



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

Exploring the determinants of a healthy food nutrition environment in rural households

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Abstract

Developing countries have recently undergone food environment transformations characterised by increased consumption of unhealthy ultra-processed foods, resulting in an increased incidence of the double burden of malnutrition. Despite the ongoing dietary transitions, the food environment has been researched mostly focused on developed countries. The food environment encompasses the availability, affordability, convenience, and desirability of various foods and is the node between broader food systems and individual or household diets. It is thus imperative to study and evaluate determinants of a healthy food environment and formulate policies that influence food environments for healthy diets, particularly in rural households in low and middle-income countries. Our research aims to characterise the rural food environment, analyse factors that influence the food environment, and explore policy interventions that could transform the food environment to promote the uptake of nutrient-dense diets in rural households in low-income countries. We use the Lindi Region of Tanzania as a case study and qualitative methods to define the food environment based on food accessibility and availability measures including diversity and proximity. We developed an open-ended questionnaire for data collection based on the socioecological model of dietary behaviour and conducted seven focus group discussions made of 10 participants (n=70), identified through a purposive sampling technique. We also conducted four expert interviews with the District Nutritional and Agricultural officers. The data was then transcribed, coded, and analysed through framework analysis using the MAXQDA® qualitative data analysis tool. Our results reveal that proximity to healthy food, seasonality, specific to fruits and vegetables, physical and economic accessibility, and availability of healthy food items determine consumer choices. Additionally, at the individual level, cost, convenience, availability, and sociocultural norms determine household dietary patterns. Therefore, for rural households, food nutrition education, production diversification, infrastructure development, and post-harvest processing and conservation techniques are touted as the most appropriate policy instruments that would ensure a healthy food environment and sustainable food security.

Keywords: Dietary patterns, food environment, nutrient-dense