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“Towards shifting paradigms in agriculture
for a healthy and sustainable future”

Mainstreaming Insects for Food and Feed in Sub-saharan Africa: Implication for Circular Economy and Green Growth

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Abstract

Due to deteriorating natural resources and the threats of climate change, the supply of protein for food and feed is not on par with the growing demand for protein in sub-Saharan Africa. The region's fast-growing cities also produce tonnes of biowastes per annum but with little capability to manage these wastes. To address these problems, producing and processing insects for food and feed is emerging as a novel new economic activity. It can enhance environmental cleanup by recycling biowaste and reducing greenhouse gas emissions. It can increase the supply of proteins for animals and humans at cheaper societal costs and contribute to crop productivity by increasing the supply of quality biofertilisers. It can further create new jobs, increase food security and income, and contribute to sustainable economic growth and development while safeguarding the environment. Despite the benefits of insect production in strengthening circular economy and green growth, the sector remains in its infancy and receiving inadequate support from donors, policy-makers, and researchers in sub-Saharan Africa. Our objective in this paper is to provide a unique perspective to stakeholders by reviewing experiences of sub-Saharan Africa in insect production, and the intent of producers and consumers to use edible insects. We will first critically evaluate the policy environment under which researchers and the private sector produce and process edible insects for food and feed. Second, we draw policy lessons by reviewing existing production technologies and practices to ensure food and feed safety and increase productivity and the environmental and socioeconomic benefits of the insect production sector. We aim to stimulate further research and debate on consumers' intent to use insects and their willingness to pay for insects for food and feed, environmental sustainability and greenhouse gas emissions, employment creation, nutrition security, and the value chain of insect products. We believe the study will contribute towards “shifting paradigms in agriculture for a healthy and sustainable future” in line with the Tropentag 2021 theme.

Keywords: Biofertilisers, circular economy, edible insects, food and feed protein, food security, green growth, insect production and processing, job creation

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