



# **Video Conferences on High Value Agriculture in Eastern and Southern Africa: *Urban Growth in Uganda, Opportunities and Threats for Horticulture***

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## **1. Present status of urban growth in Uganda and consequences for horticultural production to supply cities**

1. Uganda has a total area of 241,038 sq. km (24 million ha), of which 75 per cent is suitable for agriculture. The current population growth rate is 3.4 per cent per annum while urbanisation continues at a rate of 6% per annum<sup>i</sup>. The capital city Kampala occupies 197 km square, is reportedly growing at 5%, among the fastest growing in the region and the world, with its expected to more than double by 2025 (UN-HABITAT 2008). Kampala has about 40% of the total urban population and about 5% of the total population of Uganda with its slum dwellers estimated to be 85 to 93 percent<sup>ii</sup>. Some studies have reported that the density in Kisenyi, a slum in Kampala is 9000 persons per square kilometre, 10 times the minimum required for urbanisation<sup>iii</sup>.

2. The amount of fruit and vegetable produced in and around the urban centres of Uganda is difficult to quantify. Some studies<sup>iv,v</sup> have reported figures from 41% to 50% being the proportion of the land in Kampala city under some form of agriculture. The number of people was put at about 30% of the total resident population. Sweet potatoes and other tubers were found to grow in the city, of which 20% was consumed by the growers themselves and the rest is sold. Urban horticulture is important for generating income and producing income substituting food. This was found to be particularly correct in years of civil strife that disturbed urban areas most. Studies for Save the Children Fund and UNICEF concluded that because of urban agriculture supplementary feeding had not been necessary for infants in those years<sup>vi</sup>.

## **2. Opportunities Presented By Urbanization for the Horticulture Industry**

3. Urban dwellers are important suppliers to the horticulture market as they make available their surplus production from the small gardens they set to supplement their incomes. Demand for fresh fruit and vegetables (FFV), processed fruits and vegetables (PFV) and flowers and ornamental plants (FOP) continues to grow as the incomes grow and more population gets into the cities. One notable benefit of urbanization is the popularization of indigenous fruits and vegetables as the demand for them increases proportionately. They are more readily taken up by growers because they demand less investment in seed, are adapted to the local growing conditions and mature faster than exotic ones. These qualities are very important in the urban farming context where security of tenure is never guaranteed.

4. Market segments are beginning to emerge with more urbanization, based on ethnicity, income and lifestyle or occupations. Thus it is possible to set up and run a vegetable business specializing in northern region vegetables, health foods, organics or prepackaged products for the higher income groups. On the other hand it is now clear that construction workers can be targeted with specific products such as jackfruit and sugar canes, which are now taking root.

5. There are six recognizable types of outlets for FFV and PFV in Uganda, of which two are important also for FOP. First is the traditional wet and open air markets are the most important source of FFV to low-income urban consumers. Demand in these markets is high due to the low prices offered. The largest formal produce markets within Kampala have all evolved to become legal entities. They are Nakasero, popular with the rich and middle classes; St Balikuddembe (also known as Owino), for the middle and low income groups and Kaleerwe. Recently refurbished but smaller ones include Nakawa, Natete, Kalerwe, Kajjansi and Bugolobi.

6. Secondly and next in importance as outlets are the small groceries, kiosks, roadside vendors and nurseries found at strategic locations, majority of which operate without licence. This category is important for FOP. The third category of outlets are the informal food markets, unauthorised and un-gazetted and shifting market places along the roadsides, besides established formal markets or in open spaces they can find within residential areas. These markets are very popular with the low income earners and provide convenience when they are located in residential areas.

7. The fourth type of outlets are supermarkets, the most rapidly expanding segment in the food retail market sector around urban centres, with their convenient displays and wide selection in one location with other foods. There may be more than 100 supermarkets in Kampala alone. The latest available data estimated that supermarkets growth was at 9 percent per year (Weatherspoon et al 2003). They are a mixture of local and foreign owned companies, all offering wide variety of space, formats, and range of products from the horticulture sector. Several locally owned medium to small supermarkets spread out in all the suburbs and smaller towns and cities. Petrol stations run supermarkets along side their business, many of them locating the FFV and flowers as a booth outside the grocery store. Supermarkets are not yet in a dominant position with regard to FFV<sup>vii</sup>, commanding a market share of around 4% but growing rapidly. Nonetheless, they already exercise immense power in their relations with suppliers, probably due to the higher prices they offer and the fact that they are more predictable as customers than open market vendors. Typically they will pay 14 to 60 days after delivery and some will return unsold produce to the supplier as “breakages”. It should be noted that most small to medium sized supermarkets still have not taken FFV inside the capital intensive space, leaving them on the verandah out front. Some level of concentration is taking place as foreign operators seek to have larger networks in the country through mergers and acquisitions. Supermarkets are very important for FOP.

8. Most outlets have preferred suppliers who provide quality products on time at agreed prices. The preferred suppliers for open air market retailers are mainly traders (agents / brokers) and rarely are they farmers. Large supermarkets on the other hand prefer direct procurement from farmers in order to meet customers’ needs including consistent supply and quality, while big hotels and hospitals have agents who purchase the FFV mainly from produce markets and rarely purchase directly from farmers.

9. The fifth type is the mobile retail vendors, generally very small stock on a trolley. They reach the consumers at work on building sites and such other open air activities. They usually add value by processing and packing fruits like jackfruits, pineapples and sugar canes ready to eat. They serve the low income market mainly, and tend to have very low hygiene standards as they are not regulated.

10. Finally the urban market is served by the catering services that range from event organizers, offices & office canteens, hotels, restaurants, hospitals, prisons and educational institutions. They consume large quantities of FFV and are less demanding in terms of standards. It is possible for example to sell squashed and otherwise damaged fruit for juicing to this category at low prices. This category is perhaps the most important for FOP.

### **3. Constraints Faced By the Horticulture Industry in Meeting Urban Demand**

11. It is clear that increasing demand due to urbanization presents opportunities to growers. However there are still constraints that prevent them from taking advantage of this opportunity, principal among which is the scattered nature of production units. Although data on the logistical challenges for local traders is not available, a study done in 2008 showed that it takes between 37-58 hours to assemble a shipment of export quality produce, because exporters have to visit many small scattered farms, between 52-104, to obtain relatively small quantities of vegetables<sup>viii</sup>. A typical shipment involves deploying 13-16 people to organize it from the farms to the airport. Overall, considerable time and effort is required to make up relatively small shipments of vegetables, which pushes up the costs. Because of this scattered structure it is difficult to take advantage of scale economies at any level along the value chain.

12. Urban producers operate with a lot of hazards, especially because they tend to utilize former dumpsites, wetlands and abandoned waste land. The major potential health hazards associated with urban horticulture have been classified as physical, chemical, biological and psychosocial (Cole et al., 2003). The physical hazards may include injury from sharp objects, chemical hazards include exposure through contact of chemicals with the skin or inhalation of dust from contaminated soil and/or gaseous emissions and through ingestion of food crops contaminated with toxic waste from soil and wastewater. Psychosocial hazards may arise from insecurity due to unclear land tenure, loss of farmland, fear of theft and violence or overload due to long hours of work. Biological hazards may be due to parasitic worms, bacteria and vector-borne diseases, such as malaria parasites hosted by certain food crops with life cycles in humans and other media. Research has shown that vegetables sampled from Kampala's industrial area have higher concentrations of zinc, lead and copper than those grown at sites irrigated by municipal wastewater and solid waste from dumping sites. The high heavy metal content in these vegetables was attributed to multiple exposure routes (contaminated soil, soil splash onto leafy vegetables, absorption from aerial emissions, and direct contact with effluents during the rainy season)<sup>ix</sup>. Because they spend more time farming these dangerous sites than their male counterparts, women are more vulnerable to the hazards.

13. In Kampala, which is located along the shores of Lake Victoria with evidence of high precipitation exacerbated by climate change, surface run-off, coupled with fragile drainage systems has increased vulnerability of infrastructure, housing, social services and livelihoods. For example, between December 2006 and February 2007 there was serious damage to housing, schools and disruption of livelihoods, including flooding or washing away of FFV plots, from excessive rainfall.

14. Uganda has a wide array of food legislation and approved standards, supported by regulatory framework delivered through the Uganda National Bureau of Standards and the urban authorities in all towns. The main law that governs food safety is the Food and Drug Act of 1964, amended in 1993 to transfer the drug element to another law. As it is the current Food Act does not address technological developments in the food industry such as food additives and contaminants and packaging. However, other laws, principally the Uganda National Bureau of Standards (UNBS) Act (1983), appear to cater for food standards and hygiene sufficiently. Under this Act UNBS has the mandate to formulate and enforce

national standard specifications for commodities and codes of practice; promote standardization in commerce, industry, health, safety and social welfare and provide testing and calibration services to facilitate both regulatory and promotional roles. UNBS regulations on Imports Inspection and Certification (in combination with the food standards) are used to regulate the quality of foods manufactured locally as well as those imported into the country. Other supporting legislation includes the National Dairy Policy Act; the Public Health Act; the Dairy Industry Act and the Adulteration of Produce Act. The population at large appears to be ignorant of the quality of foods they should expect.

15. Certification costs are still very high and out of reach for most producers, cutting them out of the lucrative segments. Currently, UNBS is developing in-house capacity to enable it issue organic certificates and other quality assurance certificates in the fruits and vegetable sector.

16. Packaging is still not well utilized for FFV because the cost of materials is very high.

17. Due to the low income predominance in the market, consumers tend to be more price sensitive rather than quality sensitive, rarely responding to improvements in quality. This makes it unprofitable for many actors along the value chain to invest in quality improvements or extra services and new products.

18. Kampala City Council (KCC) and other urban authorities are constantly under pressure from politicians to create more space for stalls and kiosks for their political allies and cronies. This creates a plethora of vending locations with no proper facilities for garbage disposal and no lighting etc. Unfortunately it also means that the consumers are not able to see value in the products proffered in such circumstances, leading to resistance to price improvements that percolates down to the farmers. Sometimes the spaces are created right outside the gazetted markets and tend to operate in the evening or on weekends when there is heavy traffic of consumers. This raises another issue as the traders that occupy the stalls inside markets fail to sell because customers are waylaid by vendors outside the formal market.

19. Facilities available in the markets are very poor and not conducive to volume trading. This in turn means that inefficient undercapitalized small traders proliferate, that are unable to offer advantages to farm producers nor to consumers. The main inadequacies of facilities rotate around lack of handling equipment, storage, lighting, storage, sanitation and in terms of administration, security of trucks and cars, ownership, planning and growth are also questionable. On 25 February 2009, a fire ripped through Nakivubo Parkyard market and destroyed livelihoods of many vendors as there was no provision for fighting fires. The physical expansion of Kampala is supposed to follow the physical planning schemes produced over the years in 1912, 1919, 1930, 1972 and 1994 when a structural plan was made<sup>x</sup>. So the major problem in Kampala is not lack of plans but rather that plans, laws and regulations that exist on paper are so frequently undermined by people within government itself for both economic and political reasons, eroding any 'credible commitment' to order<sup>xi</sup>. This is the environment in which FFV and flower markets are set up and run in the city and it is replicated in other urban centres throughout Uganda.

20. Signed contract are very rare for suppliers of FFV or FOP, whether large or small. This means that long term arrangements back stream are unnecessary and therefore also rare. This is both a cause and effect of the scattered small scale, low input production typical of the horticulture system in Uganda.

21. Wholesale prices fluctuate widely, forcing farm gate prices to follow the same pattern, although the retail prices for most of the produce remains fairly stable. For example the price in August 2010 was around Shs4, 500 (US\$2) in August and then dropped to Shs2,000<sup>xiii</sup> (US\$ 0.9) per kilogram in November and set to drop even further as the season advances. Pineapples on the other hand have

instead registered increased market prices from Shs 2300 (US\$1) to Shs 3500 (US\$1.6) in the same period. There is no hard data to explain the inter commodity differences but we think that generally the more organized a commodity sector gets the more stable prices start to get. For example much of the mango crop is collected rather than farmed by small holders. This means there is hardly any organization when it comes to marketing, making the collected crop highly seasonal, with prices swinging widely. Wide price fluctuation means that although the urban market continues to grow, the smallholder is unable to maximize their benefit as long as they are not organized.

22. Sourcing of horticulture products and dominance of traders in Kampala markets follows some patterns that reflect the predominant sources of the produce in question. Thus mangoes and citrus will generally be traded by wholesalers from the east of the country while pineapples are dominated by traders from the central and southwest. This pattern is undesirable as it indicates precursor stages for cartelism in markets.

#### **4. Present management of the impact of rapid urban growth at policy level**

23. As a response to the experienced vagaries of climate change to city dwellers, the UN-HABITAT, under the SUD-Net, is supporting a Local Urban Knowledge Arenas (LUKAS) platform through which climate change information at city and national level will be exchanged<sup>xiii</sup>. Though not primarily aimed at improving the livelihoods of horticulture farmers as such, this initiative is expected to benefit them as a measure to protect the city from wide climate change will benefit their crops as well.

24. Horticulture is accorded rather low priority on the Agriculture Development Strategy and Investment Plan (ADSIP) of Uganda. Therefore there is no national program to enhance city supply of horticultural products.

25. The population secretariat is a government agency under the ministry of finance planning and economic development. Its mandate is to develop and implement the population policy of Uganda, incorporating all relevant parameters and working with key agencies such as the urban authorities. It is financed entirely by the government of Uganda using mostly donor funds.

26. The National Environment Management Authority (NEMA) is a semi-autonomous institution, established in 1995 under the National Environment Act as the principal agency in Uganda responsible for coordinating, monitoring, regulating and supervising environmental management in the country, including urban spaces.

27. Kampala's Structural Plan was revised in 1994 to include UA as a legitimate land use. To implement the new approach, an Urban Agriculture Unit was set up in the Production and Marketing Department of Kampala City Council (relocated from the Ministry of Agriculture). A participatory process for writing new by-laws was begun, and new regulations calling for occupancy licenses and registration for urban producers were created to provide more secure tenure to a greater number of people than before. With the support of the Nairobi based Urban Harvest the by laws are being circulated to the target groups.

28. The International Potato Centre is implementing a project entitled "Urban Agriculture in Kampala City Uganda: Health Impact Assessment and Options for Improvement", intended to carry out an environmental health impact assessment on urban households engaged in farming.

## 5. On-going strategy at national and regional level

29. About 30% of the combined population of Uganda, Kenya and Tanzania depend on Lake Victoria for their livelihood. A significant proportion of these inhabitants are to be found in the cities found around the lake. The Lake Victoria Cities Development Strategies CDS is an initiative of UN-HABITAT<sup>xiv</sup> implemented in the cities of Bukoba, Entebbe, Homa Bay, Kampala, Kisumu, and Musoma. Its objective is to follow a collective city vision and action plan to improve urban governance and management, increase investment to expand employment and services, and systematic and sustained reductions in urban poverty. The project, funded by SIDA targets to improve opportunities for all citizens in an inclusive manner especially the urban poor and women.

30. The NGO world is participating in addressing issues around urban agriculture (UA). One such example is the Kampala based Environmental Alert (EA), started in 1988, whose objectives centre on reduction of urban and rural food insecurity and poverty in sustainable ways. Another one is the Harare based Municipal Development Partnership for East and Southern Africa (MDP-ESA), started 20 years ago. Both NGOs have their own UA programs that aim at enabling deeper understanding of UA and providing mechanisms to enhance its benefits and while addressing its negative impacts. Their main achievements include training and raising awareness amongst local government practitioners and policy makers, promoting the integration of UA agriculture onto the main stream urban planning and development as well as publishing technical bulletins for farmers. Land access and tenure have been tackled as themes in their research and they maintain a database on UA. EA is funded by the European Union while MDP-ESA is funded through various sources including the World Bank and Resource Centres on Urban Agriculture and Food Security foundation (RUAFA).

31. Among the university sector there are several programs that are researching urbanisation and its socio-economic implications as well as environmental impact. Urban agriculture is very much on the research agenda at Makerere University and environmental studies are taught at other universities, including Mountains of the Moon University.

32. Already the UN-HABITAT and FAO have played important roles in bringing together various actors in the area of urbanization and food security and both have global mandates. The key emphasis should be on coordinating efforts that link urban populations, urban authorities and value chain actors that are linked to the rural areas in a shared vision to improve livelihoods beyond feeding and housing. It is therefore better that the two organisations each coordinate their efforts through the EAC, whose mandate encompasses more socio economic issues and is more able to bring in the local political actors' goodwill.

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- <sup>i</sup> **Nyakaana J B, Sengendo and Lwasa H** (): population, urban development and the Environment in Uganda: the case of Kampala city and its environs. *Faculty of Arts, Makerere University*
- <sup>ii</sup> **Goodfellow T (2010)**: 'The bastard child of nobody?': Anti-planning and the institutional crisis in contemporary Kampala. *Cities and Fragile States - Working Paper no. 67; Crisis States Research Centre*
- <sup>iii</sup> [http://whqlibdoc.who.int/monograph/WHO\\_MONO\\_62\\_\(chp17\).pdf](http://whqlibdoc.who.int/monograph/WHO_MONO_62_(chp17).pdf)
- <sup>iv</sup> **Egziabher A G, Lee-Smith D, Maxwell D G, Memon P A, Mougéot L A and Sawio C J (1994)**: Cities Feeding People: An Examination of Urban Agriculture in East Africa. *International Development Research Centre, Ottawa*
- <sup>v</sup> City Information McGill University, McGill Website.
- <sup>vi</sup> **Maxwell D G (...)**: The Household Logic of Urban Farming in Kampala
- <sup>vii</sup> **Bear M A and Goldman R H (2005)**: Enhancing Local Sourcing of Fresh Fruit and Vegetables in Uganda's Domestic Market
- <sup>viii</sup> **Ssemwanga, J and Sseruwagi, P (2009)**: Appropriate supply chain configurations for fruits and vegetables for export. Report WSSD Horticulture Development Project (fruit and vegetables).
- <sup>ix</sup> **Nabulo G (2002)**: An Assessment of Heavy Metal Uptake by Food Crops and Vegetables Grown in Kampala City Area. PhD Thesis, *Makerere University*.
- <sup>x</sup> **Nyakaana J B, Sengendo and Lwasa H** (): population, urban development and the Environment in Uganda: the case of Kampala city and its environs. *Faculty of Arts, Makerere University*
- <sup>xi</sup> **Goodfellow T (2010)**: 'The bastard child of nobody?': Anti-planning and the institutional crisis in contemporary Kampala. *Cities and Fragile States - Working Paper no. 67; Crisis States Research Centre*
- <sup>xii</sup> [www.monitor.co.ug](http://www.monitor.co.ug). The Monitor Newspaper. Publication date: 1<sup>st</sup> November 2010
- <sup>xiii</sup> Initiative: Adaptation to and mitigation of climate change in the City of Kampala, Uganda: Assessment. <http://www.unhabitat.org/downloads/docs/CCCIKampalaUganda.pdf>
- <sup>xiv</sup> **UN-HABITAT Lake Victoria City Development Strategies (CDS) for Improved Urban Environment and Poverty Reduction**