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Beyond income: Cost-saving livelihoods and women's empowerment in black soldier fly farming, evidence from Zambia

Adela Lescakova[1], Jana Mazancová[1], Joyce Mufungwe[2]

[1] *Czech University of Life Sciences Prague, Fac. of Tropical AgriSciences, Czech Republic*
[2] *University of Zambia, School of Agricultural Sciences, Zambia*

Abstract

Women are the main contributors to agricultural production in Zambia, yet persistent gender inequalities limit their access to resources, decision-making, and income opportunities. Black soldier fly (BSF) farming has emerged as a sustainable innovation to address the persistent high prices for animal feed and fertilisers, but its benefits for women's empowerment remain underexplored. This study, therefore, examines the potential of small-scale BSF farming for women's empowerment in Zambia through Kabeer's lenses (resources, agency, achievements). Data were collected through semi-structured interviews during on-site visits at all five existing BSF farms with owners and farm workers (in total, n=7), and with six key informants involved in BSF farming in Lusaka and Central Province. Thematic analysis revealed three themes shaping women's empowerment in BSF farming: (i) access to BSF resources, (ii) socio-cultural and gender constraints, both identified as constraining, and (iii) economic viability and livelihood improvements, as a supporting theme. Findings indicate that from the economic perspective, BSF farming mainly supports women through cost savings on animal feed and fertiliser, rather than through stable income from the sale of BSFL-derived feed. While women gained access to skills, community recognition, and decision-making, their empowerment was constrained by inadequate training, limited access to capital and equipment, weak market access, and restrictive gender norms. These constraints challenge policies that treat economic engagement alone as sufficient for empowerment. Overall, BSF farming offers conditional opportunities for women's empowerment. To reach the full potential, it requires coordinated institutional support, improved access to training and capital, and efforts to address gender barriers within the BSF value chain.

Keywords: Agricultural value chains, circular agriculture, gender equality, rural livelihoods, smallholder farming, sub-Saharan Africa

Contact Address: Adela Lescakova, Czech University of Life Sciences Prague, Fac. of Tropical AgriSciences, Prague 6 - Suchdol, Czech Republic, e-mail: xlesa010@studenti.czu.cz