CHAPTER 12

"We Eat Every Day, but I'm Perpetually Hungry": Interrogating Food System Transformation and (Forced) Dietary Changes in Tamale, Ghana

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Introduction

Food system transformation and dietary changes are occurring ubiquitously across much of Africa's urban areas (Battersby, 2017; Reardon, 2015). While many factors interact to influence these changes, urbanization remains one of the active influencers of the continent's food systems transformation. High concentrations of people in urban areas increase demand for food, a situation that induces commercial inflows of food in

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urban settings (Worku et al., 2017). There is evidence that rapid urbanization in countries with low human development, which describes many African countries, has a negative impact on urban food security in these countries (Szabo, 2016). Given high demand for food in urban areas, and the corresponding systems of supply, food prices tend to be higher in urban areas, making food less accessible to segments of the urban population as access to food in urban settings is largely a function of income (Bush, 2010; Worku et al., 2017). The result is that poor urban households spend a disproportionate share of their income on food, which does not even guarantee them adequate consumption levels (Worku et al., 2017). It thus remains a concern in rapidly urbanizing cities in the Global South that the food security situation of poor and vulnerable groups could be impacted negatively by the affordability, stability and safety of food (Wenban-Smith et al., 2016).

The importance of food preference cannot be underestimated in the food security equation. Attention to food preference and the social elements of food and nutrition extend the definition of food security beyond the material and biological realms to include a suite of culturally embedded, context-relevant subjective well-being under the rubric of the human well-being approach to food security (CFS, 2017; Noack & Pouw, 2015). Pursuant to this line of argument, Anna-Lisa Noack and Nicky Pouw (2015, p. 172) contend that "food and nutrition security can only be achieved when 'sufficient culturally adapted food' is available and accessible to a household or community to meet physiological and social needs." Food is "linked to identity and social relationships and the subjective and emotional components of food and eating should not be ignored" (CFS, 2017, p. 78). The statement quoted in the title, "We eat every day, but I'm perpetually hungry," was taken from an interview with an elderly man in Tamale, a secondary city in Ghana. It captures the paradox of hunger amidst plenty that characterizes urban food insecurity across Africa, while highlighting the subjective well-being of an urban resident. The respondent's explanation of what he meant—that he does not get to eat the foods he loves stuck with me and almost always springs to mind when someone suggests dissatisfaction with what they have to eat.

In seeking to understand the effect of food system changes on urban Ghanaians, this chapter draws together two areas of focus: the issue of food preference, and to what extent the food available today is subjectively satisfying; and food utilization, in terms of food procurement

decisions and preparation. In doing so, the chapter takes a qualitative approach to describe the experiences of people in the fast-changing food environment, especially the elderly. The intention is to characterize subjective well-being from the viewpoint of the city's population as it relates to food preference and utilization. Thus, the chapter is distinguished from a public health-centred technical analysis, which employs a suite of measures to analyze food utilization and well-being, measures that are often external to the people involved. The chapter argues that the social function of food is as important as its biological function as far as food preference and utilization are concerned (De Groote & Kimenju, 2012; Quisumbing, 2013; Webb et al., 2006).

Drivers of Food System Changes in Urban Africa

The literature on urban food system change in Africa has outlined many factors interacting variously to influence the changes occurring in African cities and towns. These factors range from urbanization related to spatial development, globalization and supermarket expansion. Globalization has intensified the diffusion and spread of food products and cuisines, and the latter has arguably transcended cultures as never before. To varying degrees across Africa, globalization has reshaped urban food systems through the integration of African urban markets with transnational food distribution channels (Battersby, 2017). The increasing availability of foreign foods in local markets alters household food choices, and thus food consumption patterns.

One sign of globalization's effect on urban food system transformation in Africa is the spread of international fast-food outlets (Tsrah et al., 2020). Backed by international capital investment and product promotion, fast-food chains convey an image of urban life as more "comfortable" than rural life in terms of greater diversity and convenience in food choices. These images bolster the long-held rural view that urban life is luxurious. Public messaging, coupled with rising urban incomes, means that in many African cities these fast foods are redefining taste, consumption habits and group identity formation. Writing for the *New York Times* on the evolution of the fast-food industry in Ghana, Dionne Searcey and Matt Richtel (2017) noted how the "finger lickin' good" slogan of KFC attracted a young man with a well-paying job in Ghana's booming oil sector:

> He has an apartment, a car, a smartphone and a long-distance girlfriend he met on a dating website. So he had reasons and the means to celebrate his 27th birthday in late July. His boss and co-workers joined him for an evening of laughter and selfies, lingering over dinner at his favorite restaurant: KFC. [He] first learned about the fried chicken chain on Facebook. The "finger lickin' good" slogan caught his attention and it has lived up to expectations. 'The food is just …' he said, raising his fingertips to his mouth and smacking his lips. 'When you taste it you feel good.' (Searcey & Richtel, 2017, paras. 1 and 2)

Another sign of globalization's impact on Africa's urban food system transformation is the expansion of food retail through supermarket chains. Supermarkets are found in most major African cities, after decades of rapid expansion (Crush & Frayne, 2011; Reardon et al., 2007; Smit, 2016; Weatherspoon & Reardon, 2003). South African supermarket giants Shoprite and Game and Indian-owned Melcom, MaxMart and Citydia are some of the popular supermarket chains operating in Ghana. Supermarkets can create formal sector employment, offer new food choices, and offer lower prices on some items due to competition and economies of scale, which are some of the advantages raised in arguments for policies promoting supermarket expansion (Andam et al., 2018; Demmler et al., 2018; Rischke et al., 2015). On the other hand, supermarkets promote the sale and consumption of processed foods, which is associated with high risk of food-related non-communicable diseases (Demmler et al., 2017; Rischke et al., 2015). It is also argued that supermarkets do not necessarily align with the food consumption strategies of the poor segments of Africa's urban populations (Peyton et al., 2015). Some of these food sourcing strategies include accessing food on credit in times of financial crisis, making food items available in smaller quantities commensurate with the incomes of poor households, and favourable working hours (Skinner, 2016; Skinner & Haysom, 2016). For example, while many formal supermarkets' business hours end around 7 or 8 p.m., the neighbourhood and home-based informal food outlets may operate until later in the evening, allowing more hours of access to food in poor neighbourhoods.

Perhaps it is these food sourcing strategies, based on social networks, that make traditional local markets the preferred option for Ghanaian urbanites (Oltmans, 2013). Regardless of the inconclusive verdict on

whether supermarkets offer more positives than negatives to urban food security, the phenomenon of supermarketization is having a significant effect on food system transformation and dietary transition in African urban settings. In the long run, people remain food insecure in spite of food being widely available in the market because they simply cannot afford the types of food they prefer to eat. These drivers of urban food system transformation are discussed later in terms of how they interact to affect people's subjective well-being in Tamale.

Methods of Investigation and Data Sources

The chapter is based on a qualitative approach and the original empirical data comes largely from in-depth interviews with six people in Tamale, combined with secondary literature and personal observations. The interviews were conducted in February 2020. Four respondents were purposively selected because they were knowledgeable about food system changes and dietary changes in Tamale. Some were participants in past studies and others were selected based on snowball sampling. Two female respondents were selected through convenience sampling to share their experiences of household food purchases, food preparation and consumption practices. This sample was deemed adequate for the purpose when saturation was reached after the fourth respondent. The personal observations included unstructured observing of what people eat, and informal interaction and noting of what people say about what they eat. This activity spanned a longer period than the interviews (both before and after), to allow ample time to observe how people interacted with their food environment.

The interviews were recorded and transcribed to facilitate analysis of the responses. The data was coded manually and thematically on the historical dimension of food system changes, the nature of food system changes, and changing gender roles within the transforming food system. It is important to note that the historical accounts of food system changes in Tamale depended solely on the recollection of the elderly respondents, as there is a lack of documented evidence to corroborate these. The results of the interviews and personal observations are presented in the sections below.

The Decline in the Traditional Food System

The historical perspective of food system change in Tamale is told through recollections of elderly interviewees and the documented history of Dagbon, a traditional area controlled by the Dagbamba people, of which Tamale is the largest settlement. According to accounts by the elderly respondents, a noticeable, recallable event that ushered in changes in the food system of Dagbon was a drought-induced famine in the late 1940s. Until that famine, the food system of Dagbon and Tamale was anchored on native foods, including sorghum, millet, yam, beans, bambara beans (*Vigna subterranean*) and other foods harvested from the wild. These were made into diverse dishes using native spices and condiments, including *dawadawa*, *nili* (melon seeds), *bungu* (sesame), pepper and *kantong (condiment made from baobab and kapok seeds)*. However, the roots of the centuries-old indigenous food system were shaken in the late 1940s when the long drought and locust invasion triggered serious famine in the Dagbon area. This incident is referred to in the history of Dagbon as *kanchaglanchu yuuni*, meaning "the year of white maize," referring to the new crop that was introduced in the area as part of food aid from international sources.

The people found it difficult to process the maize into food, as their rudimentary food-processing technology at the time—stone mills that were used to grind cereals—did not allow for turning the maize into their staple porridge meal. The traditional porridge meal was known in the Dagbanli language as *saɣim*, which is popularly known in the broader Ghanaian context as TZ, based on the Hausa word *tuo zaafi*. As a result, people employed different methods to turn the maize into food, including roasting the grains and eating them like roasted bambara beans. The introduction of hammer mills made grinding easier, but it did not make consumption of maize-meal popular. People resented preparing *saɣim* with maize because they felt it did not taste like the sorghum or millet *saɣim* they were used to. But by the late 1980s and 1990s, maize had become the mainstay for *saɣim* in Dagbon and Tamale. This outcome owed much to the severe drought and consequent famine that ravaged Ghana and West Africa, with food aid, again, coming to the rescue. This local perspective positions famine as the trigger of food system and consumption changes in the area.

These natural events were coupled with a policy focus on agricultural intensification. Present policy focus and investment promote maize

production under the aegis of a new green revolution in northern Ghana (Nyantakyi-Frimpong & Bezner Kerr, 2015; Vercillo et al., 2020). For example, a collaborative project known as the Savannah Zone Agricultural Productivity Improvement Project, between the Government of Ghana and the African Development Bank, is being implemented in northern Ghana. Maize and soya are the priority crops during the first phase of the project, and rice may be the next crop added (personal communication with an official at regional directorate of Ministry of Food and Agriculture, May 18, 2021, Tamale). This indicates that the policy orientation regarding modernization or commercialization of agriculture in northern Ghana favours these "non-native" crops.

Maize production in Ghana was vigorously pursued under the Sasakawa Agricultural Global 2000 Project to boost farmer yields and achieve food security. Small-scale farmers recorded significant improvement in their per acre yields (Dowswell, 1989). This project was also associated with the introduction of early maturing sorghum known in Dagbanli as *kajia*, literally translated as "short sorghum," which refers to both its short gestation and the height of the stalk at maturity. Given where Ghana was coming from in terms of periodic famine, increased yield of maize per capita meant that maize became a very popular food crop in Dagbon and Tamale. Thus, maize production improved stability of the food system leading to increased consumption by households.

Although cassava had been introduced in Dagbon earlier on, it did not immediately gain wide acceptance in the area. Its cultivation was limited to plantings at the edges of yam farms. However, the crop gained acceptance and relevance as one of the strategies to diversify the area's food system and thus contribute to long-term solutions to famine and food shortages. Unlike maize and other cereal crops, cassava requires low inputs to grow, so it was easy to establish large cassava farms or plantations, and became an important food item beginning in the 1970s and 1980s. A 70-year-old male interviewee summarized his recollection of the introduction of the "new" crops in Tamale as follows:

> I will say that crops like maize and cassava have been around for about 40 to 50 years. Growing up, we did not know about these. I recall that cassava was introduced in my lifetime and it had very low acceptance. I remember that some elderly people used to say that cassava was the same as the roots of trees, so they would not eat it. Let me say that persistent food shortage or poverty is a recent development in Dagbon, it was not

> common. Therefore, the new crops were introduced to help increase crop yields in order to help address food shortage and food poverty. (Interview, February 19, 2020, Tamale)

However, deteriorated soil quality and environmental pressures, including urbanization, have affected the cultivation of cassava too, reducing the crop's importance. A 64-year-old male respondent captured these dynamics as follows:

> Many factors affect our crop yields in Dagbon, especially in the outlying areas of Tamale. First, we have lost our farmlands to urbanization. Droughts have been common because the rainfall pattern has changed significantly; we can no longer predict it with accuracy. Adoption of new farming methods has also affected crop yields in this area. The use of tractors, for example, has meant that some people farm more than they can manage, leading to poor harvests. But the worst of all is the introduction and acceptance of agrochemicals [weedicides, pesticides, herbicides]. These chemicals have caused the impoverishment of the soils and this has affected the cultivation of native crops. (Interview, February 22, 2020, Tamale)

Table 12.1 summarizes the key indigenous and exotic food crops in Tamale and the meals made from them.

New and early maturing beans were introduced around the late 1980s and early 1990s, and this was associated with high pesticide use. But because agrochemicals had not yet been made popular at the time, suitable pesticides for food crops were either not available to farmers or not popular. As a result, many farmers diverted the DDT chemicals supplied them to control pests on their cotton farms to the control of pests on the early maturing beans. However, people soon noticed that they became sick when they consumed the beans. Respondents now interpret this as the effect of high doses of DDT on the beans, but they said that at the time people could not make this connection. They simply acknowledged the effect that consumption of the beans had on their physical performance and gave it a derogatory name: *ga mpabgi*, which means "eat and become physically weak," but it also has a derogatory connotation with eating filth. Accordingly, this breed of newly introduced beans did not gain ground in the way that maize did. However, it is resurfacing now as there are specific pesticide chemicals available to be used on such crops.

The respondents explained that the increased use of agrochemicals, including fertilizers, has led to alteration of the physical properties of

Table 12.1 Key food crops in Tamale and meals made from them

Food crop/item	*Meals made*	*Still readily accessible?*
Indigenous foods and meals		
Sorghum	*Saɣim*, *koko*, brewing of local malt drink, snacks	No
Millet	*Saɣim*, koko, snacks with fresh milk, *fula*	No
Yam	Eaten boiled, roasted or fried; *fufu*	Yes, but very limited
Beans	Eaten boiled, *gablee*, *tubani*, snacks	No
Bambara beans	Eaten boiled and roasted, *gablee*, *tubani*, snacks	Yes, but very limited
Bungu (sesame)	Eaten as snack with millet, used as condiment to make soup for *saɣim*	No
Nili (melon seeds)	Used primarily to make soup for *saɣim*	No
Adua (pigeon pea)	Eaten boiled	Yes, but becoming limited
Newly introduced foods and meals		
Maize	Has replaced sorghum and millet as principal material to make *saɣim*, *koko*	Yes
Sorghum (*kajia*)	Mainly *koko*, snacks, brewing of local malt drink	Yes
Rice	Many dishes: plain, jollof and fried rice, *waakye* and rice balls	Yes
Groundnuts/peanuts	Replaces *bungu* and *nili* as the main material for soup making	Yes, but with declining harvest
Beans (early maturing)	Eaten boiled, *gablee*, *tubani*, snacks	Yes, but with declining popularity
Soybeans	Grown largely as cash crop but used occasionally for *gablee*, snacks	Yes
Cassava	Mixed with maize to make *saɣim*, mixed with bean flour to make *gablee*, processed into *gari*	Yes, but with declining harvest

the soil and the environment generally, and that has affected the yield of native crops. Inappropriate use of fertilizers, weedicides and pesticides was said to have affected soil quality so much that, together with pressures from urbanization, native crops such as sorghum, millet, beans and yam

can no longer be grown within the peri-urban and outlying rural communities of Tamale. The reduced supply within the peri-urban communities of Tamale and other adjoining districts means that these local or native products have to be brought in from far-away areas at high cost, which in turn affects the price of these commodities. This means that poor households are unable to access these products and this impacts negatively on the welfare of the elderly, whose preference is still very high for the local foods. With no other options, households turn to the globalized food system for cheap imports from elsewhere, but these do not necessarily promote the subjective well-being of the people. The elderly in particular complain about the lack of "proper" food available to them, saying that they eat these foods for survival because *ninsal noli yaɣi mori ŋubbu*: "a human cannot live on grass like animals." The following section discusses people's feelings of being food insecure in terms of their food preferences and utilization.

Exclusion of the Elderly in the New Food System

The above discussion of historical events and processes that have interacted to change the food system of Tamale provides context for discussion linking individual food preferences with subjective well-being. Households in both the urban core and peri-urban areas of Tamale now depend on the market for their food needs. However, the respondents mentioned that some households draw on rural–urban linkages to access some of these foods, either through migrant farming at distant farming communities or through family members who engage in farming at such distant farming areas. They said that it was still possible to produce some of the local food crops at farming communities beyond a 60-km radius of Tamale. However, this type of migrant farming required a lot of capital outlay, and many disadvantaged households rendered landless by urban expansion in the peri-urban areas cannot garner such capital. Therefore, the market becomes the only source of food for these households. Given their low incomes, dependence on the market exposes these households and their members to food insecurity, in terms of access to the type and quantity of foods they would love to eat.

The older members of poor urban households are affected more by limited access to the foods that households would prefer to eat. The respondents bemoaned the situation by using appropriate Dagbanli proverbs. For example, the 70-year-old respondent remarked:

> Complete dependence on the market for food is a very big inconvenience. There is no way one can eat well while depending on the market. As you know, our elders say that *ŋunda ndi ku tooi ŋmani kamboŋlana*, meaning "whoever depends on the market for their food needs cannot attain the same food security status as one who eats from their barn." (Interview, February 19, 2020, Tamale)

This expression has deep and varied meanings in the cultural context of the elderly respondents. First, it emphasizes that the people's cultural pride in food sufficiency is such that buying food from the market is seen as a sign of failure as a farming household. Second, it implies that it is very difficult to depend on the market and still achieve food security in terms of eating the right quantities and the type of food one would want to eat at any given point in time. While this reasoning is culturally embedded, it also reflects the low-income levels of the people. While the proverbial reference implies that it is not possible to depend on the market for one's food needs, many people can depend on the market and even overconsume because they have enough income to buy whatever food they need from the market. It therefore has a more direct reference to the worldview of elderly residents and low-income households.

Expanding on the idea that "we eat every day, but I am perpetually hungry," a 63-year-old male respondent had this to say:

> It is true, I have nostalgic feeling all the time about those good old days when we ate real food. We did not know Maggi [popular industrial spice in the market] or all of these funny products. We ate good soup made from nili [melon seeds] and *kpalgu* [dawadawa, from the African locust plant], *tubani* [dumplings made from beans or bambara], *koko-nyina* [porridge breakfast made from millet, sorghum or in later times maize], you name them. Now we do not even know what we are eating, we just swallow in stuff like grazing cattle. Can you compare soup made of groundnuts and Maggi to one made from nili, kpalgu or kantong? No way! So, why won't one be hungry all the time when he or she reminisces about these things? (Interview, February 16, 2020, Tamale)

The soup made of nili is one of the foods the respondents said they missed the most. They explained that it was not only nutritious but also medicine for many minor diseases. They believed that regular eating of soup made from nili with kpalgu gave them good health. They explained further that due to its nutritional value, women who had just given birth were fed

exclusively with nili soup made with pepper to help heal their wounds as well as to help restore their general vitality after childbirth. While the local people had no scientific know-how to tell the exact nutritional value or properties of nili and other indigenous food products, there is scientific evidence that nili and other melon seeds contain vital nutritional properties that are good for human health (Mensah, 1986; National Research Council, 2006). Soup made from nili thus assumed not only nutritional significance, but also cultural importance.

The respondents independently expressed the same view that the changes that have occurred within their food system have generally lowered the status and living standards of the elderly. They explained that in Dagbon culture, the elderly and postpartum women enjoyed preferential treatment with respect to food. For example, historically meat has not been a regular part of the diet of an average Dagbamba household. However, the elderly and postpartum women were served meat regularly. Cured meat was added to the special soup prepared for new mothers, while the elderly were treated to the same cured meat in their regular mid-morning meals. An animal or guinea fowl was killed for the purpose, as culturally the Dagbamba do not kill a fowl for meat except on special occasions such as when receiving a visitor, when celebrating a marriage, when doing sacrifice or during funerals and festivals. While the practice of serving meat was meant to help restore the vitality of women after they had given birth, enjoying these treats was a mark of status for the elderly. The mid-morning meal for the elderly was also made from millet porridge mixed with fresh milk. However, the prevailing urban food system transformation does not make it possible for the elderly to eat the foods that once characterized their "pension lives" and made them enjoy their old age. Some of these foods can be found in the market, but the elderly poor cannot afford them as they would like. As such, they are eating like anyone else. As a 72-year-old respondent put it:

> *Gumachuyu porisirila o nini ni nye sheli* [a chameleon changes to the colour of what it sees], so we are eating what we get rather than what we would like to eat. I think we are not enjoying our old age as much as our fathers did, and it has also meant that we do not command respect from society as much as we should. I feel this is partly due to how and what we eat. (Interview, February 10, 2020, Tamale)

Another respondent was of the view that the issue of urban food system transformation is very complex. In addition to the physical conditions and urbanization pressures that make it difficult to produce one's own food, globalization of cultures, lifestyles and consumption also has an impact:

> For example, the youth of today have taken on lifestyles that alienate them from their parents such that the latter are less catered for. The youth now eat out a lot of the time and eating a lot of the foods they should not be eating at their age [meat]. These days, one finds kebab joints everywhere in Tamale and it is the youth who patronize these with their girlfriends, to the neglect of their supporting role to their elderly parents. Gone are the days when a young person could not eat meat at the expense of their elderly parents. Now things are different. (Interview, February 19, 2020, Tamale)

A respondent narrated an incidence of a father rejecting a son's gift in public because he felt the son had neglected him for too long. The story has it that a father stopped by a "chopbar" (local restaurant) to eat. While there, the son came in with his friends, apparently to drink. On seeing the father, the son quickly walked to him and handed him GHC10 (about US$2) to buy food. But the father rejected the money, announcing to anyone listening that the son had abandoned him and was only giving him money as a public display of care.

These are some food-specific examples that interviewees gave to demonstrate that the elderly no longer enjoy the respect they deserve in society. Food cultures and traditions are very important elements in the food security equation in terms of food preference, identity and subjective well-being (CFS, 2017; Noack & Pouw, 2015). As shown below, decision making around household food purchases and preparation may also contribute to the worsening situation of people not eating what they want to eat.

Intersections of Gender and Generations in the Changing Food System

Food utilization is one of the key pillars in the Food and Agriculture Organization (1996) definition of food security, along with availability, access and stability. According to Polly Ericksen (2008), food utilization has three elements: nutritional value (how much of the daily

nutrient requirements we obtain); social value (the cultural aspects of our consumption practices); and food safety (how safe or otherwise is the food we eat, as a result of its preparation or processing). It is the second of the three elements that is of interest here, one that has been given little attention in the food and nutrition security equation (Noack & Pouw, 2015). The cultural value of food utilization is important because observing culturally accepted norms and practices in our eating habits promotes subjective well-being in some ways: people feel really satisfied if food is served and eaten the way it ought to be, and in the right environment (CFS, 2017). This, then, borders on decision making regarding what is bought, prepared and served, and by whom. How and when the food is eaten are shaped by culture and they also express cultural values embedded in food utilization. Decision making and the observance of some of these cultural values are particularly complex in urban settings where cultural values, the nature of work, household gender and age dynamics, and social norms are rapidly changing (Riley & Dodson, 2019).

In traditional Dagbon culture, men and women have distinct roles in food preparation and utilization. Culturally, it used to be men's role to provide and ration out groceries for household use, while women processed the groceries into meals and served household members according to cultural norms. The traditional way of serving was that toddlers and the household head (whether male or female) ate alone, while any others ate in groups. Women, men and children would eat in groups and the size of the group would be determined by the total number of household members in each gender and age category. While serving food was generally considered part of food preparation, meat would be served by the household head or the eldest son. After the other food was served, the household head or eldest son was called upon to share the meat to every bowl or plate. The household head was supposed to start eating before anyone else. The elderly respondents gave two reasons for this. First, it was a sign of respect for the household head to do so. Second, the household head had to "verify" that the food was safe for the consumption of his or her household members. It was believed that the household head had the experience and "powers" to detect bad food and protect other members from eating it. In essence, he or she functioned as a laboratory and a "guinea pig" for the household food.

However, many of these cultural practices no longer apply in urban settings, significantly altering decision making related to food utilization. For example, it is no longer mandatory that men ration out groceries for

household use. This was easier when a greater proportion of food came from own production and was stored in traditional granaries and barns knowns as *chenchaŋkuma* and *kambona*, and yam barns (*nyukori)*. With the current dependence on the market, most urban households do not store grains in quantities greater than 100-kg bags, and most of this is purchased by women. The responsibility to ration food for the household now belongs to women. There are two reasons for this. First, it is believed that women interact with the market more often than men, and so have better knowledge of the food geography therein. The second reason relates to status. As reported earlier, the respondents believed that whoever depends on the market for food cannot enjoy the same food security status as the one who eats from his or her granaries. It is therefore seen as embarrassing for the man to be seen buying groceries from the market. What it means is that women now make the most important decisions that drive food utilization, from purchase and preparation to serving. This new role sounds empowering for women in Tamale, given that in most societies women decide what is eaten in the household (CFS, 2017). Women also now serve meat for household members. But behind all this is the increased role of women in the household food provisioning. A 64-year-old male respondent elaborated on this as follows:

> How do you dictate to her when she is the one that often buys the food [with her own money]? I told you that some of us have no work to do, we earn no income at all. And if you do not have older sons working to feed the family, then your wife takes the mantle by default because she cannot watch her children starve. Women are more resilient because they always have something to do to earn some income, petty trading. So I think it is useless to try and control her decision making because if she was not a good and responsible wife and mother, she would not work to feed the family. (Interview, February 22, 2020, Tamale)

Generally, men appreciate and respect their wives' efforts. They also feel, however, that they can only eat whatever the women decide to cook. They cannot really make a choice unless the woman seeks their opinion. Sometimes the men know that the women are struggling to buy basic food items, so there is no need to bother her to buy specific foods that might be very expensive. Some respondents expressed the opinion that women having control over household food provisioning is one of the factors that makes husbands and elderly men lose their status and self-esteem. They

believe that women become pompous and disrespectful when they know they have more economic power than the men in their households.

Women's control over household food provisioning and utilization decisions has implications for household food security outcomes in Tamale. First, women's control over household food sourcing and utilization helps speed up the food system transformation unfolding in the city. This is seen in women using convenience as a factor in deciding which foods to buy and cook for the household; they tend to avoid more traditional foods, which many contemporary women struggle to cook well. For example, the elderly male respondents were of the view that many of the indigenous foods listed in Table 12.1 are no longer part of their regular meals because many of the young women who now take charge of cooking for their families do not know how to cook such foods. Instead, these young women prefer convenient foods, principally rice, which was never part of the regular dishes of the people. Rice was formerly a cash crop and only eaten occasionally during festivals and other social gatherings. Women also prefer modern, industrial spices and condiments instead of the traditional, more healthy ones such as dawadawa and nili.

The women who participated in this study, aged 30 and 42 years, explained that because of schooling and urban life, they did not get enough training on how to cook some of these foods. They also did not have adequate time to prepare some of the foods, and with respect to the popular nili, they claim that soup made from it easily turns watery, so they prefer using groundnut paste. The responses from one of these women were very interesting in that her husband boasted that he does not eat food cooked with Maggi or groundnut paste because the latter causes piles. He goes to the market himself to buy the nili and fish, and he knew his wife knew how to cook with these. The wife admitted receiving these ingredients from the husband but said she does not use them (but the husband did not know this); when she used them, she said, the children did not enjoy the food because they found it less tasty. She also saw on TV advertisements that these foods are good, otherwise why would they be advertised to people?

Another implication of women's control of food utilization decisions is that it exposes households to diverse foods, including meat. This is where women's empowerment has a positive effect on household nutritional outcomes, especially among children (CFS, 2017). Even though Table 12.1 shows diverse traditional dishes in Dagbon, the reality was

different; the meals of households revolved largely around koko (breakfast) and saɣim (lunch and dinner). It is generally believed in the area that women tend to want to eat diverse, "nice" foods more so than men. A respondent remarked that a man could quarrel with his wife on suspicion that the wife spent her working capital on eating sweets and other foods considered luxuries, such as meat, cake and snacks. This happened when a wife sought the husband's financial support to boost her dwindling trade. It means that with women in control, they will likely diversify the household meals away from the koko and saɣim that appeared so monotonous. This has had significant effects on children, who now eat meat and eggs to boost their growth. In typical Dagbon cultural practices, it was not encouraged for children to eat meat and eggs, as it was believed that it would make them become thieves. So, when a fowl or guinea fowl was killed in the household, the meaty parts were consumed by adults, leaving only the feet, head and wings for children. However, with women controlling what is eaten in the household, households are now served diverse meals and children eat meat and eggs on a regular basis.

Conclusion

The food system in Tamale is transforming very fast. Looking back over several decades, this change has been brought on by several factors, including famines, the promotion of maize, urbanization pressures on land use, global food market integration and cultural globalization. On balance, these factors create vulnerability for some elderly and low-income households in Tamale who can no longer access the traditional foods they were used to, and the problem is compounded by the inability to prepare these traditional foods even where households are able to access some of them. Using the subjective well-being of four elderly men in Tamale as an analytical frame to understand the impact of food system transformations provided rich insights into a population who feel left behind by rapid change. Their food needs in terms of preference are seldom met, and they feel they are "living in the shadow of themselves." They feel their dignity and social status have been undermined by the inability to eat what they should be eating at their age. They didn't lack food to eat, but they also never felt satisfied with the foods they were eating, leaving them in perpetual hunger (subjectively). On the other hand, the food system

changes are benefiting children, who used to be at the periphery of household food consumption. Young household members now have a variety of foods to choose from and the agency to make food choices. However, the long-term effects of children's exposure to the changing food system are beyond the scope of this chapter. For example, a growing preference for convenience foods may predispose children to poor nutritional outcomes such as overweight and obesity.

The study has policy and programmatic implications if the tenets of inclusive urban development are to be achieved. Working to achieve two of the Sustainable Development Goals (SDG 2: Zero hunger; and SDG 11: Make cities inclusive, safe, resilient and sustainable) requires attention to subtle differences in experience of different segments of the urban population in terms of vulnerability and opportunities, and attempting targeted interventions accordingly. In this regard, a practical starting point to address exclusionary urban development in the Ghanaian context will be to broaden the scope of Ghana's Livelihoods Empowerment Against Poverty (LEAP) programme, which was designed to alleviate poverty but which appears overly focussed on rural poverty. Among other goals, the LEAP programme seeks to provide social protection to vulnerable and poor Ghanaians (including the elderly poor) who lack productive capacity, by granting these unconditional cash transfers to help improve their living conditions (Government of Ghana, 2007). Given increasing urban poverty, together with the evidence presented in this chapter, it is imperative to broaden the focus of the programme to target the urban elderly, who have huge unmet needs regarding their food preferences.

From the perspective of practitioners, the evidence presented calls for a rethinking of how utilization is measured in the food security equation. For example, biological and anthropometric measures are often employed to gauge utilization (Swindale & Bilinsky, 2006); however, the elderly's subjective feeling of being food insecure suggests that the biological and anthropometric measures might not make for a comprehensive assessment of a population's or an individual's food security status. While the standard tests for food insecurity (Household Food Insecurity Access Scale, Months of Adequate Household Food Provisioning, and Household Dietary Diversity Score) include questions about household experiences of food inadequacy, the experiences of the elderly in this study show a highly complex set of experiences within households that may not be readily measurable. This is why it is recommended that practitioners and researchers take a comprehensive approach to assessing

food security by broadening the indicators to include food preference, social and cultural dimensions and notions of subjective well-being (CFS, 2017; De Groote & Kimenju, 2012; Quisumbing, 2013; Webb et al., 2006). For example, assume that a nutritionist independently applies the biological and anthropometric measures to an individual and the results show the person is food secure in terms of utilization.

Yet the same person says he is perpetually food insecure because his desire to eat certain foods has not been met. Whose argument should the analyst take and why? Perhaps the non-alignment or low correlation between the Household Food Insecurity Access Prevalence results that indicated 70% of sampled households were food insecure, compared to only 2% of the sampled households falling below the acceptable threshold with respect to the Food Consumption Score in a study by Joanna Van Asselt et al. (2018) in Accra, may be explained by the subjective element of saying that one is food insecure. In short, the component of utilization of food that concerns cultural values and subjective well-being makes it difficult to quantitatively measure household or individual food security. Perhaps a food system assessment might prove a useful alternative in the context of the evidence in this chapter, as it not only captures the as-it-is situation of food security problems "but also provides an understanding of the context and dynamics that have led or are leading to a crisis" (Haysom & Tawodzera, 2018, p. 122).

References

Andam, K., Tschirley, D., Asante, S., Al-Hassan, R., & Diao, X. (2018). The transformation of urban food systems in Ghana: Findings from inventories of processed products. *Outlook on Agriculture, 47*(3), 233–243.

Battersby, J. (2017). Food system transformation in the absence of food system planning: The case of supermarket and shopping mall retail expansion in Cape Town, South Africa. *Built Environment, 43*(3), 417–430.

Bush, R. (2010). Food riots: Poverty, power and protest. *Journal of Agrarian Change, 10*(1), 119–129.

Committee on World Food Security. (2017). *Nutrition and food systems* (HLPE Report 12). High Level Panel of Experts on Food Security and Nutrition (HLPE), Committee on World Food Security (CFS).

Crush, J., & Frayne, B. (2011). Supermarket expansion and the informal food economy in Southern African cities: Implications for urban food security. *Journal of Southern African Studies, 37*(4), 781–807.

De Groote, H., & Kimenju, S. (2012). Consumer preferences for maize products in urban Kenya. *Food and Nutrition Bulletin, 33*(2), 99–110.

Demmler, K., Ecker, O., & Qaim, M. (2018). Supermarket shopping and nutritional outcomes: A panel data analysis for urban Kenya. *World Development, 102*, 292–303.

Demmler, K., Klasen, S., Nzuma, J., & Qaim, M. (2017). Supermarket purchase contributes to nutrition-related non-communicable diseases in urban Kenya. *PLoS ONE, 12*(9), 1–18.

Dowswell, C. (1989) *Feeding the future: Agricultural development strategies for Africa*. Centre for Applied Studies in International Negotiations (CASIN).

Ericksen, P. (2008). Conceptualizing food systems for global environmental change research. *Global Environmental Change, 18*(1), 234–245.

Food and Agriculture Organization (FAO). (1996). *Rome declaration on world food security and world food summit plan of action* (World Food Summit Report). FAO.

Government of Ghana. (2007). *The national social protection strategy (NSPS): Investing in people*. Government of Ghana, Ministry of Manpower, Youth and Employment (MMYE).

Haysom, G., & Tawodzera, G. (2018). "Measurement drives diagnosis and response": Gaps in transferring food security assessment to the urban scale. *Food Policy, 74*, 117–125.

Mensah, E. (1986). *Chemical, functional and processing characteristics of varieties of melonseeds: Agushie (Cucumeropsis Edulis Hook.F) and Neri (Citrullus Lanatus Var. Neri. Thunb)* (Master's thesis). Department of Nutrition and Food Service, University of Ghana.

National Research Council. (2006). *Lost crops of Africa: Volume II: Vegetables*. The National Academies Press.

Noack, A., & Pouw, N. (2015). A blind spot in food and nutrition security: Where culture and social change shape the local food plate. *Agriculture and Human Values, 32*(2), 169–182.

Nyantakyi-Frimpong, H., & Bezner Kerr, R. (2015). A political ecology of high-input agriculture in northern Ghana. *African Geographical Review, 34*(1), 13–35.

Oltmans, S. (2013). *A case study on the food retail environment of Accra, Ghana* (Master's thesis). Department of Community and Regional Planning, Iowa State University.

Peyton, S., Moseley, W., & Battersby, J. (2015). Implications of supermarket expansion on urban food security in Cape Town, South Africa. *African Geographical Review, 34*(1), 36–54.

Quisumbing, A. R. (2013). Generating evidence on individuals' experience of food insecurity and vulnerability. *Global Food Security, 2*, 50–55.

Reardon, T. (2015). The hidden middle: The quiet revolution in the midstream of agri-food value chains in developing countries. *Oxford Review of Economic Policy, 31*(1), 45–63.

Reardon, T., Henson, S., & Berdegue, J. (2007). 'Proactive fast-tracking' diffusion of supermarkets in developing countries: Implications for market institutions and trade. *Journal of Economic Geography, 7*, 399–431.

Riley, L., & Dodson, B. (2019). *The interface between urbanization, gender and food in the Global South* (HCP Discussion Paper No. 36). Hungry Cities Partnership.

Rischke, R., Kimenju, S., Klasen, S., & Qaim, M. (2015). Supermarkets and food consumption patterns: The case of small towns in Kenya. *Food Policy, 52*(C), 9–21.

Searcey, D., & Richtel, M. (2017, October 2). Obesity was rising as Ghana embraced fast food. Then came KFC. *The New York Times*.

Skinner, C. (2016). *Informal food retail in Africa: A review of evidence* (Consuming Urban Poverty Working Paper No. 2). University of Cape Town, Cape Town, SA.

Skinner, C., & Haysom, G. (2016). *The informal sector's role in food security: A missing link in policy debates?* (Working Paper No. 44). PLAAS, UWC and Centre of Excellence on Food Security.

Smit, W. (2016). Urban governance and urban food systems in Africa: Examining the linkages. *Cities, 58*, 80–86.

Swindale, A., & Bilinsky, P. (2006). *Household dietary diversity score (HDDS) for measurement of household food access: Indicator guide (version 2)*. FHI 360/FANTA.

Szabo, S. (2016). Urbanisation and food insecurity risks: Assessing the role of human development. *Oxford Development Studies, 44*(1), 28–48.

Tsrah, P., Quarpong, W., & Laar, A. (2020). Healthiness of foods on promotional flyers of fast-food outlets located within Accra-based shopping malls. *World Nutrition, 11*(3), 51–61.

Van Asselt, J., Masias, I., & Kolavalli, S. (2018, November). *Measures and determinants of urban food security: Evidence from Accra, Ghana* (GSSP Working Papers). IFPRI.

Vercillo, S., Weis, T., & Luginaah, I. (2020). A bitter pill: Smallholder responses to the new green revolution prescriptions in northern Ghana. *International Journal of Sustainable Development & World Ecology, 27*(6), 565–575.

Weatherspoon, D., & Reardon, T. (2003). The rise of supermarkets in Africa: Implications for agrifood systems and the rural poor. *Development Policy Review, 21*(3), 333–355.

Webb, P., Coates, J., Frongillo, E. A., Rogers, B. L., Swindale, A., & Bilinsky, P. (2006). Measuring household food insecurity: Why it's so important and yet so difficult to do. *Journal of Nutrition*, 136, 1404S–1408S.

Wenban-Smith, H., Faße, A., & Grote, U. (2016). Food security in Tanzania: The challenge of rapid urbanisation. *Food Security, 8*(5), 973–984.
Worku, I., Dereje, M., Minten, B., & Hirvonen, K. (2017). Diet transformation in Africa: The case of Ethiopia. *Agricultural Economics, 48*(S1), 73–86.