



Tropentag, September 11-13, 2024, hybrid conference

“Exploring opportunities ...
for managing natural resources and a better life for all”

Cultivating change with agroecology and organic agriculture in the tropics - bridging science and policy

LAUREN DIETEMANN¹, BEATE HUBER², LAURA KEMPER¹

¹*Research Institute of Organic Agriculture, Dept. of Extension, Training and Communication, Switzerland*

²*Research Inst. of Organic Agriculture (FiBL), International Cooperation, Switzerland*

Abstract

Despite the technological advances in food systems since the green revolution, current global agricultural and food systems are not meeting the world's needs. Although food availability has increased substantially, the number of people suffering from hunger and malnutrition has remained steady in the last 40 years, coupled with a surge in obesity and diet-related diseases. Additionally, current food systems have contributed to extensive deterioration of land, water, and ecosystems; depletion of biodiversity; and enduring livelihood pressures for farmers. Nowhere are such challenges more evident than in the tropics, where disproportionate food insecurity, malnutrition and impacts of climate change pose significant threats. This myriad of challenges in current food production systems is projected to worsen if we continue with “business as usual” due to the increasing impacts of climate change, demographic shifts, political instability, conflicts, and heightened demands on natural resources. To address these pressing issues, it is imperative to explore alternative approaches that show promise in transforming food systems and achieving the Sustainable Development Goals. In this context, agroecology and organic (AE/O) agriculture present promising alternatives supported by a growing body of evidence. AE/O systems show promise in achieving yields and incomes that are on par with conventional. In fact, AE/O systems have been shown to improve household income and livelihood resilience compared to conventional in the tropics. The hidden costs of the current global food system amount to around 10 percent of global GDP. The transition to AE/O systems offers a pathway to lower costs to the public by increasing climate adaptation and mitigation, increasing resilience to external shocks, improving food security and nutrition and lowering exposure to harmful pesticides. Thus, investments towards AE/O are not only a moral imperative but an economic win. Despite notable progress, a transition towards sustainable food systems requires increased attention, understanding, and political action. Transition to AE/O systems requires, for example, long-term funding models that prioritise a holistic approach, and value chain development that supports fair pricing and strengthens the connection between consumers and farmers, and improved access to farmers' organisations, capacity development and market access.

Keywords: Climate change adaptation, food security, human health, organic agriculture