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"Can agroecological farming feed the world? Farmers' and academia's views"

## Seasonality, food safety and dietary diversity in urban Ghana Makafui Dzudzor<sup>1</sup>, Nicolas Gerber<sup>2</sup>

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## Abstract

Urban households depend on food markets for majority of their food needs and the number of urban dwellers is growing rapidly in developing countries. However, urban food markets are significantly dependent on domestic food production and supply chains in most developing countries. Thus, urban food markets are prone to risks of weather seasonality. In Ghana, food production is mainly rainfall dependent. Seasonality does not only affect household food accessibility, availability, utilisation and stability, but potentially also household food safety through interactions with hygiene/sanitation and the (open) market place and the household. Using a two-round panel household data, fixed effects Poisson and Correlated Random Effects (CRE) Probit models, we estimate the effect of seasonality on urban household dietary diversity, food expenditure and food safety. Household data was collected from communities in three major cities in the southern, middle and northern parts of Ghana. Same households were surveyed in both rounds and there were about 600 households in each round. Our results show that although HDDS and food expenditure per capita was lower and higher respectively in the dry (harvest) season, we did not find the effect of seasonality on HDDS and food expenditure per capita to be statistically significant among sampled urban households. The end of the harvest season is generally characterised by higher food availability and lower food prices of mostly cereals and starchy staples. The dry season does not coincide with the availability of fresh fruits and green leafy vegetables which are relatively more expensive during this period. The results also show that, the incidence of diarrhoea/vomiting as a measure of household food safety is higher in the dry season. The higher incidence of diarrhoea/vomiting in the dry season may be linked to the change in the WASH behaviour of households potentially because of inconsistent water supply to households especially in the dry season. Wealthier households recorded lower incidence of diarrhoea/vomiting. We recommend to consider seasonality of urban food consumption in agriculture policy and in particular in value chain management, considering the potential cultural preferences for seasonal diets in order to improve urban food and nutrition security.

Keywords: Dietary diversity, food safety, open markets, seasonality, urban

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