



Vegetables for the City

Survival Market Gardening in Kinshasa Metropolitan Area in the Democratic Republic of Congo



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The economy of the Democratic Republic of Congo (DRC) is mainly informal. This paper zooms in on one of the sixty market gardening sites in the city of Kinshasa and the upstream and downstream organisation of vegetable value chains in the metropolitan area. It argues that the design and implementation of large urban vegetable production and marketing programmes in the area should not only involve formalised groups and organisations. The many actors in the informal economy should be considered and engaged to prevent mistrust and tensions and support the market gardening system as a whole.

The context

The capital city of Kinshasa is a huge agglomeration of 10,000 km², hosting over 17 million inhabitants. Because of population growth and rural exodus, it is expected that in ten years from now the population will be over 25 million people (ANAPI 2019).

The national economy is largely informal: an estimated 3.4 million of informal production units employ 88% of the country's working population (INS 2012). The main characteristics of these units are the following: small-scale activities, predominantly by women; no registration nor specific business premises; no regulations on working hours, workers' rights or social protection; modest individual savings, support from family and friends and informal loans as the main sources of finance (Dumbi & Alenda 2022). The metropole Kinshasa is also based on an informal economy, accounting for 26% of all informal production units. Market gardening is one of the many ways the population of Kinshasa has created jobs to generate some income (INS 2014).

With 60 market gardening sites, the city of Kinshasa has more than 10,000 market gardeners (Nzolameso, 2010). Kimwenza is one of these sites, where mainly female farmers produce a variety of vegetables. Both upstream and downstream of the market gardeners, there are multiple other players who are involved in the Kinshasa vegetable sector. Together they supply fresh vegetables to the urban population every day. In Kinshasa, the average vegetable consumption is 25 kg per person per year. That is 70 grams daily. This is much less than the minimum of 400 grams per day recommended by the FAO and WHO. In 2010, when the population was 10 million people, Kinshasa's annual vegetable consumption stood at around 150,000 tonnes (Minengu et al. 2018). With the rapid increase of the urban population and a required increase of vegetable consumption, this production should exponentially increase to meet consumer needs.



Figure 1: Kimwenza market gardening site in Kinshasa.

Did you know?

Covering 2.3 million km², the Democratic Republic of Congo (DRC) is the second largest country in Africa. Agriculture is key for economic development. The DRC has many comparative advantages such as availability of 80 million hectares of arable land (of which only 10% is cultivated), diverse climate and agro-ecological conditions, and an important domestic market of more than 100 million consumers. Despite this potential, the DRC imports more than 80 of its food products.



Source: BBC 2024

The Kinshasa market gardening system is largely informal

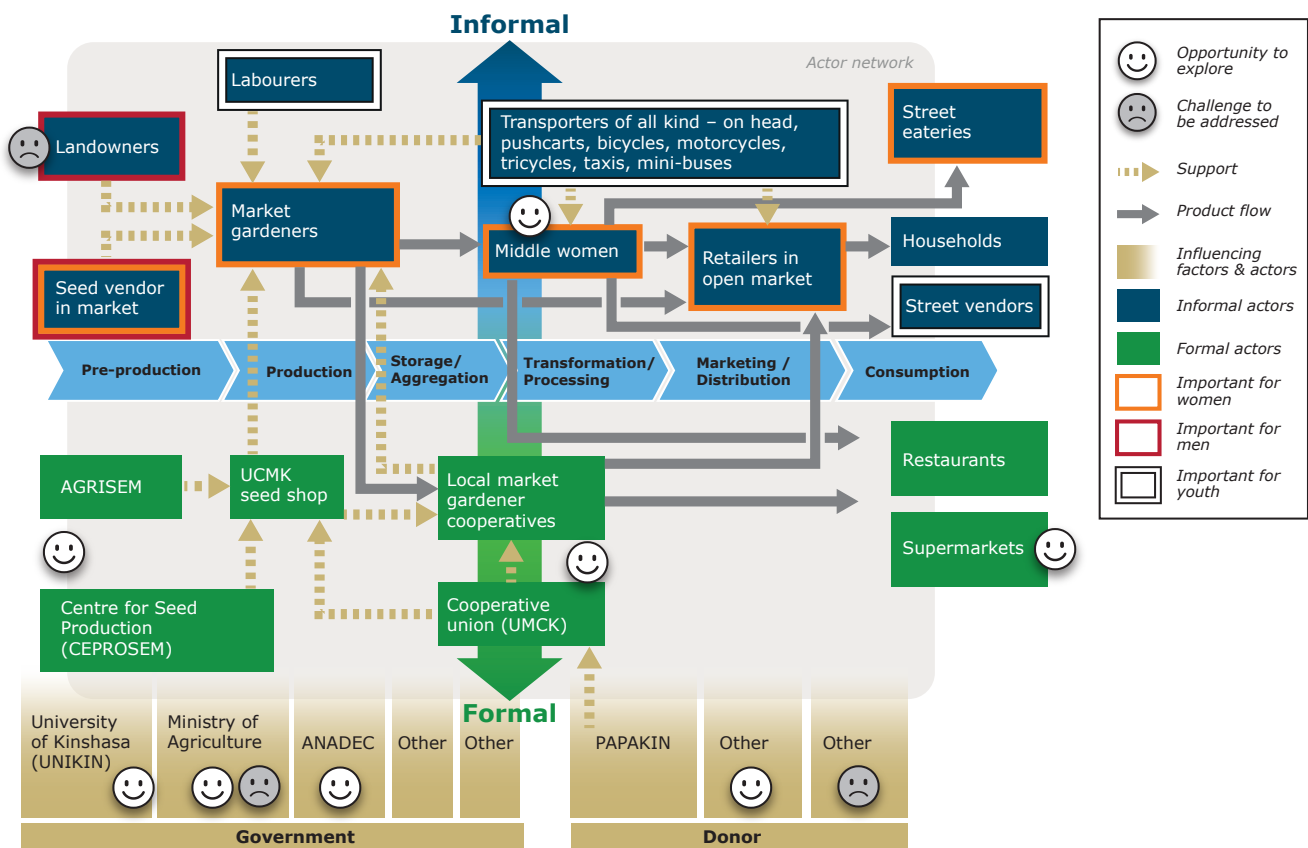


Figure 2: Market gardening actor network, Kinshasa, DR Congo.

Market gardeners. During a survey of the Kimwenza site in 2020 more than 950 vegetable producers were found, mainly women. They produce a large variety of vegetables: amaranth, cassava leaves, sweet potato leaves, lettuce, spinach, sorrel, eggplant, tomato, okra, chilli and others (Dumbi & Alenda 2022). The farmers sell fresh vegetables at the production site. They don't have records about their production capacity, nor do they have accurate and timely market information. Both are important to better respond to consumer needs and prices.

Horticultural cooperatives. Most of the Kimwenza market gardeners work individually. Some 200 gardeners, e.g. slightly more than 20%, are organized in 10 small cooperatives, which make up the Kimwenza Horticultural Cooperative Union (UMCK). It provides different support services to the market gardeners like the supply of seeds and inputs via its seed shop and the regulation of the site. UCMK represents market gardeners when dealing with local authorities and land owners. It handles conflicts, particularly those related to land boundaries or late payment of rent. PAPAKIN (Support programme for Kinshasa supply centres of the Ministry of Agriculture) has provided financial support to UCMK to build facilities, to organise meetings and to undertake activities. A small market with a few stalls for selling Kimwenza vegetables to off-takers has been set up. The external support created some tensions among the market gardeners of Kimwenza, as farmers who were not member of UCMK felt excluded.

Seed and input suppliers. There are many informal seed vendors who actually deliver most of the seeds to the gardeners. The informal seed vendors sell at low prices, but seeds are often of unknown origin and of bad quality. The Department of Agriculture Research of the University of Kinshasa (UNIKIN) develops fertilisers and bio-pesticides, and intends to collaborate with UCMK for the provision of technical training and funding. The Centre for Seed Production (CEPROSEM) specialises in the local production of certified seeds. It offers support to cooperatives through seed subsidies and technical training, and occasionally sells seeds at affordable prices. AGRISEM is a company specialised in the distribution of certified seeds, which are either locally produced or imported.

Middle women, "Market Queens". In wholesale markets female traders or 'market queens' are active. They buy fresh vegetables directly from farmers at the production site and have a good bargaining position since farmers lack good information about consumer demand and prevailing prices. Middle women use bags to condition the vegetables. There are no statistics about their operations. They operate individually and are not organised into a professional cluster. Storage and conservation of vegetables in appropriate facilities is a major challenge.

Informal retail exists in different forms and sizes. Some resellers operate on open markets, other sell in the streets. Some use basins or market tables to condition and present their products. Informal retailers, who are both women and men, are not organised in a professional manner.

Transport. Like retailers, transporters are very diverse. Different modalities are used from walking and head transport (in rural areas and in urban markets), to bicycles, motorbikes, tricycles, pick-ups, taxis, mini-buses and buses. Vegetables are transported on top of (mini-)buses and or in the boots of taxis. The transporters link production sites to local markets and wholesaler markets, and from there to the many and diverse retailer markets in Kinshasa. Most, if not all, transporters are men who work individually without organisation. Motorized means of transport are registered.



Figure 3: Women sell vegetable along main roads.



Figure 4: Carrying vegetables in the bustling streets of Kinshasa.

Supermarkets are formal outlets in Kinshasa, where better-endowed clients buy their food products. Many supermarkets have their own farms and rely as well on intermediaries to gather vegetables from various locations in and around Kinshasa, including Central Congo. UCMK farmers deplore the fraudulent practices of intermediaries, taking advantage of the farmers' impoverished conditions. Because of the lack of bargaining power, market gardeners are reluctant to work with supermarkets and prefer selling to middle women (market queens).



Figure 5: Motorbike loaded with vegetables.



Figure 6: Bags of vegetables transported in taxi trunk to the retail market.

Consumers. Kinshasa has a population of more than 17 million people, so end consumers are many and very diverse. Needs, purchasing power and preferences for market locations differ from one consumer group to another. Middle and higher class consumers go to supermarkets or have domestic workers (informal sector) who buy in open markets. The larger part of the city population buys their vegetables at informal markets and in the streets. Better endowed consumers go to restaurants, less endowed go to street eateries or buy street food.

Challenges and options for action

The Kinshasa vegetable production and distribution system is largely informal. More than 10,000 market gardeners and many more other informal actors earn small incomes to cover their daily needs and contribute to the daily food intake of millions of people in the metropolitan areas. The system is far from perfect and faces many challenges. The conditions under which market gardeners operate as well as the risks associated with land, production and marketing, raise concerns about their livelihoods and futures. Given the precarious circumstances, it is not an exaggeration to refer to the gardening in and around Kinshasa as 'survival market gardening'.

Access to land. A key challenge is the secure access to land. Vegetable production plots in and around Kinshasa are hard to get and hard to keep. Land owners, who are often customary chiefs, rent out land to farmers. They however may claim it back at any time to rent to others, to sell the plot or transform it for housing. Customary chiefs are seen as 'untouchable' and therefore market gardeners persist in their activities while accepting the constant risk of eviction. Parts of the Kimwenza site are being parcelled out and converted into residential areas, leaving only the landowners in place while tenants are displaced by new occupants (Dumbi & Alenda 2022).

In the context of rapid increase of the urban population and plot prices, ensuring land use rights is very important for the gardeners of all market gardening sites. Practical options for action are:

- A much higher farmer organisation rate and joint lobby by all gardeners for land use rights;
- A Kinshasa city master plan for urban farming, food and nutrition;
- Landowners' participation in vegetable production and marketing.

Farmers' organisation rate. The current organisation rate of market gardeners is still low. Vegetable retailers are hardly organised at all. Support to the establishment and development of small farmer groups or cooperatives, building on the existing forms of organisation, is a priority. Saving and credit associations may prove to be important to improve resilience for buying seeds and inputs, and to invest in small entrepreneurial activities such as stores and sales points. These associations can also contribute to record keeping and financial literacy.

Quality seeds and inputs. Access to quality seeds of known quality is a top priority. Concerning the informal seed vendors, ensuring that they sell quality seeds is a challenge. It may be explored if middle women could play a role in the provision of seeds and inputs to market gardeners, reimbursable upon delivery of vegetables to them. The UCMK seed shop is a source of seeds for Kimwenza gardeners. UCMK has chosen AGRISEM s provider because of its ability to deliver seeds according to the needs of UCMK farmers and because it offers seeds at an affordable price, enabling the cooperative to maintain competitive pricing.

Waste reduction and storage. Vegetables are perishable products, so waste is part of the business. However, in Kinshasa, the losses are extremely high because of many reasons: production peaks, leading to oversupply; low product quality; lack of storage facilities at different levels (market gardening sites, middle women market stores); poor packaging and inappropriate transport. Vegetables are often already bruised when they arrive at the market. At the end of the day retailers and street vendors often have to throw away unsold vegetables, leading to a lot of waste in the markets and streets of Kinshasa. Middle women, transporters, retailers and street vendors all take the high loss rate into account when setting their prices. Improved aggregation, crating and transport are top priorities. Investment in cold storage facilities in market gardening sites and open air markets could lead to dramatic improvements. It is important that these could be hired by the gardeners, middle women and retailers.

Market access. The investment in, and further development of, vegetable aggregation centres, cold storage and sale points throughout the city is essential for improved market access and revenues. Market gardeners, especially those in cooperatives, could be linked to the many available supermarkets in Kinshasa city. Ensuring hygiene and food safety would of course be the first precondition. Supermarkets may play a role to facilitate farmers' access to quality seeds and agro-inputs of known origin and may support crating, packaging and transport. However, for now, market gardeners are reluctant to deal with supermarkets, citing a lack of bargaining power and fraudulent practices of supermarket intermediaries.

Hygiene and food safety. Using seeds and inputs of known origin, proper land use of the market gardening sites, improved storage and conservation, and access to higher segment markets are all important elements and incentives for improving hygiene and food safety.

Capacity development and stakeholder collaboration. ANADEC, the national agency for entrepreneurship development, promotes small and medium enterprise development. ANADEC could provide technical support, such as training on entrepreneurship, business planning and management skills to market gardeners and other actors. Registration as small entrepreneur could be made more easy to improve access to small loans. The Ministry of Agriculture has the mandate to develop a vision, programmes and regulations for the agricultural sector. The Ministry could also create a professional platform to address challenges and harness opportunities in the urban vegetable business and call upon the collaboration between different public and private, formal and informal actors. So far, the Ministry has been largely invisible.

Programme development. DRC hosts many development projects, which could do much more to smartly support the metropolitan vegetable sector, including collaboration with informal actors of all kind. All the above-mentioned challenges and priorities are input for more comprehensive programme design. A first step is a good understanding how the urban vegetable sector really works, to prepare concept notes and proposals with the involvement of the main actors, formal and informal. Project and NGO support is not necessarily positive. It can even lead to mistrust and tensions, as was the case among market gardeners in Kimwenza, where farmers who were not a member of UCMK felt excluded. Cases like these clearly show that not only formal organisations should be considered.

References

- Agence National pour la Promotion des Investissements (ANAPI), 2019. Investir dans le secteur agricole en République Démocratique du Congo. Cahier Sectoriel. https://www.investindrc.cd/IMG/pdf/inverstir_dans_le_secteur_agricole_2019.pdf
- BBC, 2024. DR Congo country profile. <https://www.bbc.com/news/world-africa-13283212>
- Dumbi, S. & J.M. Alenda, 2022. Being vulnerable in a vulnerable activity: women market gardeners in Kinshasa. *Canadian Journal of Development Studies* 43, 4 (2022), pp. 593-610. <https://repository.ubn.ru.nl/handle/2066/250926>
- Minengu,JdD, I. Mwengi, and M. Maleke, 2018. Agriculture familiale dans les zones périurbaines de Kinshasa: analyse, enjeux et perspectives (synthèse bibliographique). *Revue Africaine d'Environnement et d'Agriculture*, pp. 60-69. <https://rafe-a-congo.com/admin/pdfFile/RAFEA-Article-Minengu-et-al-2018-ok.pdf>
- Nzolameso, M., 2010. Les sites maraîchers coopérativisés de Kinshasa en RD Congo. Contraintes environnementales et strategies des acteurs. Université Catholique de Louvain; Institut d'Etudes du Développement. https://dial.uclouvain.be/pr/boreal/fr/object/boreal%3A29698/datastream/PDF_01/view
- Institut National de la Statistique (INS), 2014. Résultats de l'Enquête sur l'Emploi, le secteur informel et sur la consommation des ménages / 2012. Rapport Global, Enquête 1-2-3. <https://ins-rdc.org/sites/default/files/Rapport%20enquete%20123.pdf>
- IFAD 2020. The Democratic Republic of the Congo and IFAD partner for better nutrition and resilience for small-scale farmers facing COVID-19 <https://www.ifad.org/en/w/news/the-democratic-republic-of-the-congo-and-ifad-partner-for-better-nutrition-and-resilience-for-small-scale-farmers-facing-covid-19>
- UCMK farmers, site survey 2020 and 2024 (unpublished UCMK data).



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