



Tropentag, September 17-19, 2018, Ghent

“Global food security and food safety:
The role of universities”

Dietary Diversity and Consumption of Foods from Different Food Groups among Small Holder Women Farmers in Kenya, Malawi and Uganda

M. GRACIA GLAS¹, LYDIAH WASWA², ANNA RÖHLIG¹, ERNST-AUGUST NUPPENAU³, MICHAEL KRAWINKEL⁴, IRMGARD JORDAN¹

¹Justus-Liebig University Giessen, Cent. for Intern. Dev. and Environm. Res., Germany

²Egerton University, Department of Human Nutrition, Kenya

³Justus-Liebig University Giessen, Inst. of Agric. Policy and Market Res., Germany

⁴Justus-Liebig University Giessen, Inst. of Nutritional Science, Germany

Abstract

Inadequate dietary intake among women of reproductive age remains a challenge in some countries of sub-Saharan Africa. This study compared the dietary diversity and consumption of foods from different groups among women in three African countries.

Cross-sectional agriculture-nutrition baseline surveys were conducted in Teso sub-county (Kenya), Kapchorwa District (Uganda) and Lilongwe District (Malawi) between May - November 2016, targeting 1263 farm households with children aged under five years. All three study regions relied on small holder maize farming. Semi-structured questionnaires were used to assess demographic and socio-economic characteristics. A Minimum Dietary Diversity Score for Women (MDD-W, max 10 groups) was calculated based on a 24h-recall. Anthropometric measurements were taken to calculate body mass index (BMI).

Mean (SD) BMI was similar in all three countries (Kenya: $23 \text{ kg m}^{-2} \pm 4$; Malawi: $23 \text{ kg m}^{-2} \pm 3$; Uganda: $23 \text{ kg m}^{-2} \pm 4$). Mean number of food groups consumed differed significantly between the countries 4.2 ± 1.2 (Kenya), 3.9 ± 1.4 (Malawi), 4.3 ± 1.2 (Uganda), ($p \leq 0.05$). The proportion of women who achieved MDD-W in Uganda, Kenya and Malawi were 44.5 %, 41.2 % and 33.5 %, respectively. “Grains, white tubers and plantain” was the most consumed food group (Kenya: 100%; Malawi: 93%; Uganda: 100 %). There were great differences in the proportion of women who consumed foods from other food groups. While the least consumed food group in Kenya was nuts and seeds (6 %), eggs were least consumed by women in Uganda (5 %) and Malawi (<1 %). Only one in 10 women in Kenya (11 %) and Uganda (9 %) consumed vitamin A rich fruits and vegetables in contrast to 34 % in Malawi. Animal source food consumption was twice to three times higher in Kenya compared to Malawi and Uganda (Kenya: 64 %, Malawi: 28 %, Uganda: 21 %).

The low proportion of women who achieved MDD-W indicates a high risk for micronutrient deficiencies in all three regions. Region specific agriculture and nutrition interventions are needed to improve the availability and consumption of the different non-staple foods.

The study was funded by the BLE with support from the BMEL.

Keywords: Dietary diversity, food security, hidden hunger, nutrition