

## Kisumu Food and Nutrition Security The urban local food plate: trends and recommendations

### Introduction

As other cities in Africa, Kisumu is growing rapidly with 390, 164 people in 2009 to 461, 539 in 2015. Urban growth gives rise to problems of food and nutrition insecurity. Moreover, globalization and migration change the urban food plate. As a consequence, non-communicable diseases and obesity become more prevalent. At the same time, the agricultural potential of the region makes Kisumu a city highly suitable for providing food and nutrition security to its citizens. But are policymakers, business community and developers sufficiently aware of this potential?

This policy brief identifies the challenges to achieving food and nutrition security for all, including the urban poor. Based on primary research done in 2016 and 2017, the 'Women Food Entrepreneurs' international research project unravels this problem and highlights women's critical role in the urban food chain and in safeguarding nutritious diets within households. A number of recommendations aimed at increasing self-sufficiency and food and nutrition security especially among the urban poor in Kisumu are given.

### The problem of population growth and under nutrition in Kenya

The population in African is expected to quadruple between 2015 and 2100 (UNDP, 2017). In 2018, Kenya is not considered a densely populated country, holding the 140th place worldwide, but this rate will double by 2050 (see Figure 1) (World Population Review, 2017).

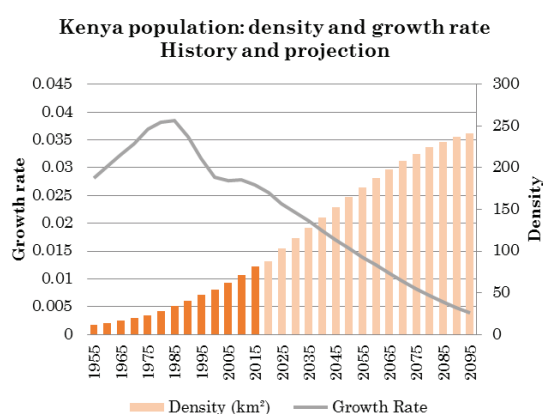


Figure 1: Kenya population  
Source: World Population Review, 2017

Kisumu city is considered among the largest urban areas in Kenya (UN-Habitat, 2015). Urban population in Kisumu county almost doubled between 2009 and 2017 while rural population decreased by 13% (see Table 1) (CIDP, 2013).

**Table 1. Kisumu county population**

	Total	urban	rural*
2009	968,909	296,316	672,593
2012 (p)	1,031,485	478,974	552,511
2017 (p)	1,145,747	562,204	583,543
Growth rate	0.183	0.897	-0.132

\*Population estimates: rural and urban boundaries are not clearly defined

Source: CIDP, 2013

Besides the fast population growth in Africa, undernourishment is also jeopardizing people's health. Between 2013 and 2015, the share of undernourished people increased in sub-Saharan Africa and, in 2016, the largest undernourishment rate prevailed in East African countries (FAO, 2017). In Kenya, seasonal food insecurity and urban population growth cause malnutrition among the poor. At the same time, obesity due to changing urban diets and lack of fresh foods is also on the rise. With almost 50% of the whole land area used for agricultural practices in the country, opportunities for (peri) urban agriculture exist (FAO, 2014).

For the Government of Kenya (GoK), food security and nutrition is a health priority to be enhanced through agriculture policies (see for example, the National Food and Nutrition Security Policy (2011), the Economic Recovery Strategy for Wealth and the Agriculture Sector Development Strategy (ASDS, 2010-2020)). Similarly, Kisumu City management pursues local food security through targeting vulnerable groups in city slums in the urban and peri-urban agriculture project (UPAP) to foster urban gardening, horticulture, sack and kitchen gardening.

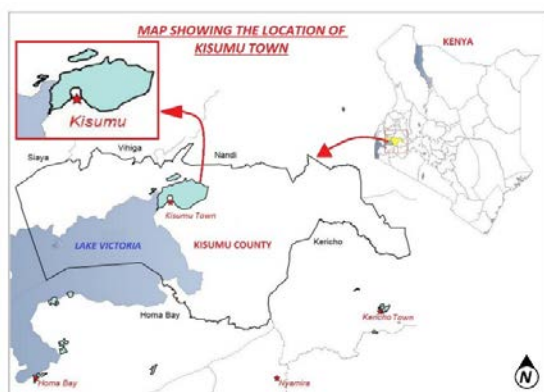


Figure 2: Kisumu location  
Source: WFE, 2017

## An overview of agriculture in Kisumu

Kisumu is located near Lake Victoria (see Figure 2). Alongside the lake shore intensive agriculture is practised (CIDP, 2013). The land in the urban gardens are proven to be relatively fertile (Jonkman, 2017, unpublished work).

Nearly half of the urban population in Kisumu is engaged in agribusiness: farming (13%), fishmonger (10%), cooked food vendor (10%), and vegetable vendors (22%) (WFE, 2017). In Kisumu city, women food entrepreneurs being mostly survivals, organize themselves in groups to optimize collaboration on the land and share social and economic capital. They are not growth-oriented due to multiple gender-related socio-economic, cultural, and political barriers and constraints.

**First, restricted access to arable land and financial resources.** Other priorities, such as clothing, housing improvements and schooling compete for consumption expenditures. Therefore, an increase in income does not necessarily lead to buying healthier food stuff. Occasionally, lack of resources is translated into hardly any food, limited variety and amount of food or non-desirable food choices (WFE, 2017).

Second, there is risk of frequent field crop losses either due to theft, common flooding, and crop raiding by **hippos**. **The hippos also trample and destroy fishing nets set along the lakeshores.** **Third, lack of modern farming tools and technology and relatively small farm sizes** result into labour intensive farming, low productivity, fresh food going to waste and low added value. Fourth, even when people acknowledge the importance of consuming foodstuff in proper conditions, structural restrictions such as a lack of time or access to good quality water, **limit the possibilities to get nutritious food and food hygiene.**

Low hygiene standards include contaminated irrigation water usage for irrigation, food washing and poor food handling. Furthermore, inappropriate food preparation practices (e.g. frying) are reducing food nutritional value. Fifth, in the slum **crop diversification is not recognized** as an important practice in agriculture neither for soil quality nor for nutrition diversity.

Some intercropping is done on small scale for plant protection and additional food sources, but most of the crops are grown for both commercial and subsistence use (61 out of 120 farmers reported this fact). Kale and maize crops represent the biggest proportion of crops grown (23% and 18% respectively) in Kisumu City slums. Both crops are consumed by most inhabitants. They are ranked, by more than 15% of respondents, as the most valued crops (above 1.1 thousand Kenya Shillings per crop harvested) (see Table 2). This confirms that farmers focus on producing highly demanded and valued crops that provide a constant flow of income. Urban agriculture is aimed more at **income generation than nutrition security goals**.

Table 2. Kisumu crops: consumption, value and usage

Food / Type of Crop		Most consumed	Most valued (=> 1 000 KES)	Commercial and consumption purposes
		a	b	c
Carbohydrates	Maize (Ugali)	100%	23%	18%
	Rice	63%	2%	2%
Vegetables	Cowpeas	49%	15%	15%
	Kale	82%	15%	23%

Source: Baseline survey report - WFE, 2017

Notes: a) % of the most consumed carbohydrates and vegetable among all interviewees

(N=120); b) % of the crops ranked as most valued (1000 KES or more) among farmers (N=85);

c) % of crops used for consumption and commercial purposes (N=61)

## Food consumption, preferences and perceptions in Kisumu

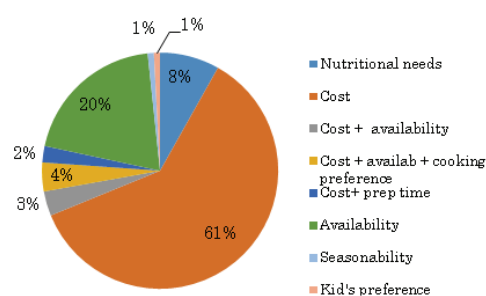
Food consumption, agricultural practices and preferences are connected. The produce that is available, affordable or culturally considered good as a diet, is also preferred and grown.

### Food consumption and factors affecting preferences

The usual and most popular local diet consists of 'ugali' (ground cereal meal) accompanied by leafy vegetables especially kale (*Sukuma wiki*). According to Loo (2017), the typical plate in Nyalenda provides carbohydrates, minerals and a little protein (p. 47). However, in order to provide the body with enough energy and repair elements to maintain a good health, it is necessary to consume a **combination of carbohydrates, proteins, fats, vitamins, minerals and water**.

The absence of some of these elements negatively impacts the health of the urban farmers and their families. Also in their localities people base their food selection mostly on the **cost and availability** (see Figure 3). For instance, fish is consumed because it is affordable while kale and 'ugali' consumption is encouraged by both the availability and affordability.

Figure 3: Factors affecting food preferences, Source: WFE, 2017



Regarding carbohydrates, **‘ugali’ and rice are extensively consumed** (see Table 2). “Ugali” is consumed year-round while rice consumption is not consistent. With regard to vegetables, **most of the households eat kale** (82%), cowpeas leaves (49%) and black nightshade (43%). A local variety of kale is largely grown by the Nyalenda farmers because they prefer it. Kale is easily grown and can be frequently harvested, meaning that it is available during most of the year (Loo, 2017, p. 43). Even though meat is reported as non-affordable food, the accessibility to fish especially ‘omena’ (76%) and Nile perch (49%) in a relatively high frequency, is evident in Kisumu, this is due to their low cost (see Table 3).

**Table 3. Factors affecting food consumption**

Type of food		Nutritional needs	Cost	Availability	Cooking preferences	other factors
Carbohydrates	Rice	8%	33%	38%	4%	17%
	Ugali	11%	69%	12%	0%	9%
	Maize	0%	100%	0%	0%	0%
Vegetables	Cowpeas	11%	67%	22%	0%	0%
	Kales	2%	63%	26%	7%	2%
Meat	Nile perch	8%	54%	33%	0%	4%
	Omena	7%	53%	30%	0%	10%

Source: Baseline survey report - WFE, 2017

#### Perceptions and culture

Perceptions play a crucial role in diet patterns. In her study, Loo (2017) identified two factors influencing diet in Kisumu; culture and the adoption of external practices. First, in the *Luo culture* (the dominant group in Kisumu city), people believe that quantities are more important than quality. Although this might have been an appropriate customary diet in the old days when everyone participated in manual labour, the modern lifestyle and diet do not lend itself well to the consumption of large quantities of food. Secondly, due to globalization and migration, people are **changing traditional food preparation methods to frying** and are acquiring **prepared food commodities**.



*Omena, small fish, drying in the sun*  
Source: Loo, 2017

These practices, on one hand, **reduce the quality** of the food and contribute to **increase in obesity, malnutrition and non-communicable diseases**. The saying “being thin is not a positive thing” is an example of these perceptions.

## The role of women in agriculture and nutrition

Women food producers play an important role in agriculture: they constitute 75% of Kenya’s agricultural labour force and 80% of Kenya’s farmers are women (Akimana, 2015). Women should not be overlooked by urban policymakers and the agribusiness private sector. On one hand, women play an active role in agriculture as farmers and as crucial influencers on nutrition by selecting food plates in the household. However, women face multiple **gender-related constraints** when it comes to food and nutrition security. The constraints include;

- **Productivity level** in agriculture is low, seasonal and sometimes of lower quality due to contaminated irrigation water. Women lack starting capital to invest or improve the food production business.
- **Little voice and negotiation power** in deciding on household expenditures and setting a price for their produce in the market or with traders.
- **Time constraints due to multiple tasks**. The workload is a high burden and also limits their mobility. Due to **time and poverty**, they prefer less time-consuming food commodities and cooking methods.



*The precarious irrigation method*  
Source: Loo, 2017

- **Health barriers** is another barrier for many women who are most vulnerable. For example, the prevalence of HIV/AIDS impacts women with immune deficiency diseases. Sometimes these women are unable to undertake agricultural activities, thus negatively affecting food production level, income and increasing dependency.

The Kisumu County Integrated Development Plan (CIDP) mentions the need for women’s empowerment, but is yet to take any concrete actions or policies apart from the 30% gender rule for tenders. Therefore, more can be done to adapt policies and market instruments to the priorities and needs of women food entrepreneurs.

## Policy recommendations

The findings of this study leads to the following policy recommendations:

- 1) Raise Kisumu County's awareness on gender related barriers and constraints faced by women survival entrepreneurs. They need practical and strategic policies and instruments to overcome these barriers and constraints that differ from other micro entrepreneurs.
- 2) Enhance the Kisumu County Integrated Development Plan (2013-2017) in order to improve urban farmers' adaptation to climate change through the Evergreen Agriculture or sustainable agricultural practices that integrate trees with food crops and livestock for smallholder farmers.
- 3) Increase the capacity of Civil Society Organizations (CSO's) to address the lack of household knowledge on nutritious food; and to provide support for improving financial decisions on agricultural activities.
- 4) Alleviate the heavy burdens on female urban farmers through stimulation of household, community and local arrangements as well as enhancing childcare provision through community or municipal services.
- 5) Increase self-sufficiency in terms of production and consumption through effective implementation of the county kitchen gardening strategy. This strategy is the available option to engage people in balance diets, providing access to fresh fruits and vegetables.

## Acknowledgements

This Policy Brief was written by **Paola Gutiérrez, (UvA student intern)** based on UvA MSc IDS Thesis by Kimberly Loo.

This policy brief and reports of the study are available to stakeholders at **knowledge4food.net/research-project**.

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