanced resilience (such as drought resistant crop varieties), protecting soil fertility, contributing to nutrition and food security and scalable at relatively lower costs. Assessments of agroecology and conventional systems are needed to inform decisions on various aspects of agroecology including investments, policy, and strategy alignment with national and regional aspirations.

### 2. Agroecology and organic farming systems augment crop productivity and soil fertility in the tropics.

Adverse climate change effects and declining soil fertility (soil organic carbon) caused by limited application of soil input and negative nutrient mining have led to low food productivity in Africa. Various management practices under agroecology and organic farming systems e.g. crop diversification, crop rotation, application of high-quality organic inputs etc., enhance crop productivity and organic carbon buildup that leads to improved soil health.

After several years of continuous implementation of two long-term systems comparison trials, organic farming system showed equal or exceeding crop productivity: food crops e.g. potatoes and cash crop (French beans) compared to conventional farming systems (FiBL,2024). Soil quality significantly increased under organic farming systems compared to the conventional system (von Arb et al., 2020). Thus, AE/OA systems approaches and soil replenishment using organic inputs ensures farming system sustainability in the long term.

### Key Presentations:

1. Assessment of the Landscape of Agroecology and Ecological Organic Agriculture Initiatives in Africa by Dr. David Amudavi, ED, BvAT.
2. Key Findings of the Long-term Farming Systems Comparison in the Tropics, Kenya, by Milka Kiboi, FiBL

**Panel Discussion:**

All panelists are knowledge multipliers, change-makers, scientists, activists and active in KHEA & EOA-I.

1. Dr. David Amudavi (BvAT)
2. Dr. Milka Kiboi (FiBL)
3. Dr Edward Karanja (ICIPEs)
4. Prof Felix Ng'etich (JOOST)
5. Dr. Anne Muriuki (KALRO)
6. Rosinah Mbenya (PELUM Kenya)

Each panelist to be given 5 minutes for intervention.

**Schedule:**

~ 40 min: 2 keynote presentations setting the scene for the need of a transitions towards agro ecological and organic farming systems in Africa, the scientific evidence and putting it in broader contexts.

~ 50 min: Moderated panel discussion with a variety of stakeholders ranging from research, private sector, governmental representatives, farmers organizations, civil society, and development agencies.

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