4 Markets

Aboabo market in Tamale, Ghana.

Hanna Karg

Most urban dwellers in West Africa heavily rely on food markets as their main source of food. Physical access to these markets is determined by their place of residence as the occurrence of markets is closely related to past urban growth and infrastructural development. As these differ in Tamale and Ouagadougou, access to markets also differs. In Ouagadougou, markets have developed simultaneously with the early expansion of the city. The number of markets in Ouagadougou increased from 12 in 1974 to 50 in 1994 along with the implementation of formal urban planning policies and the parcelling of land (Chapter 1).[4.1]

The existence of food markets strongly relates to urban planning.

The consolidated part of the city is well equipped with infrastructure, including markets (Figure 4.1). Rapid urban expansion has outpaced formal planning mechanisms in the urban fringe, which is why the density of food markets in the city decreases toward the urban periphery, where the more precarious informal settlements are located. Thus, due to the long history as a capital city, and formal land zoning in the past decades, Ouagadougou's retail system is decentralized and food markets can be found in the established suburbs (*quartiers*), supplying the neighborhood, while in the periphery the number of markets is limited. Liu (2016)[4.2] showed that altogether there were 118 markets in Ouagadougou (including small roadside markets), out of which 60 were general markets, offering a wide range of food and other products. Fifty-three markets sold mainly vegetables and fruits, and five markets were specialized in animal products. Supermarkets, mostly Lebanese owned, offer imported high-value products for the national and international high-income groups, but for the majority of people, traditional market places remain the main source of food.

One of the formal neighborhood markets in Ouagadougou, Burkina Faso.

Market in Kumbungu, a village close to Tamale, Ghana.

Food shopping preferences

Pay Drechsel

Open-air markets remain an integral part of the food supply chain for the majority of urban households by offering convenience and availability of inexpensive basic foods. About 17% of responding households in Tamale, Takoradi and Accra reported shopping for food at supermarkets “at least once a week”, and about half of all households responded “almost never.” Open-air markets, on the other hand, were visited by about 70% of all households at least once a week, and only about 3% of the households never shopped in open markets. In addition, street hawkers remain popular, for various items including snacks, and fill a niche to meet consumers’ specific demands for ready-to-eat foods. They particularly attract commuters at street junctions and bus stops. About 16.5% of households reported buying their food from hawkers more than once a week. To maintain their dominant market share, open-air market traders will need to employ stricter guidelines and adopt necessary storage/protection technology to maintain and enhance food quality and a clean shopping environment.[4.3]

Supermarket in Accra, Ghana.

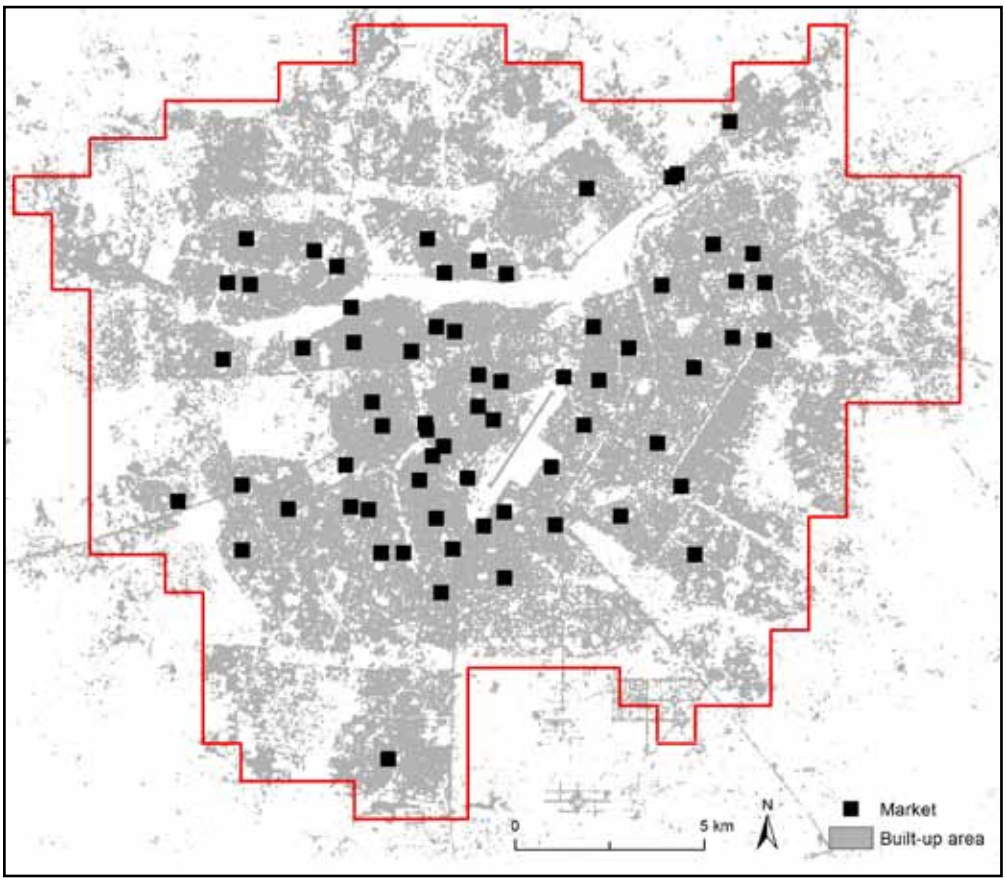


Figure 4.1.
Food markets in Ouagadougou, Burkina Faso.

In Tamale, a medium-sized city in the less-developed north of the country, the variety of food products is more limited as compared to in Ouagadougou. The few supermarkets usually do not offer fresh produce, but largely processed food. Traditional meals consist of largely unprocessed, unpacked food from food markets, and are cooked in homes. They are also served by eateries and street food vendors. Modern dishes include rice, chicken and salad (Chapter 5). In Tamale, two central markets, one with wholesale functions, are the main sources of marketed crops. Additionally, there is one small neighborhood market in Lamashegu, southwest of the city center (Figure 4.2). One factor contributing to the centralized market system is the lack of planning of newly emerging urban areas. While plans by the Town and Country Planning Department that include public facilities such as markets exist, the implementation of these plans is challenging

Planned food market

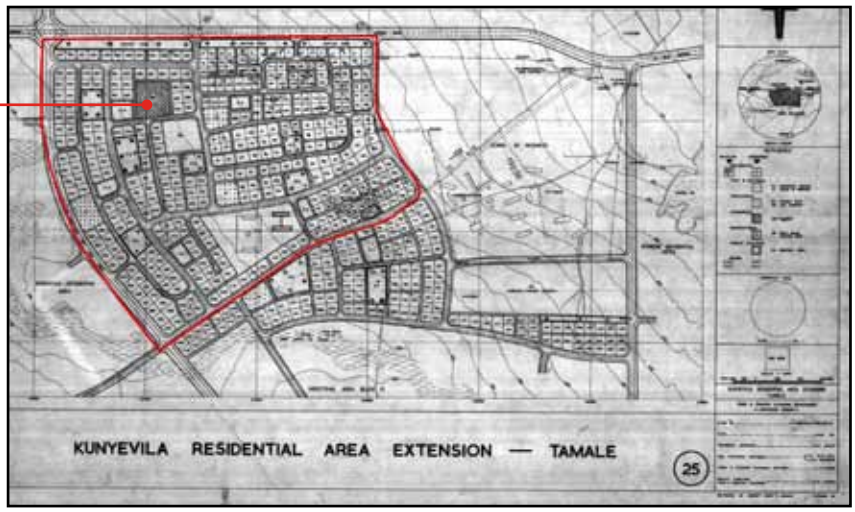


Figure 4.3. Land development plan for a neighborhood in Tamale, Ghana.

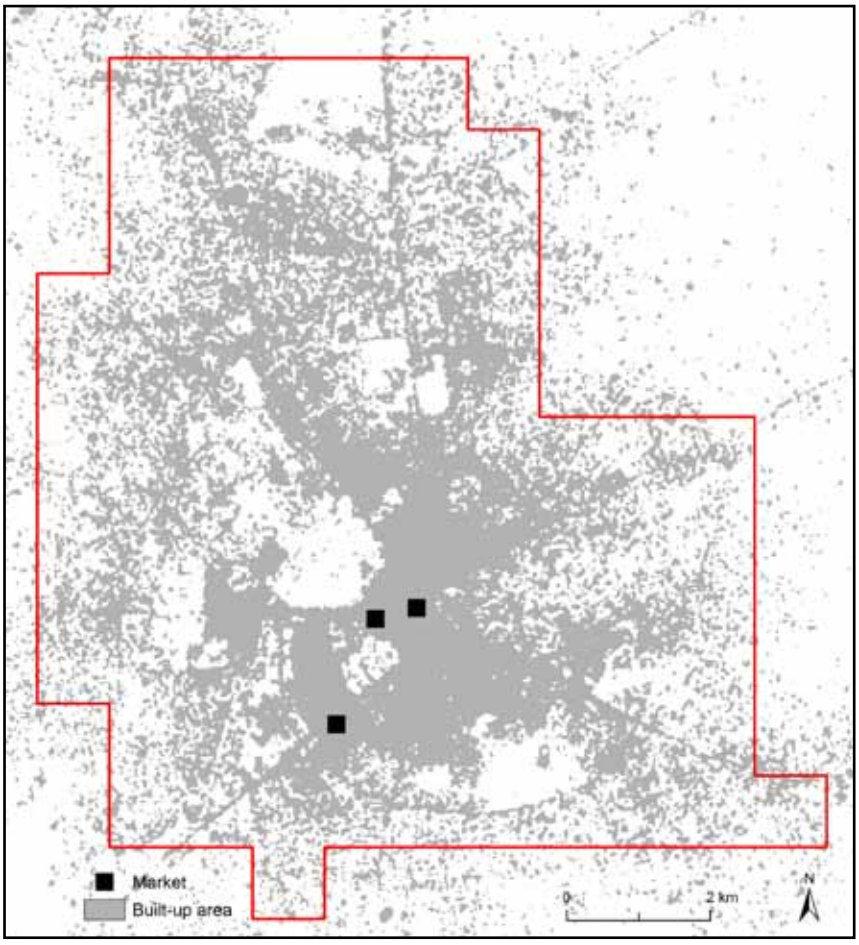


Figure 4.2. Food markets in Tamale, Ghana.

(Figures 4.3 and 4.4). This is partly due to the prevailing customary land tenure system. As a result, market infrastructure is poor outside the city center and physical access to markets is limited for people living there. A study on food access in five neighborhoods in Tamale, located in urban, peri-urban and rural areas, showed that food, such as uncooked ingredients and cooked street food, was available in all neighborhoods. However, in all but the urban neighborhood the availability of fresh food, such as fruit, vegetables, meat and fresh milk, was highly limited and subject to seasonal variation.[4.4] Thus, households are dependent on the central markets, which involves higher costs regarding transportation expenses and travel time for people living outside the center.

Figure 4.4. Neighborhood in Tamale, Ghana that has developed to a residential area without public facilities.

Marketing of leafy vegetables in Tamale

Imogen Bellwood-Howard

Marketing of traditional leafy vegetables is an important livelihood option for women in Tamale, with vendors dealing in amaranthus, roselle, jute mallow and bean leaves.

The traditional leafy vegetable market is loosely structured and unregulated. Within Tamale, there are non-statutory marketers' associations for some goods, such as tomatoes, which regulate the entry of goods, mediating prices. Yet, access to the leafy vegetable market is not regulated in such a fashion. It is relatively easy for farmers to grow local leafy vegetables in the tropical environment, and for local women to trade them. The trade of leafy vegetables is closely connected to traditional community structures of mutual support and reciprocity, and facilitated by Tamale's low-rise, open urban form.

Traders can opportunistically purchase vegetables from farmers cultivating within their local neighborhoods, in particular in backyard farms (Chapter 2.2). There are also patterns of long-term obligation and reciprocity between farmers and wholesalers, and between wholesalers and retailers. These function to guard against seasonal gluts, spoilage and shortages, in a fashion typical of West African agricultural markets in general. When gluts occur, the selling party in the transaction may be able to oblige the purchaser to collect the goods at a price higher than that on the market. This is possible because the purchaser is assured that by doing so, the seller will provide them preferential access to goods in seasons of scarcity. Another mechanism is the horizontal exchange of goods between traders at no profit, allowing a peer to maintain their customers in an event where they have run out of goods. The motivation is not immediate profit, but the possibility of reciprocal assistance, because the long-term maintenance of customers is as important an imperative as daily profit.

These interactions are often between relatives, friends or neighbors. Access to credit is provided through informal no-interest loans, and goods are more often purchased on credit than not.

The entwinement of market imperatives with social structures makes vegetable marketing a resilient livelihood option. It therefore also provides the mainly male vegetable farmers with a commercial livelihood activity and give urban consumers access to nutritional vegetables at minimal transaction costs. Nevertheless, the informal nature of the market means that infrastructure, in particular for storage, is limited.

Marketers about to purchase amaranth from a backyard farm in Tamale, Ghana.

Storage of ayoyo in a bag.

Lettuce marketing chains and bacteria in Ouagadougou

Juliane Dao

Lettuce, which is sold on markets in Ouagadougou, is produced in the urban gardens of the capital city. These gardens are located along rivers, channels or dams, as the fresh vegetables have a high water demand and need to be irrigated daily. Irrigation water is often polluted with pathogenic bacteria, which leads to a contamination of the produce. The harvested lettuces are usually washed on farm with well water and afterwards transported on motorbikes by trading women to the market (Figure 4.5). On the official markets lettuce is often washed with clean tap water to reduce microbiological contamination and to keep it fresh. Still, contamination of lettuce is often above health–based targets, which might result from the pathogen transfer by contaminated irrigation and wash water or by other cross contaminations on the way from farm to the market. Consumers have to wash the lettuce very carefully before consumption to prevent foodborne diseases.

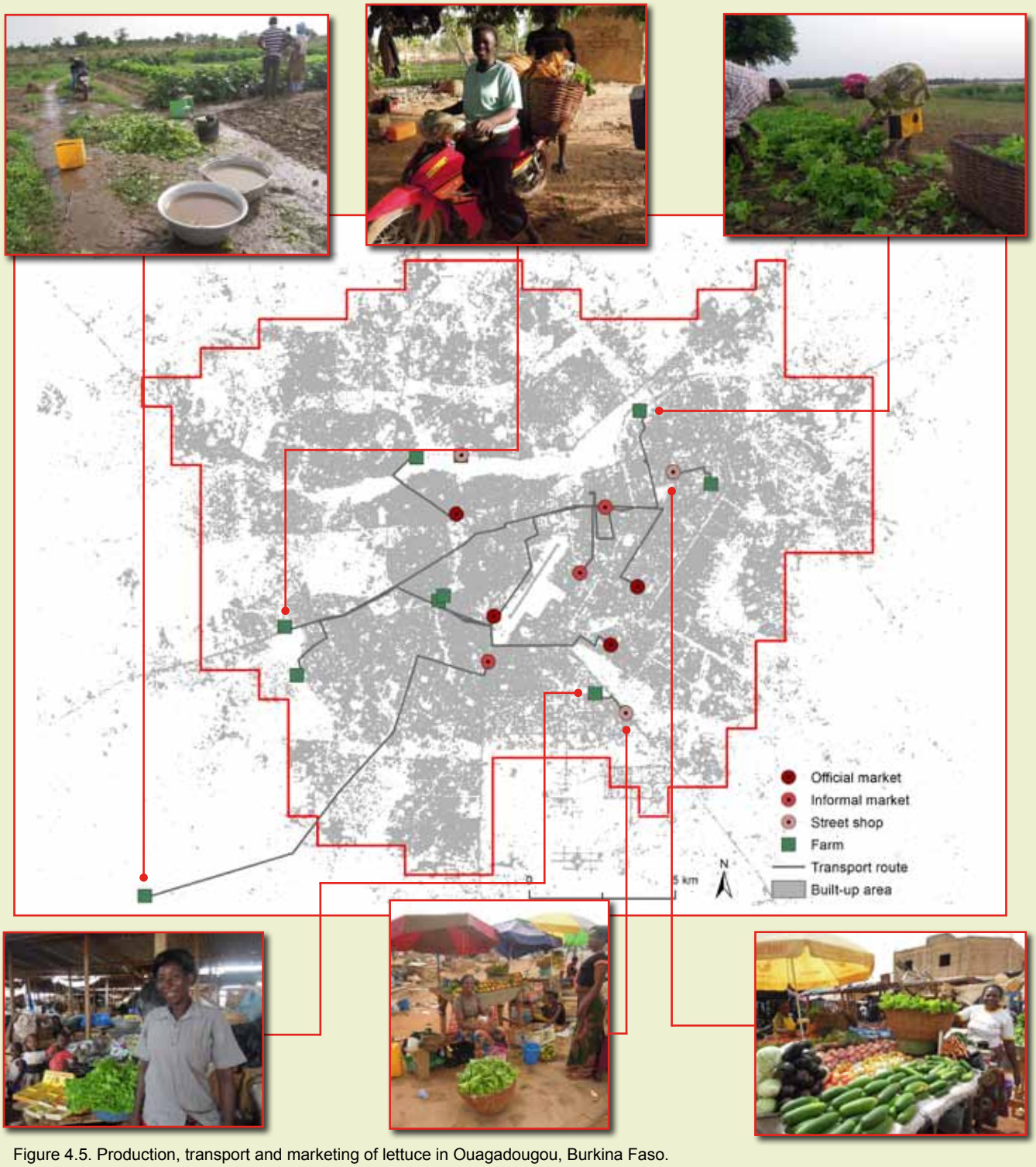


Figure 4.5. Production, transport and marketing of lettuce in Ouagadougou, Burkina Faso.

Cattle market in Ouagadougou.

Milk offtake and milk quality of cows in Ouagadougou

Regina Roessler

Milk holds a huge potential to improve nutrition and livelihoods of urban dwellers in Burkina Faso. From a nutritional point of view, milk protein is particularly valuable, and the milk fat serves as an important energy and vitamin source for humans. Burkina Faso is seeking to improve its self-sufficiency in dairy produce by developing dairy value chains in major cities like Ouagadougou. Improved breeds, technologies and management have been promoted by national and international initiatives and are widely adopted by commercial producers. Accordingly, we observed a substantially higher daily milk offtake from upgraded zebu cows than from purebred local zebu cows managed in the traditional production system (Figure 4.6). The fat and protein content of the milk is similar between cows with different genetic background, and average 4.9 ± 1.45 % and 3.2 ± 0.18 %, respectively. Metabolic disorders, in particular ketosis, are a key problem in commercial as well as traditional dairy cattle herds in Ouagadougou. Without appropriate information and support in feeding management to avoid metabolic disorders due to imbalanced feeding, especially in the dry season, the production potential of dairy cows is not fully exploited and nutrients are lost to the environment.

For more information:

Roessler, R.; Mpouam, S.E.; Schlecht, E. 2018. Identification of appropriate livestock genotypes to improve production performances in small household farms in Ouagadougou (Burkina Faso). *Proceedings of the World Congress of Genetics Applied to Livestock Production, Volume Genetic gain - Strategies for Local Breeds 1, p. 588, 2018, 2018, Auckland, New Zealand*.

Schlecht, E.; Plagemann, J.; Mpouam, S.E.; Sanon, H.O.; Sangaré, M.; Roessler, R. Submitted. Nutrient and energy flows in urban and peri-urban livestock systems of Ouagadougou, Burkina Faso. *Nutrient Cycling in Agroecosystems*.

Milking of cows in a commercial dairy herd in Ouagadougou, Burkina Faso.

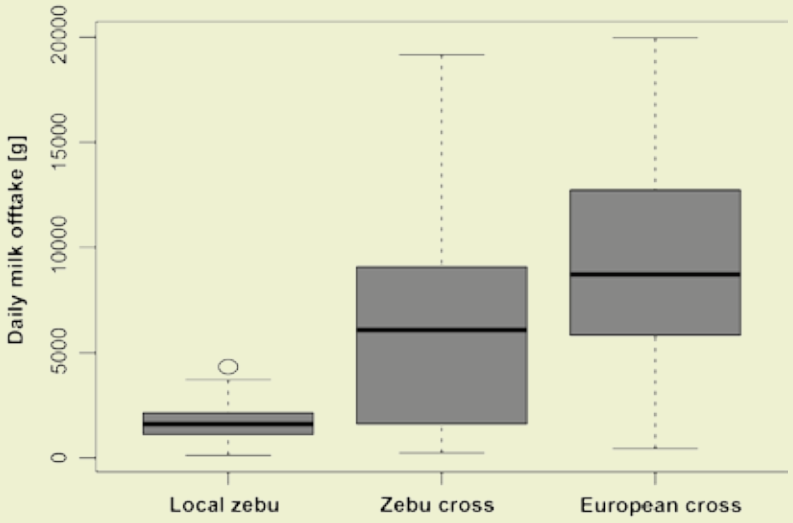
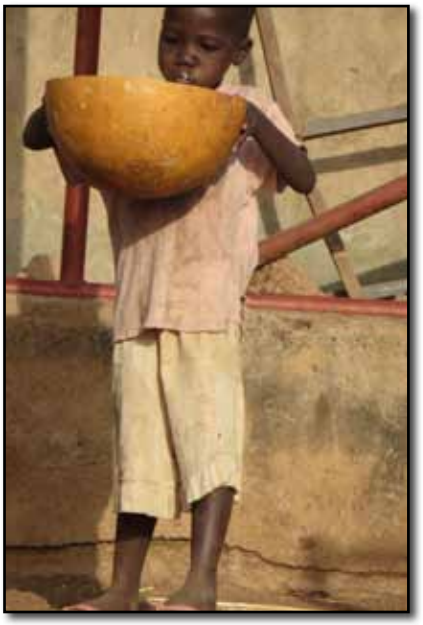


Figure 4.6. Comparative daily milk offtake (milk used for human consumption) across cattle genotypes in Ouagadougou, Burkina Faso.



Raw milk for home consumption (Ouagadouogu, Burkina Faso).

Hand milking of cows
(Ouagadouogu, Burkina Faso).

Raw milk for direct marketing
(Ouagadouogu, Burkina Faso).

Milk processing – filling of milk bags
(Ouagadouogu, Burkina Faso).

Milk processing – yoghurt bags
(Ouagadouogu, Burkina Faso).