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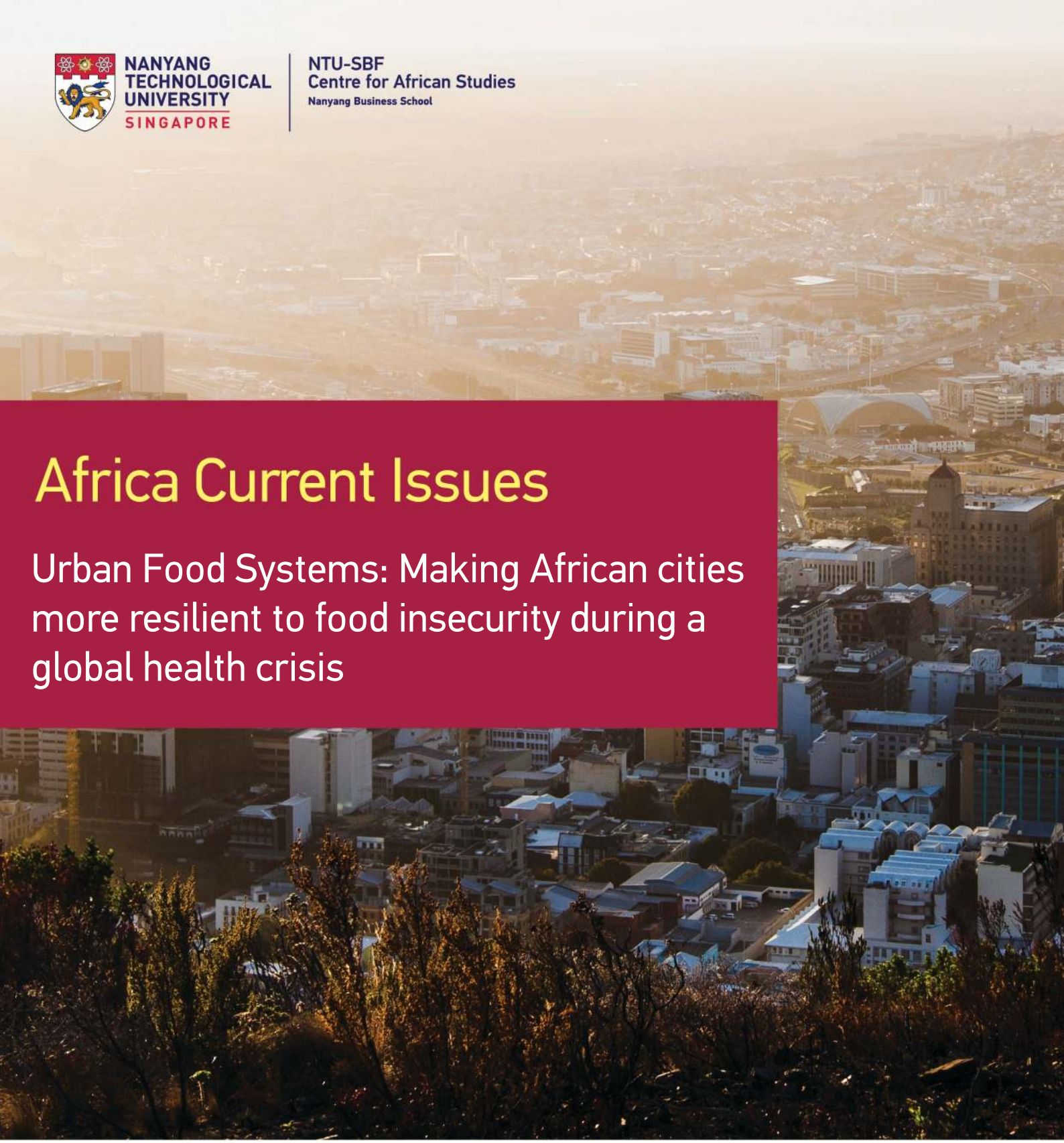

Africa Current Issues

Urban Food Systems: Making African cities more resilient to food insecurity during a global health crisis

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Urban Food Systems: Making African cities more resilient to food insecurity during a global health crisis

Introduction

Today's Covid-19 pandemic highlights the many challenges faced by urban residents around the world. Many governments seek to reduce infection rates by implementing restrictions to mobility. These have significant implications for the immediate future of work, leisure and travel, access to health care, and perhaps more importantly, food security and food systems, especially in urban areas. The world community, including national and sub-national governments, NGOs, and international organizations such as the World Bank, the UN World Food Programme (WFP) and Food and Agriculture Organization (FAO) express deep concern about the potential that the pandemic will lead to rising food insecurity. People living in countries that experienced food insecurity prior to the pandemic raise even deeper concerns. Many of these countries are on the African continent.

These international organisations seek to raise the visibility of this issue. In July 2020, the FAO launched its first "African CITYFOOD Month" campaign in collaboration with ICLEI - Local Governments for Sustainability Africa and with the support of RUAF Global Partnership on Sustainable Urban Agriculture and Food Systems. The African CITYFOOD Month emerges in the context of Covid-19 and the related food challenges. The event was developed under the auspices of the FAO Framework for the Urban Food Agenda. The CITYFOOD campaign focuses on four main initiatives: resilient food systems, nourishing our cities, sustainable food value chains, and business and innovation in urban food systems.[1]

The pandemic emerged just as 2019 closed, then raced rapidly around the world. As of August 6, 2020, Africa registered over one million infections (nearly one-third of which are currently active cases). These cases led to more than twenty-two thousand deaths. Countries with relatively urbanization high levels (urban population exceeding 50% of total population) and/or with high-density cities (such as South Africa, Egypt, Nigeria, Ghana, Algeria, and Morocco) top the list of total Covid-19 infection cases on the continent. For example, South Africa, with about two-thirds of its population currently residing in cities, recorded about 51% of all infections and currently active cases in Africa, followed at a significant distance by Egypt, registering about 12% of total cases. In the week between July 15 and July 22, the continent added an average of more than 13,000 cases per day.

Mainly due to its reliance on rain-fed farming and manual labour, the continent's agricultural productivity is relatively low, and Africa imports much of its food. One major concern is that if the current pandemic persists, many Africa states will face an extremely difficult question: How to save people from hunger while saving them from COVID-19? This will be a major challenge, especially for the urban population.

Pandemics can severely reduce or even halt personal mobility and the flow of goods. Mobility restrictions may lead to severe food shortages and food insecurity, because cities tend to rely on food from distant sources. To date, governments and NGOs around the world are able to maintain flows of food at close-to-normal levels. However, the future of food availability, accessibility and acceptability, especially to the urban consumer, depends on the severity and the length of the pandemic and the balance in the responses by governments around the world between safety and access to food.

This article proposes a systemic rethinking of food systems in Africa's cities. This would address urgent needs to improve food security, especially during pandemics or a natural disaster that restrict mobility; and to enhance urban resilience to negative shocks. An overview of the present state of food security and urbanization in Africa follows this brief introduction. The author then identifies the challenges facing urban food systems (UFS) on the continent, and proposes a re-imagination of a more resilient UFS design that would enable city residents to maintain food security, while complying with rules and restrictions implemented during a health crisis that may restrict the mobility of people and food.

The state of food security in Africa

Sub-Saharan Africa alone spent USD 46.9 billion for imported foods during 2018. Food represented more than 12% of the region's merchandise imports. While most SSA countries currently face rapid urbanization, development of urban infrastructure in many of these countries has not kept pace. Consequently, any health crisis such as the current pandemic that restricts the mobility of people and goods will have profound impacts on urban food systems that are already in a fragile state.

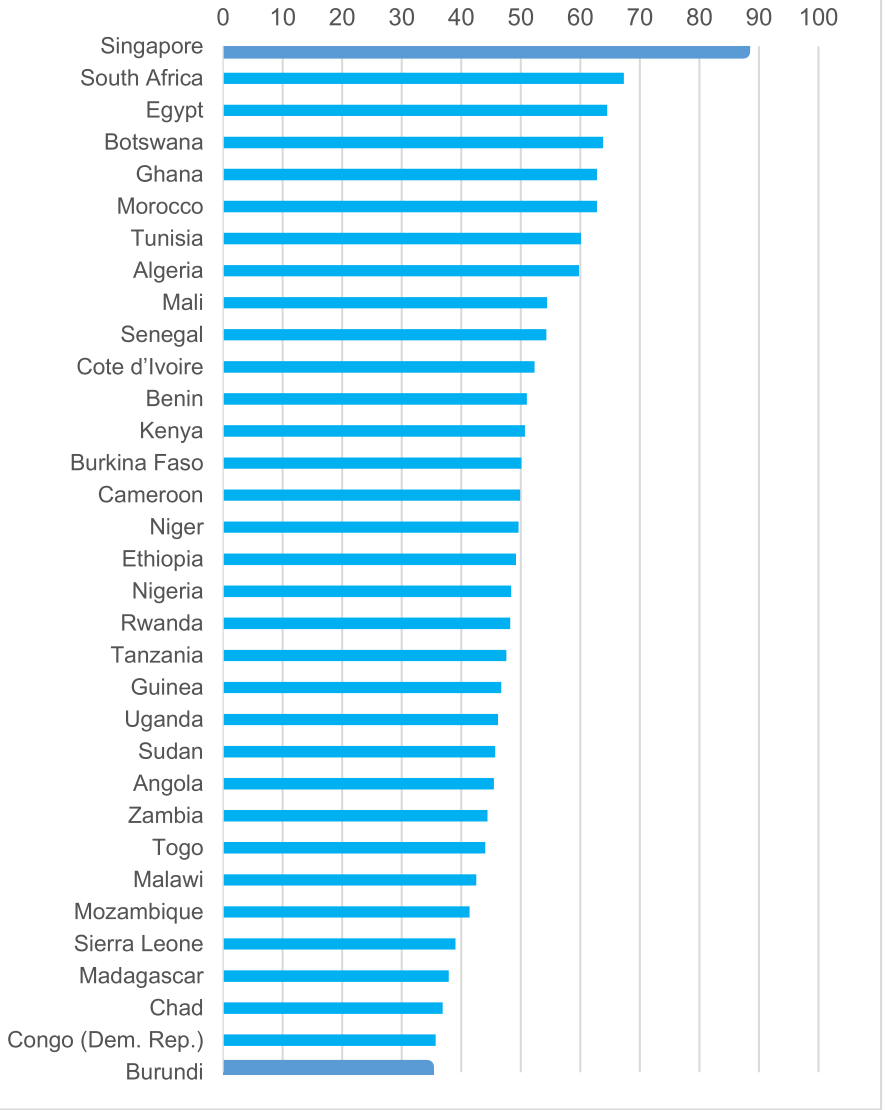
Food insecurity is endemic across many parts of Africa. The restrictions implemented by governments on the continent and around the world in response to COVID-19 may have significant implications for food availability, affordability, and in certain cases food safety. These measures include export bans, social distancing, and reduced mobility. Such measures, while reducing the spread of the virus, exacerbate food insecurity in the continent. For example, they often make it far more difficult to safely transport food from rural areas, where most food is produced, to cities for sale and consumption.

Meanwhile, illness, deaths and measures to avoid contamination may prevent businesses involved in food systems from operating at capacity. They may even force complete shutdowns. In the absence of access to well-maintained storage facilities and certification checks, the delayed delivery of perishable food due to lockdowns and morbidity can and will affect food safety.

The fourth annual Global Report on Food Crises (GRFC 2020) ranks the state of food security in 113 countries, including 32 of the 54 African countries (approx. 60%). It reports the population in crisis or worse (IPC/CH Phase 3 or above) rising to 123 million in 2020, up from the 112 million reported in 2019. 73 million of these reside in 36 African countries. These figures do not reflect the impact of the pandemic.

GRFC 2020 notes further that about "183 million people in 47 countries were classified in Stressed (IPC/CH Phase 2) conditions, at risk of slipping into Crisis or worse (IPC/CH Phase 3 or above) if confronted by an additional shock or stressor."[2] The GRFC report ranks only South Africa and Morocco among the top five African countries in all three indicators (food affordability, food availability, and the safety and quality of food). Sub-Saharan African countries tend to dominate the list of those with the worst food security performance. Of ten countries with the lowest GFS index scores (Figure 1), only Syria, Venezuela and Yemen are not from SSA.

Figure 1: Global Food Security (GFS) Index
(African countries compared to the country (Singapore) with the highest GFS index

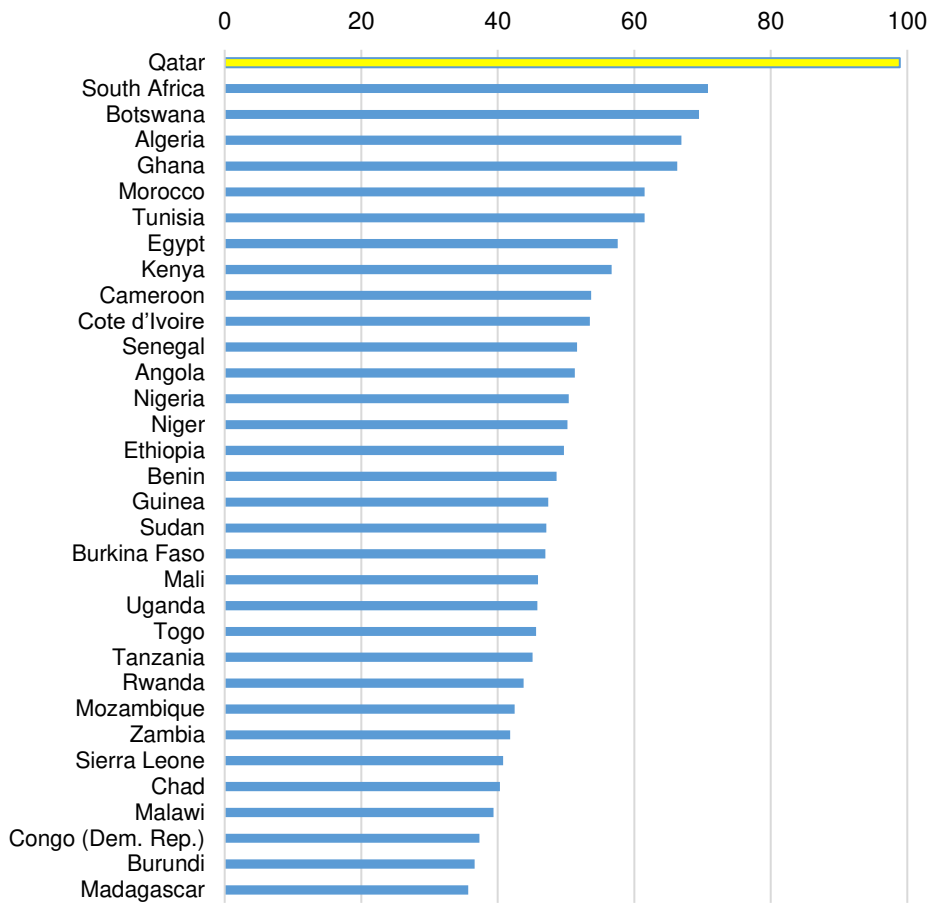


Source: 2019 Global Food Security Index (Accessed online on 6/29/2020: https://foodsecurityindex.eiu.com/)

Food affordability, availability, and safety performance in Africa, plus top performing country:

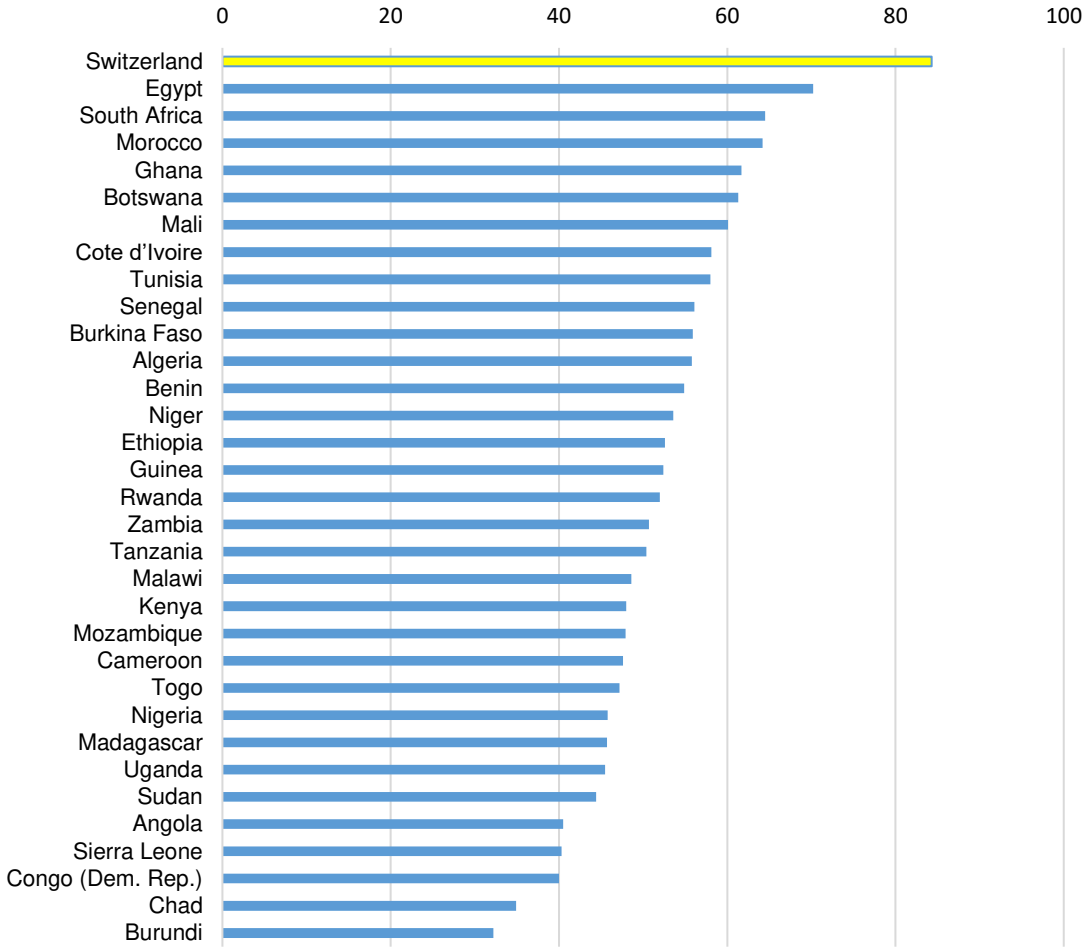
Africa also does not fare well in other GFS measures. The ten worst performers in GFS food affordability scores (Figure 2a) include eight SSA countries (Mozambique, Zambia, Sierra Leone, Chad, Malawi, DRC, Burundi and Madagascar). In terms of food availability, Angola, Sierra Leone, DRC, Chad and Burundi were among the ten countries with the lowest GFS scores (Figure 2b). Similarly, 80% of countries with the lowest food safety performance are in SSA: Cote d'Ivoire, Malawi, Togo, Sierra Leone, Guinea, Madagascar, Mozambique and DRC (Figure 2c).

Figure 2a: Food affordability (score / 100)



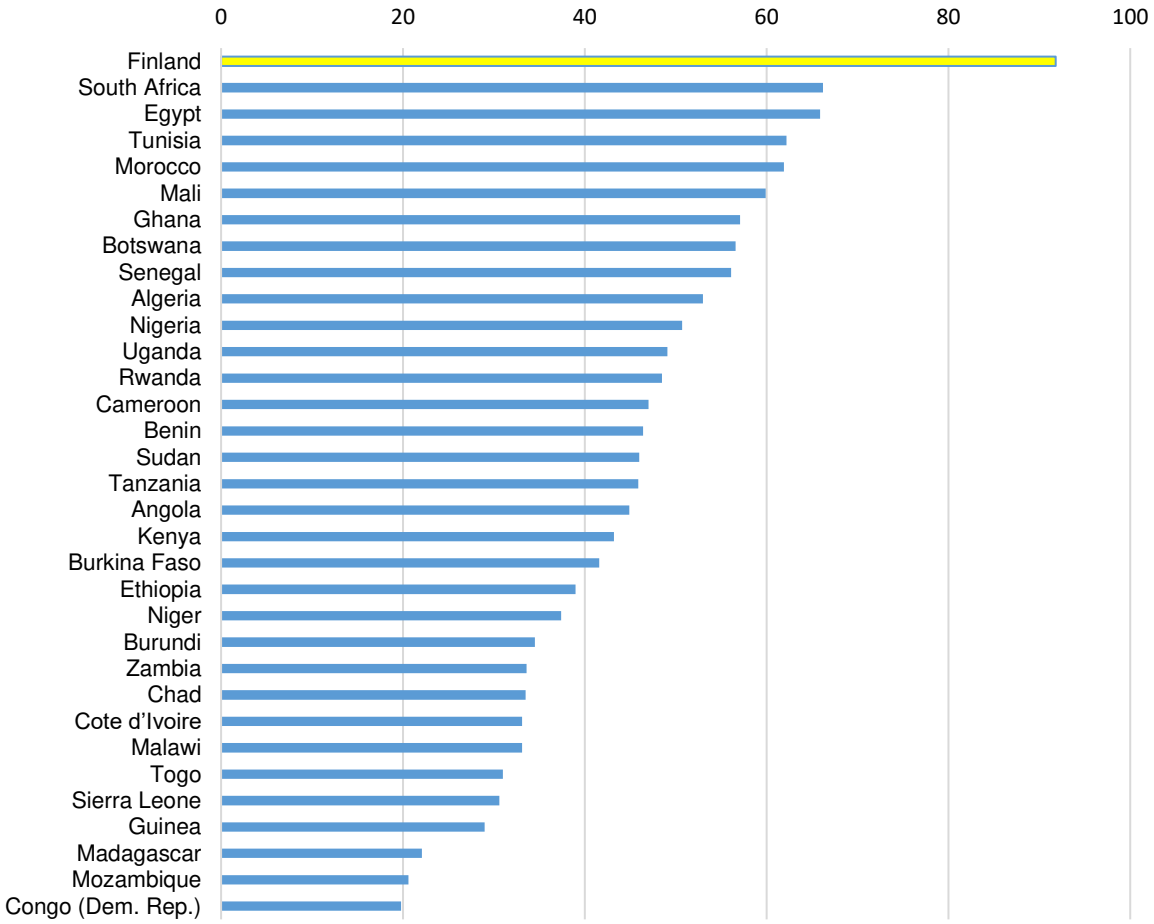
Source: 2019 Global Food Security Index (Accessed online on 6/29/2020: https://foodsecurityindex.eiu.com/)

Figure 2b: Food availability (score / 100)



Source: 2019 Global Food Security Index (Accessed online on 6/29/2020: https://foodsecurityindex.eiu.com/)

Figure 2c: Quality/safety of food (score / 100)



Source: 2019 Global Food Security Index (Accessed online on 6/29/2020: https://foodsecurityindex.eiu.com/)

The challenge to food security posed by the COVID-19 pandemic

Africa registered nearly 1,007,366 infections (of which about 30% are currently active cases), and more than 22,000 deaths as of August 6, 2020. Countries on the continent in which the urban population exceeds 50% of the total and/or with high urban density (such as South Africa, Egypt, Nigeria, Ghana, Algeria, and Morocco) top the rate of Covid-19 infections. For example, South Africa, with about two-thirds of its population residing in cities, currently has about half of all recorded infections in Africa. Egypt follows, with about 12% of the total African cases.

Africa is a net importer of food. Agricultural productivity on the continent is relatively low. Combined, these factors raise a major concern. If the current pandemic persists, how will countries in Africa face the need to save people from hunger while saving them from COVID-19?

Pandemic-related movement restrictions (even if temporary) bar many urban consumers from access to their regular food suppliers. Such measures include business closings, bans on public gatherings, and bans on open markets. Restrictions on movement among cities and between urban and rural areas make it difficult (or in many cases impossible) for urban consumers to access 'quality food' (e.g., fresh

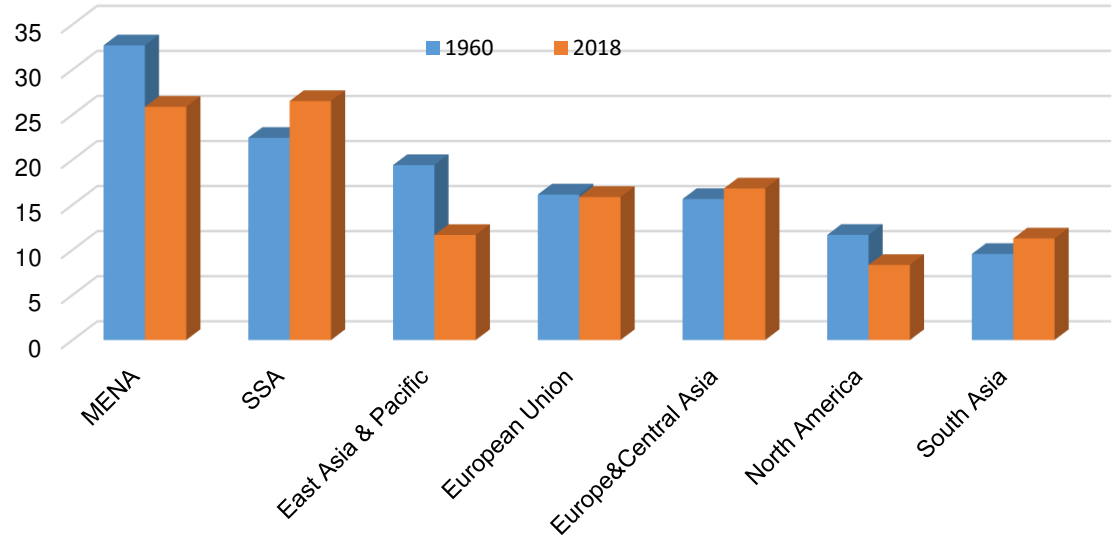
fruits and vegetables) from sources such as open markets, itinerant vendors, and stationary or mobile street vendors.

The current pandemic has the potential to worsen the food supply situation in Africa. For example, as a result of poor access to food and inadequate nutrition, the pandemic may cause further micronutrient deficiencies, thus weakening the immune system of the population and exacerbating the continent's health crisis. Urban food supply is a major challenge, especially in view of growth trends in urban population.

Urbanisation in Africa

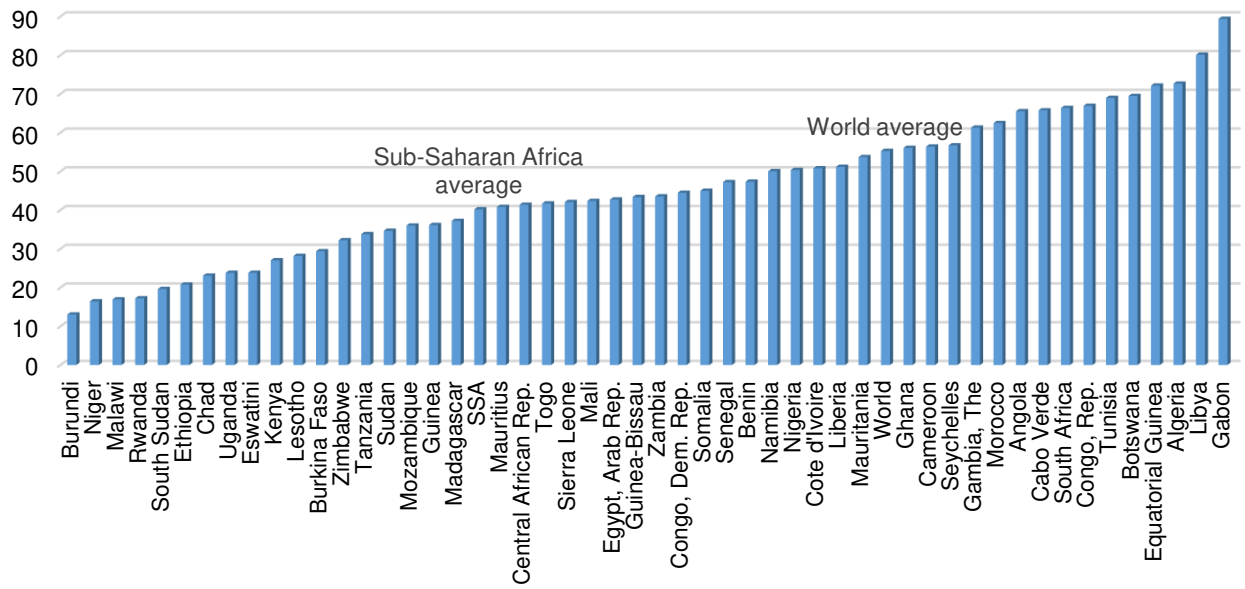
Population distribution in Sub-Saharan Africa shifted over the 1960-2018 period. The share of total population residing in the largest SSA cities grew more rapidly than in other world regions (Figure 3). This share declined dramatically in East Asia, North America, and the MENA region, by roughly 40%, 29% and 21% respectively. However, the urban share in SSA rose by 18.2%. This indicator varies widely within Africa (Figure 4). Mauritania experienced the most dramatic relative change, with its share of total population residing in the largest city increasing, from about 9% in 1960 to 51% in 2018 (an increase of 470%). Algeria reduced the share of its population residing in its largest city, Algiers, from about 26% in 1960 to 8.8% in 2018, a decline of 66%. This was due mainly to the rapid growth of its secondary cities.

Figure 3: Per cent of urban population in largest city



Source: Author, based on World Development Indicators database online (World Bank, accessed on July 1, 2020)

Figure 4: Urban population (% of total population) in Africa, 2018



Source: Author, based on World Development Indicators database online (World Bank, accessed on July 1, 2020)

With an annual urban population growth rate of 4.1% (compared to the world average of 2%), SSA is now the world's fastest growing region. By 2050, urban residents in Africa are projected to exceed one fifth of the world's urban population, from about 548 million in 2018 to nearly 1.5 billion people in 2050; thus increasing Africa's share in the world's urban population from 13% in 2018 to 22.3% by 2050.[3]

The need to rethink UFS in Africa

Food security among the urban poor is currently in a precarious state in many parts of Africa. This warrants rethinking food systems design. The deadly combination of food insecurity, rapid urbanization and an intractable pandemic makes such a review both critical and urgent. To help their people withstand severe shocks, African cities must design, develop and adopt resilient UFS. As each country faces unique challenges, the entry points to designing such resilient UFS will vary. However, the goals are identical: ensuring food availability, physical and economic accessibility, and acceptability for urban residents.

Resilient UFS must resist disruptions in food availability, accessibility and acceptability

A resilient UFS must protect city residents from sudden exposure to food insecurity during a health crisis. It must enable them to quickly recover from the effects of the disruption. It should be able to ensure access to a sufficient supply of affordable and acceptable food for all. A truly resilient UFS will function at near normal levels despite disruptions, and fully and rapidly recover once the disruption ends.

Government-imposed measures (as well as fears that lead to hoarding and price gouging) could easily exacerbate food insecurity in Africa. The potential issues include (1) inability to deliver food (and/or related raw materials) to the city; (2) inability to distribute food that is delivered to a central storage facility on to retailers and/or consumers due to labour shortage or mobility restrictions; (3) delays that compromise safety (or nutritional value) of food that is delivered to retail stores or consumers, (4) inability of members of low-income groups buy and store needed food quantities due to reduced income

and lack of access to credit; and (5) high levels of wasted food due to lack of refrigeration and other safe storage (note that these issues may also affect food safety).

A well-functioning and resilient UFS design is one that enables the host city respond accurately and rapidly when facing a crisis. A city should have sufficient urban or peri-urban production and storage sites to facilitate food supply. Production sites could include urban farms and owners' gardens, as well community gardens, and small-scale processing units. Initiatives such as Food Tank's 10,000 Gardens in Africa campaign should inspire others to advocate for similar solutions. During a pandemic, community gardens, in particular, can help provide food and income to low-income urban residents.

Urban food production in Africa

A food supply chain generally passes through stages: raw material sourcing, production, processing and packaging, storage, wholesale distribution, and retail redistribution to consumers. A severe shock and its related effects potentially compromises any or all of these stages. A pandemic that forces a lockdown or restricted mobility on urban residents could trigger a food crisis by impeding food availability, accessibility, and/or acceptability. The lack of urban food production can expose urban dwellers to food insecurity during pandemic-related city isolation or lockdown. Thus, urban food production capability remains a critical challenge to providing a resilient food system for cities.

Horticulture crops, which include vegetables, fruits, spices and medicinal plants, are expanding in urban and peri-urban areas in Africa. Since many horticulture crops are rich in minerals and vitamins, and tend to have high nutritional values, they are an important factor in enhancing both health and food security during a pandemic. They should be viewed as a major design element in improving urban resilience, especially during a health crisis that can be severely exacerbated by compromised immune systems.[4]

Urban community gardens in South Africa have a long history, and they contribute to its food security.[5] Capetown significantly expanded urban community gardening across a diverse range of sites. These range from rooftop gardens, small backyard plots, and vertical gardens to gardens in city parks or along a river bank.[6] The Siyakhana project, a food garden in the centre of Johannesburg, supports urban food security in that city. In a country with the highest number of COVID-19 infections and pandemic-related-deaths in Africa, reliable sources of good nutrition (especially fresh fruits and vegetables) are critically important.

In Egypt, Schaduf helps low-income Cairo residents create rooftop gardens. These improve access to food while helping green one of the most populous and densest African cities. In Ghana, urban farming became more popular following the government introduction of Operation Feed Yourself in 1972. This initiative empowered urban residents to raise crops on private urban land. Today, urban and peri-urban farming in large Ghanaian cities provides a variety of agricultural products, both for own consumption and for sale in local markets. The social and physical design of community gardens is a key design element for UFS.

However, many other cities on the continent produce little if any food. Kisumu County, the third largest city in Kenya, relies on other regions (both in and beyond Kenyan counties) to meet its needs for fish, vegetables and fruits, eggs, and chicken. The city has high "vulnerability in food insecurity especially during economic and political crises where the county is faced with severe food scarcity and high food prices or when transport systems are disrupted".[7] Thus, the current pandemic may lead to even more severe food insecurity in Kisumu County. This city is completely dependent on imported food from other regions, as are many other large cities in Africa.

Employment and UFS

Current evidence reveals that households that adopt urban agriculture may be able to support themselves with the food they produce on plots located either within their living area or on nearby plots devoted to this use. In such areas, urban agriculture is identified as the second most important source of income.[4]

Threats to the health of workers and government-mandated restrictions to personal mobility during a pandemic can lead to severe losses of household income. Depending on specific rules governing restricted mobility, urban food production may keep certain workers employed. In some cases, people are allowed to move inside their city or within their neighbourhood, but not beyond these boundaries. Morocco was divided into zones according to the incidence and severity of infections. Depending on their city zone, the mobility of residents ranged from reasonable to restricted. Under such a regime, urban food production (assuming access to needed fertilizers, seeds and other inputs) may provide jobs to farming households, and also to retailers such as convenience stores, street vendors and other businesses such as bakeries, cafes and restaurants that use agricultural products as inputs. As women tend to be over-represented in UFS activities, a vibrant UFS scene may also reduce gender-based income inequality.

Resilient cities need resilient food marketing and distribution

While supermarkets in Africa continue to expand their reach, urban consumers in many parts of the continent tend to rely on small-market vendors especially for fresh fruits and vegetables. Many of these vendors operate within the informal sector. Government-mandated restrictions in response to the pandemic severely affected this sector. Mobile vendors were banned from circulating within the city and between cities. This led to a general decline in fresh produce availability in some cities, while the limited supply impacted food affordability. Due to higher prices and travel distance, few low-income consumers currently buy from supermarkets. The crisis presents Africa's supermarkets with a unique opportunity to develop strategies and partnerships to help cities build resilient food systems. These might result from alliances formed by the supermarkets with formal (or informal) sector delivery agents, street vendors, small retailers, mobile payment platforms, and consumers.

Developing a resilient UFS demands strong and continuous collaboration among stakeholders

Stakeholders from the public and private sectors that have interests in a resilient UFS include national (and sub-national) authorities; research institutions; information agencies; food and related input producers; primary and secondary food processors; wholesalers; retail businesses; and urban consumers. As each of these stakeholder groups potentially benefits from the diffusion of resilient urban food systems, they must participate in and contribute to the development of this important innovation.

Challenges to building UFS resilience in Africa

Developing and sustaining resilient UFS will require African cities to overcome a series of challenges. Some of these challenges lead to untapped or emergent business opportunities in Africa's evolving urban food systems. In many cases, these will respond to young entrepreneurs with limited resources, as well as to long-established domestic and foreign entities. The challenges to resilient UFS include the following:

The infrastructure required to facilitate storage and delivery of perishable food is inadequate. A pandemic, and government responses to the resulting crises, can severely impact mobility and human contact. Food system resilience would improve with shorter supply chains and proximate sources of food, especially for perishable crops. Thus, a localized food system, with local actors and shorter supply

chains supplying food-related resources, becomes a crucial element for building a city's food supply resilience.

Poor roads leading to and within many African cities add costs to transporting food products and raise output loss levels. Lack of secure storage facilities increases costs for retailers and distributors, and thus for households. Lack of retailer and distributor access to refrigeration facilities also contributes significantly to loss and reduces their ability to handle large quantities. Lack of consumer access to refrigeration forces consumers to buy smaller quantities and can compromise food safety. Small storage and warehousing units can serve to diversify risk. Mobile storage and distributed small-scale warehousing can provide consumers with access to food within their districts.

Most of the region lacks a vibrant food processing industry. Agricultural food processing is more developed in only a few African countries such as South, Africa, Egypt and Morocco. This capability is found in proximity to urban centres. However, food processing capability is lacking in many other African countries and cities. Small-scale food processing (other than bakeries), in particular, should be developed with the goal to serve different parts of the city while diversifying and minimizing risk.

Informal activities are pervasive in urban food systems (UFS). In most African cities, a significant portion of UFS activities is in informal markets. Many consumers tend to buy their food from street vendors and local open markets. In North Africa's major cities, for example, a large share of urban consumers tend to prefer buying perishable food such as fruits and vegetables from open-air markets or street vendors rather than from supermarkets or city stores. Because informality may raise concerns about health safety, a health crisis can create a disproportionate public reaction to informal actors in UFS.

Digitisation of UFS data for use by stakeholders is inadequate or in many cases, non-existent. During a food-borne outbreak, government agents, consumers, retailers and others need access to food production and logistics data. Mobile devices have the capability to access such data. Local and regional food systems activity can be digitised to facilitate this. At the production stage, online services will promote production (remote guidance on safety, use of fertilizers and pest control, extension services, etc.). In the post-harvest phases, this will enable e-commerce and on-line supply channels for activities such as distribution and direct delivery to consumers. These data flows can contribute to UFS resilience.[8]

Many UFS lack access to automated technology for transporting, processing, and delivering food. Where human-to-human contact drives contamination risk, use of automated technology (such as drones and robots) can facilitate bypassing such contact. Zipline uses drones to deliver medical products and blood supplies to clinics and rural areas in Ghana and Rwanda. In a complete lockdown that bars human mobility, this model might apply to the delivery of inputs and food items in urban and peri-urban areas. During the current pandemic, Rwanda used a team of robots (five anti-epidemic robots, named Akazuba, Ikirezi, Mwiza, Ngabo, and Urumuri). These robots administered temperature checks, keep medical records of COVID-19 patients, and monitor patient status. Use of robots can substantially reduce infection risks, especially for medical staff. Such clever uses of robots in food production and delivery during a health crisis have the potential to generate many benefits for residents of African cities.

Overcoming these challenges will bring benefits to urban residents. In addition to positive impacts on health, food nutrition and employment, urban food systems can also help cities build stronger resilience against climate change and natural disasters (drought, floods, etc.). UFS will reduce the impact on the environment, as food will have to travel less far to reach consumers.

Conclusions

The challenge is clear. However, the path toward adoption of resilient UFS in Africa is far from obvious. The UFS model in Africa faces major challenges, as detailed above. Overcoming these challenges will be especially difficult for most sub-Saharan African countries. Fortunately, the international community now acknowledges the importance of the resilient UFS model. Four UN Sustainable Development Goals (SDGs 2, 3, 11 and 12) either explicitly or implicitly incorporate the need for more resilient and sustainable cities and urban food systems. FAO aims to ensure that people anywhere and everywhere are free from hunger and all forms of malnutrition. The agency includes urban food systems resilience in its vision for its 2030 Urban Food Agenda, as an integral part of the FAO vision of "resilient, integrated, sustainable and inclusive food systems."[9] A recent review of food systems trends noted that "Urban food systems are connected with several pressing issues, including urban population growth, resource scarcity, and climate change. To cope with these issues, urban food systems need to adopt more sustainable practices, as well as become resilient in the face of extreme weather events [and pandemics]."[10]

Promoting resilient urban food systems in Africa will require policy and governance environments able to incentivize UFS adoption. Carefully targeted investment and government support can help overcome many of the barriers. The most critical task will be to maintain strong collaboration among the many stakeholders with interests in this initiative. The key stakeholders include government authorities; research institutions; information agencies; food and related input producers; primary and secondary food processors; wholesalers; retail businesses; and urban consumers.

Each of these stakeholders will play roles in designing, developing and diffusing this innovation. All will benefit from the adoption of resilient urban food systems.

National, district, and city-level authorities must interact closely. They will need to establish and ensure effective implementation of the key policies and instruments (including subsidies and reward/penalty systems) needed to promote and govern UFS resilience.

Research institutions (including those linked to civil society) and universities must identify and promote measures that will enhance UFS resilience. They can discover and communicate evidence that will help other stakeholders understand and commit to the role of resilient UFS as a necessary element in urban resilience.

Information agencies (public, private and civil society) can help the actors access, understand, and assimilate knowledge generated from the field. Tapping information flows from authorities and other stakeholders is a vital part of the process of promoting UFS and city resilience, especially during a crisis.

Major food and food-related input producers can work with research institutions and information agencies to identify and communicate emergent issues. These may include potential barriers to UFS adoption, new technologies, and market trends.

UFS stakeholders also include processors, distributors, wholesalers, retailers and the consumers they serve. To increase adaptability, providers must rethink their roles in shared production-processing-distribution value chains. The capability to adapt will preserve food security should authorities restrict urban mobility, as during a pandemic.

Other key stakeholders include providers of global food and agricultural inputs (such as machinery, seeds, and fertilizers), suppliers of storage, transportation, and other logistics services, and supermarket chains. Flexible logistics systems offer capabilities to increase the adaptability of food distribution channels, storage facilities, testing, and packaging.

Adaptive capability involves preparing for, sensing, and responding to environmental change. These activities must be easily deployable, yet reasonably efficient. Preparation requires more than planning: it will also be necessary to test these plans, and to update them to reflect changes in the environment. To realise the goal of resilient and sustainable UFS, all stakeholders will need to collaborate. While such collaboration will certainly incur costs, it will also generate benefits for participants. The rise of its middle class and growing urban population will ensure Africa's position as an important market for their outputs.

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References

[1] About Urban Food Agenda: http://www.fao.org/urban-food-agenda/news-events/news/en/

[2] Global Report on Food Crises 2020: https://igad.int/2410-the-global-report-on-food-crises-grfc-2020

[3] United Nations, Department of Economic and Social Affairs, Population Division (2019). *World Urbanization Prospects: The 2018 Revision (ST/ESA/SER.A/420)*. New York: United Nations. https://population.un.org/wup/Publications/Files/WUP2018-Report.pdf).

[4] Ifeoluwapo Amao (2020*)*. "Urban Horticulture in Sub-Saharan Africa", Chapter in Urban Horticulture - Necessity of the Future Edited by Shashank Shekhar Solankey, Shirin Akhtar, Alejandro Isabel Luna Maldonado, Humberto Rodriguez-Fuentes, Juan Antonio Vidales Contreras and Julia Mariana Marquez Reyes. Available at: https://www.intechopen.com/books/urban-horticulture-necessity-of-the-future

[5] Stephanie Nieuwoudt (2008). South Africa: Community Gardens Contribute to Food Security. http://www.ipsnews.net/2008/12/south-africa-community-gardens-contribute-to-food-security/

[6] http://blog.sa-venues.com/provinces/western-cape/cape-town-community-gardens/

[7] FAO (2019) Taking action to address food systems in Kenya's Cities. http://www.fao.org/kenya/news/detail-events/en/c/1206703/

[8] Guiyin Shen, Xiaojing Liao (2020). Response measures to ensure the urban food supply system and farmers' livelihoods under COVID-19: Experiences from Jiangsu Province, China (Translated by Jia Ni and Shulang Fei). http://www.fao.org/in-action/food-for-cities-programme/news/detail/en/c/1276460/

[9] FAO. 2019. FAO framework for the Urban Food Agenda. Rome. https://doi.org/10.4060/ca3151en (http://www.fao.org/3/ca3151en/CA3151EN.pdf

[10] Leticia Canal Vieira, Silvia Serrao-Neumann, Michael Howes, Brendan Mackey (2018). Unpacking components of sustainable and resilient urban food systems. *Journal of Cleaner Production* 200: 318-330.

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