# ISeBAF
# Insect Service and Biodiversity in Agroecological Farming

**ABSTRACT**

The ISeBAF project examined biodiversity and pest dynamics in Tanzanian cucurbit agroecosystems, comparing agroecological and conventional family farming across contrasting landscapes. Field surveys, genetic and microbiome analyses, and socio-economic assessments documented bee and flower fly communities in cucurbit crops, assessed fruit fly infestations, and evaluated agroecological performance for smallholders. Results indicate that agroecology can improve pollinator diversity and profitability under favorable landscape conditions, while fruit fly control requires adaptive IPM strategies. Microbiome studies revealed species-specific patterns linked to environment and management, supporting integrated approaches that combine agroecology, pest management, and economic viability for family farming.

**Keywords:** Agroecology; Pollinator networks; Syrphidae; Apoidea; Tephritidae; Microbiome; Tanzania; Smallholder farming; Genetic diversity.