



Tropentag, September 20-22, 2023, hybrid conference  
“Competing pathways for equitable food systems transformation:  
Trade-offs and synergies”

## Food literacy and nutrition status in rural and urban Tanzania: Exploration of the nexus

VICTORIA KARIATHI<sup>1</sup>, HADIJAH MBWANA<sup>1</sup>, CONSTANCE RYBAK<sup>2</sup>, CONSTANCE RYBAK<sup>3</sup>, SAFINESS  
MSOLLO<sup>1</sup>, JOHN MSUYA<sup>1</sup>

<sup>1</sup>*Sokoine University of Agriculture, Dept. of Human Nutrition and Consumer Sciences, Tanzania*

<sup>2</sup>*Humboldt-Universität zu Berlin, Thaer-Institute - Div. Urban Plant Ecophysiology, Germany*

<sup>3</sup>*Leibniz Centre for Agric. Landscape Res. (ZALF), Inst. of Socio-Economics, Germany*

### Abstract

Increased rates of malnutrition are influenced by changes in food environment and requires practical knowledge and skills to intervene. Food literacy (FL) is important to provide skills and abilities required for health relationship between individuals and food environment hence supporting dietary resilience overtime. It is necessary to understand FL status of the study population to develop resilient nutrition interventions. The aim of this study was to examine the food literacy levels and nutrition status in adult population residing in rural and urban Tanzania. A cross-sectional study involving 697 adults (474 female and 223 males) sampled from rural and urban Tanzania was conducted. A structured questionnaire composed of 23 FL items was used to assess food literacy of target groups. Five-point Likert scale with very easy to very difficult choices was used. The weight and height measurements were taken for estimation of Body Mass Index (BMI). Confirmatory factor analysis was done to test if FL items explain FL construct. Internal consistency of FL was estimated using Cronbach's Alpha at significance level of 0.05. FL score of 0–50 and levels of FL in terms of inadequate, problematic, sufficient and excellent was established. FL levels were linked with gender, residence, education and BMI levels (underweight, normal weight, overweight and obesity) according to WHO standards. Mean factor loading was 0.61 and each item showed strong ability to explain FL. All FL items had excellent internal consistency ranges from 0.92 to 0.93 Cronbach's Alpha to measure FL. The study showed significant association in FL levels across gender, residence, education level and BMI. Problematic level of FL was higher (42.2%) among other levels. Excellent FL was higher in urban (16.7%) than rural (6.2%). Males and females showed similar pattern in FL levels. 75% of participants with higher degrees had excellent level of FL while those with low education fall on problematic and inadequate FL. Despite variation in FL levels, nutrition status showed similar patterns in the study population. Problematic level of FL was higher among the adults. There is a need to design nutrition educational intervention aiming at improving food literacy among the study population.

**Keywords:** Adults, food environment, food literacy, nutrition status, rural, Tanzania, urban