



How weight, value and energy of food points you in different directions

The dynamics of household food consumption in Nigeria

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Introduction

Rapid population growth, urbanization and changes in macroeconomic conditions have impact on food consumption. Given the cultural, socioeconomic and agroecological variation in Nigeria diets differ across geographies and regional diets might have changed heterogeneously over time. The main objective of this work is to provide a clear insight into spatial and temporal patterns of food and nutrition security consumption.

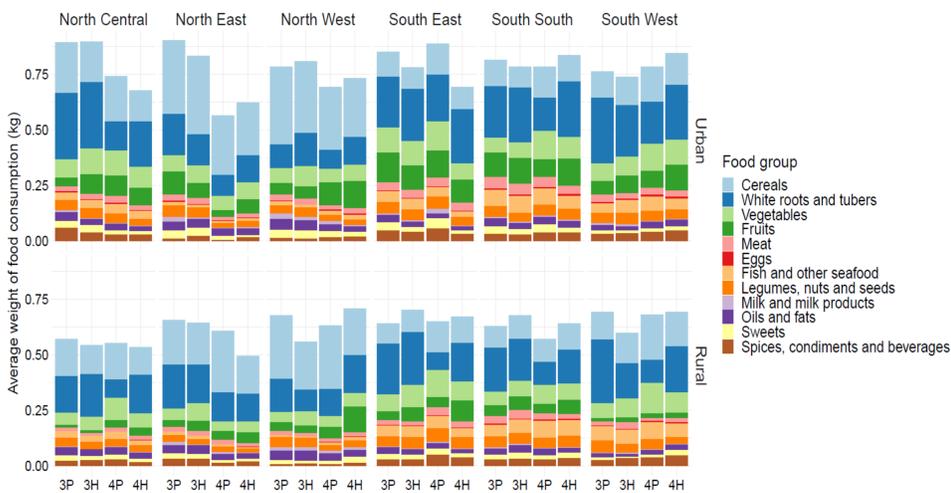


Figure 1. Average weight of food consumption per AFE per day for urban and rural households in the zones, during the wave 3 and wave 4, post-planting and post-harvest period

Methods and approach

We analysed the temporal and spatial dynamics in food and nutrition security using two rounds of the General Household Survey data (2015/16 and 2018/19). We analyse food consumption and the spatial patterns in inequalities in kilocalorie, fat and protein intakes at different geographical scales. Due to the diverse nature of diets, we capture the patterns in food consumption per Adult Female (AFE) equivalent per day (weight and value), intakes of calories and several macro- and micronutrients per AFE per day, and dietary diversity. At zone level, we analysed inequalities in calorie, fat and protein intake using the Foster-Greer-Thorbecke prevalence of deficiency (FGT_0) and severity indices (FGT_2) where we replace the poverty line by the Estimated Average Requirements (EARs).

Results

We found a significant spatial variation in the change of food consumption (weight and value) and intake of calories and macro- and micronutrients between the years. In the North East zone, food consumption measured by weight decreased (figure 1), possibly due to the armed conflicts in this zone. Conversely, in the South West zone food consumption in weight increased after recovery of the devaluation of the naira in 2016. This recovery of the exchange rate, also might explain the strong decline in the value of consumption in particular for urban households in the zones South East and South South, indicating food nominal prices declined compared to other zones (figure 2).

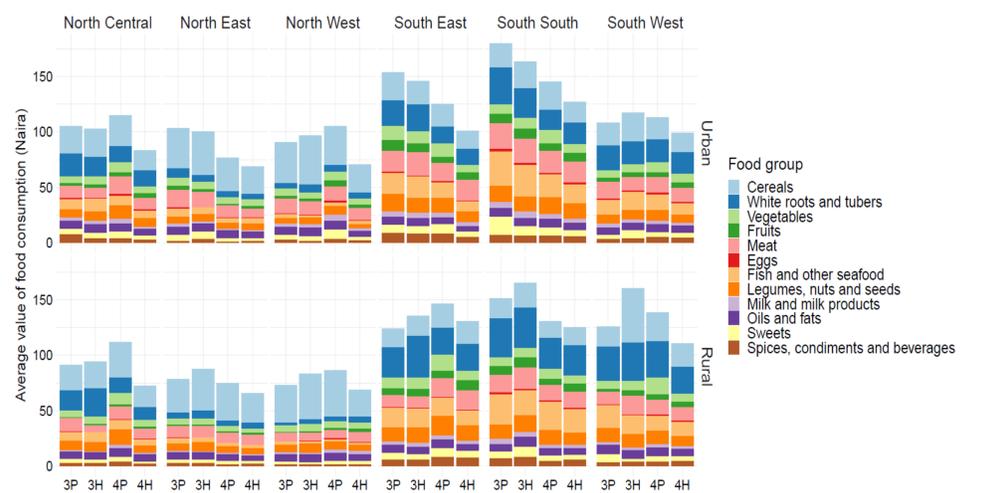


Figure 2. Average value of food consumption per AFE per day for urban and rural households in the zones, during the wave 3 and wave 4, post-planting and post-harvest period

While urban households consume more food than rural household in weight and spend more on food the composition of diets is remarkably similar. The composition of diets differs much across zones and the differences are stable over time. Remarkably, FGT metrics for the prevalence of energy deficiency (FGT_0) and severity of energy consumption gap (FGT_2) provide additional insight (figure 3). For example, in South West the share of households with energy deficiencies is the highest although the diets seems more diverse compared to other zones.

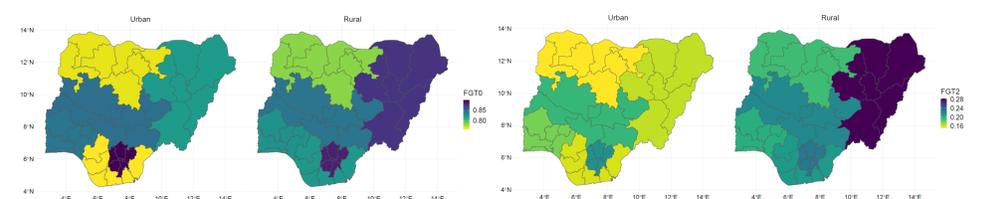


Figure 3. FGT_0 (left) and FGT_2 (right) for daily energy intake (kcal/AFE/day) for urban and rural households for the post-harvest period during the survey round 2018/2019

Conclusions

Our statistical analysis showed a high variation in the spatio-temporal dynamics of food consumption, diet composition and nutritional status in Nigerian households. The temporal differences across zones and inverse development of value of consumption and weight of consumption over time, in especially the southern zones, shows that a more traditional method by only analysing value of consumption does not tell the complex story of household food consumption. Observed differences in economic and political developments might be an explanation for this variation in food security developments. The food and nutrition security indicators for Nigeria showed large heterogeneity across the geographical zones. This heterogeneity exists due to spatial differences in production systems, the degree of access to markets and cultural differences which need to be considered when stimulating food security in Nigeria. This would be the next step of our research.