

Tropentag, September 15-17, 2021, hybrid conference

"Towards shifting paradigms in agriculture for a healthy and sustainable future"

## The Effect of Covid-19 on Welfare of Baobab Collectors in Rural Malawi

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## Abstract

Restriction measures of the Covid-19 Pandemic have disrupted food systems and detrimentally affected welfare of smallholder farmers in Sub-Saharan Africa (SSA). Underutilised Plant Species (UPS) are non-trivial in ensuring stability of food systems in SSA. In this context, this study assessed the impact of the Covid-19 Pandemic on business activities, income and food security of baobab collectors in Malawi, using a primary dataset from 864 baobab collectors collected in February-March 2021. Descriptive statistics and bivariate probit model were applied in the empirical analysis. We find many changes in activities of the baobab collectors due to covid-19. Collectors reported changes in the quantity collected, transportation options and costs (including labour costs). Further, they highlighted changes in the way meetings were conducted with buyers, training officers, and avoiding movements within and outside their villages. We also find selling price differences in different selling outlets in the 2020 season compared to the average of the last two season (2018/19), with prices in the 2020 season being lower for both baobab whole fruit and pulp. With regards to income shock and food security, more than half of the respondents (54%) experienced income shocks due to covid-19 and at least 12% reported worsened food security during the pandemic as compared to the situation pre-covid. Results from the bivariate probit regression show a strong correlation between collectors who suffered income shocks and food insecurity. Collectors who sold larger amounts of baobab were less likely to experience income shocks and worsened food security during covid-19 pandemic. Male baobab collectors had a higher probability to experience food insecurity and income shocks. Interestingly, access to credit increased collectors' probability of suffering from income shock and food insecurity. To navigate these challenges most collectors adjusted their dietary patterns (59%) and reduced non-food expenditure (63%). These findings indicate that the on-going strategies for steering the recovery of food systems post covid-19 should go beyond the conventional food systems by making targeted polices for UPS chains as well.

Keywords: Malawi, Baobab, bivariate Probit model, covid-19, Food Security, income shocks

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