



Assessing and Planning City Region Food System

Kitwe (Zambia)

:: Introduction

Kitwe city region includes the 10 districts that compose the Copperbelt Province. The Copperbelt Province is located in north-western Zambia and covers 31,329 Km². It is the second most populated and dense area in Zambia after Lusaka [approx. 2.3 million inhabitants], with 39% living in urban areas. It lies on one of the world's greatest mineral bearing rocks, in particular for copper, dictating the spatial pattern of development.

Three layers have been defined to characterize the area:



1. **Primary** or Core Region, defined exclusively by **Kitwe district**;
2. **Secondary** or Peripheral Region, defined by the **Copperbelt Province**, i.e. the area defined as the city region, where most of the food consumed is produced;
3. **Tertiary** or Other Region: Region **outside** the secondary region but from which the Kitwe food system obtains agricultural, livestock and poultry products.

↑ Kitwe city region: core, secondary and tertiary regions [Source: CSO, 2012]



:: Describing the city region food system (CRFS)

Food production: Who feeds the city region?

The Kitwe City region **has great potential to produce agro-commodities**. Although almost all fresh food products are locally produced, the **demand exceeds supply** and the shortfall is made up by importing from outside the region even outside the country.

The city region has an estimated **80,000 farmer households** that produce a varied number of crops, livestock, **fruit and vegetables** that include maize, soya beans, groundnuts, cattle, pigs, goats and poultry among others. With regard to agronomic practices, a good number of farmers still practice conventional farming, even though it is slowly being overtaken by the more sustainable and high yielding Conservation Agriculture. Generally, supply of fresh fruits and vegetables increased over the past 10 years mainly from residential places, farms/gardens in urban and peri-urban within the district.

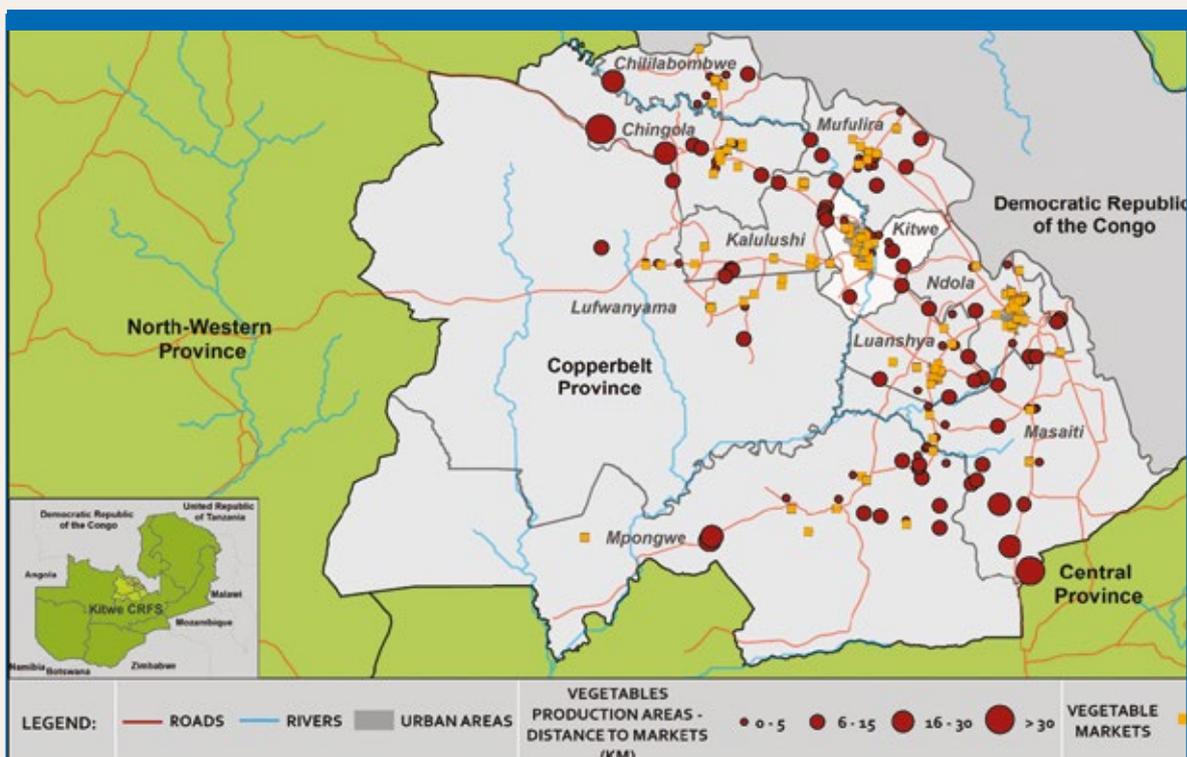
Farmers are facing number of **challenges** in terms of production: difficult **access to land, high input cost, lack of credit** facilities and difficulties to access financing, prevalence of pests and diseases.

Most small scale farmers are still **illegal settlers** awaiting title to land. Access to land in the core region is very difficult due to high demand as well as **competition** between **agriculture, mining activities and urban development**.

There is a major issue of **agrochemicals contamination** of the worker's health and the ecosystems, due to inadequate data to be shared among institutions and lack of awareness on sound agro-chemical management. Significant **pollution** from mines mainly is concentrated in specific hotspots especially the Mulonga and Nkana rivers and sewerage companies often struggle with water quality.

Food processing, distribution and marketing:

There generally is **limited processing** of agricultural products in Kitwe city region. High cost of production and the dependence on processed imports from outside the region (especially South Africa) has made it even more difficult for the local food processing industries to thrive, resulting in the collapsing of most of them as a result of the poor business operating environment.



↑ Kitwe city region vegetables supply: production areas, markets and average distance to markets
(Source: FAO-Copperbelt University, field data collection, 2016)

The city of Kitwe being the hub of the Copperbelt has served as a designated place for housing major **wholesale distribution** points for the region. The region is facing challenges in terms of safe guarding fresh foods from wastage by imploring proper preservation mechanisms. Fresh foods storage and preservation within the city region is characterized by traditional methods by most **informal traders**.

Retail marketing of fresh food products in Kitwe city region is highly diversified. The consumers mostly obtain their produce from: very large wholesale/retail centers, small and bigger markets and supermarkets, small independent supermarkets and chain markets, street vendors, traditional shops. About **70 % of all the fresh produce** marketed in the region was on the **open air markets** whilst **supermarkets** held shares of **17%**. **Street vending** and other outlets share **11%**.

Apart from areas close urban centers **access to markets is limited** in remote areas and particularly constrained in wet seasons due to poor road infrastructures. The image below provides an overview.

Food consumption

On average, perishable foods like fruits and vegetables, meat, fish and dairy products are mostly available to the high-income classes consistently as opposed to the low-income classes which mostly have a composition of stable foods, like maize, sorghum, pulses and some vegetables.

The city region has seen an increase in the number of fresh foods sold and consumed on the market, having an influence on the nutrition status of the city region dwellers. There have also been significant cases of malnutrition [under-nutrition and over-nutrition] in some sects of society within the region. It was revealed that more than **40% of children** under age 5 are chronically malnourished (**stunted**).

Food loss and waste

Food losses are significant in entire value chain mainly from food markets [according to Kitwe City Council nearly **50%** of total losses] followed by food processing and then retail and catering.

Currently, the City of Kitwe generates approximately a total of **110,754 tons/year of waste** from residential and public places. **Residential areas** produce about **80% of all waste**. While 25,000 tonnes of waste is generated by public places, **only 25% is adequately collected, transported and properly**



↑ Food market in Kitwe (© G. Santini)

disposed of. The rest remains at households, open spaces, drainages, roadsides etc.

Governance of the food system

There is no single existing institution mandated to govern the food system within the city region, as well as the whole Country. The agriculture sector is primarily governed by policies and legislation developed and implemented through the **Ministry of Agriculture**. Other sectors such as National Policy on Environment [2007], Fisheries Policy [2011], National Forestry Policy [2014], environment, land, Minerals Development Policy [2013] and National Water Policy [2010] also have legislation that affects the way the agriculture policy is governed. The principle governing policy is the **National Agriculture Policy** [2012-2020] whose primary aim is to ensure that agriculture contributes to reducing poverty and increasing incomes at household level. Locally and within each municipal jurisdiction, agriculture is also governed through the local council by-laws.

:: Opportunities for strengthening the CRFS

The CRFS is facing numbers of challenges that need to be addressed for more efficiency, sustainability and resilience:

- ❑ **Food production capacity** and **access to land** need to be facilitated and strengthened, as well as access to **inputs** and **finance**. In this context, it is sought to review legislation and policies of land tenure. Information sharing and awareness raising is needed to shift to more sustainable agricultural practices such as conservation agriculture, and lower and adequate use of agrochemicals.
 - ❑ **Water pollution** related to extensive farming activities along the Kafue River and its tributaries together with intensive application of fertilizers and deforestation, needs to be addressed. Land management and soil quality need to be looked at, in terms of agricultural, mining and construction activities. **Unsustainable mining activities** are contributing to soil degradation and contamination, reducing the amount of arable land available for farming. In addition, the uncontrolled **urban construction** threaten agricultural land and activities, by quickly spreading and contributing in contaminating soils.
 - ❑ Better **road network** and **storage facilities** would benefit the farmers by providing them
- a better access to markets and avoid food wastage because of bad storage conditions. Easier access to on-farm transformation facilities and processing companies would also avoid food losses by manufacturing food surplus for better conservation, especially when it comes to fresh products.
- ❑ **Markets** need better quality storage (cold and standard) facilities, to avoid post-harvest losses. More transparency on **prices** would allow a more equal distribution of the value among the stakeholders, especially for the farmers.
 - ❑ **Food insecurity** has a strong correlation with limited physical or economic **access to food**. However, lack of knowledge on balancing **healthy diets** also a major contributing factor to food insecurity and malnutrition. **Food safety** is also an issue that needs to be taken seriously: control over water quality, land pollution, packaging, storage and processing contamination, need to be strengthened.
 - ❑ **Waste** is accumulating in the City due to **lack of waste collection** and transportation vehicles, which in turn is the result of insufficient funding. In addition to accumulation of waste, large amounts of waste are burned in the streets of Kitwe causing nuisances, and unsafe conditions.

:: Policy and planning interventions for CRFS

Within a multistakeholder and participatory process, policy strategies and intervention plans are being identified. These include:

- ❑ Creation of a **database for value chain actors** to reduce **information asymmetry** between financial institutions and actors,
 - ❑ Establishment of a **knowledge sharing platforms** where actors interact and strengthen their relationships through existing associations,
 - ❑ **Capacity building** for farmers in agro-processing, product labelling, grading and packaging,
- Establishment of systems that enable farmers access to **non-collateral farm loans/insured credits** through engagement with financial and agriculture policy makers (i.e. National conference/workshop on farmer access to non-collateral capital),
- ❑ Promotion of **contract farming** through the knowledge sharing platform, and
 - ❑ Engagement of research institutions to develop more economic methods of **value addition for small producers**.

Contacts

Prof Jacob Mwitwa, Copperbelt University, Kitwe. Email: jacob.mwitwa@gmail.com

Guido Santini, FAO. Email: guido.santini@fao.org

With support from



by decision of the
German Bundestag

