# FOOD INSECURITY AND THE GIG ECONOMY

## *Global and East African Insights*


*Photo: UN Photo/Albert González Farran*

## INTRODUCTION

Humans are living in trying times, brought on mostly by their own hands. Increasing climate-related devastation, strange pandemics (e.g., Zika, Ebola, COVID-19 and Monkeypox), and wars that mostly support weapons-producing nations and the corporate/political elite have led to a widening of economic disparity and human suffering. Probably the most serious of humanity's unbridled obsessions for more is food. The United Nations Environment Programme (UNEP) estimates that more than 30 per cent of food is wasted in the United States and Europe alone. But has production met increasing consumption patterns? Some wealthy nations like the USA and China have increased crop yields. However, medium- to long-term yields are on the decline, affecting output and food price and severely impacting food security and poverty in developing nations. A recent study by Hasegawa *et al.* (2021) found that Sub-Saharan Africa and South Asia are most at risk of hunger over the next 30 years, resulting from uncertainties in extreme climate impact. Nevertheless, most reports will have us believe that the percentage of poverty and hunger has decreased.

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Positive statistics should be contextualised; Africans, for example, have managed to reduce poverty from 54 per cent in 1990 to 41 per cent by 2015, but the number of Africans below the poverty line increased from 278 to 413 million in the same period!

Whilst global food reserves may alleviate shortages if spread equitably, regional distribution is disparate from local demand. For example, Africa imported 85 per cent of its food between 2016 and 2018. In the aftermath of the pandemic, supply chain disruptions have caused inordinate price increases, leading to situational poverty even for the previously well-off. Another alarming statistic is that Africa experiences up to 50 per cent of post-harvest losses (PHL) on fruits and vegetables, mainly because of weak infrastructure in getting food to market. The pandemic has exacerbated these losses, resulting in value chain fractures for logistics (e.g., availability and price of fuel), financing (tightening of access to credit), and labour (mobility restrictions).

The labour disruption, in particular, has posed a significant supply chain hurdle. Pandemic mitigation strategies of lockdowns and quarantines have caused significant and abrupt shifts in food supply chains and slowed trade, forcing companies to lay off thousands of workers globally. For example, the International Labour Organization (ILO) reported that 81 million jobs were lost in Asia in 2020. This has fuelled a fresh take on the gig economy workforce paradigm. A 'gig' was an informal reference to a musician's live performance or a temporary job. The gig economy, by extension, can be understood as a marketplace of services delivered by part-time or temporary workers paid by tasks rather than on long-term contracts and mostly arranged through digital platforms. Typical examples include Grab in Southeast Asia, Uber, Freelancer or Fiverr, all linking customers with free agents for a fee. The 'Great Resignation', spurred on by unprecedented layoffs from COVID-19, seems to have encouraged employees to become free agents and establish a new version of job security. More than four million Americans quit their jobs every month, from May 2021 to April 2022. They cited low pay (63 per cent), lack of growth opportunities (63 per cent) and feeling disrespected at work (57 per cent).

The most noticeable impact of the gig economy on food is the delivery service, giving households access to a variety of cuisines at their doorstep. But can the gig economy relieve some of the challenges of food insecurity? Several examples of successful integration of these two concepts exist. This article highlights the Ethiopian and Kenyan cases, the barriers to entry, and some recommendations for accelerating the process and ensuring long-term sustainability in the region.

## EMERGING GIG-BASED AGRARIAN DEVELOPMENT: THE ETHIOPIAN CASE

Developing economies with agribusinesses are experiencing increased urbanisation, improved infrastructure, and enhanced food supply chains (AGRA, 2019). Small holders to large holders across Sub-Saharan Africa rely on domestic labour to cultivate both staple and export foods. Ethiopia has the third largest population in Africa, and 75 per cent are employed in agriculture. The sector has managed substantial growth in its cereal market, but vegetable production has not been as successful. Vegetables are not frequently consumed in the nation because of durability and supply issues related to storage challenges, water shortages from climate change, and labour shortages leading to increasing prices.

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The Central Rift Valley in Ethiopia is critical to national vegetable production as it supplies the capital, Addis Ababa. Contractors are required here for irrigation, land preparation, seeding, fertiliser, harvesting and transportation to the market, providing gig-based support for decades. However, disruption from the pandemic, political unrest, drought and limited access to information have restrained the sector's growth and effectiveness. Smallholders rely on their participation in cooperatives, providing them with finance and other inputs. Medium-scale farmers, on the other hand, have unique challenges.

### *Gig Sector Supporting Medium-scale Farmers*

Medium-scale farmers have trebled their land tenancy in the region since 2012, with output at an estimated USD52,000 per annum per farm (averaging 5 hectares), or 60 times the local GDP per capita. The pandemic caused substantial delays in upscaling since producers could no longer deliver to high-demand zones like the capital. Access to raw materials like specialised seeds and fertiliser has been delayed, increasing production costs. These farmers rely on hired labour for production, contracting with skilled labourers on a gig basis through mobile phones. This gig workforce has been successful in providing the skills to move yield to market but has not been able to maximise the use of technology or digital platforms. Internet penetration in Ethiopia stood at 25 per cent in Q1 2022 (Kemp, 2022), the average for Sub-Saharan Africa (excluding Kenya, Nigeria and South Africa). However, internet use increased by 5 per cent from the previous year, indicating substantial potential in introducing gig-focused digital platforms for the nation. Furthermore, 35 to 38 per cent of Ethiopia is Muslim, indicating that these platforms should offer Shariah-compliant solutions to succeed.

## KENYAN SUCCESS STORY?

Internet use in Kenya is above 83 per cent, far exceeding the African average. As an agrarian-based economy (employing more than 80 per cent of Kenya's rural populace), Kenya is well established in agriculture fintech (agritech) platforms that support gig services. Several successful examples (Figure 1) provide market information to farmers and investors, information on farming equipment, farming finance, and linking freelance workers.


**Figure 1:** Example of Successful Agriculture Gig Services
*Source: Author's own based on various sources*

However, rural North-eastern Kenya is predominantly made up of Muslim farmers that cannot engage with conventional digital finance platforms due to *riba* and other prohibitions. For this region, which borders Ethiopia, there is again limited access to gig-based solutions that comply with the Shariah requirements. Shariah-compliant needs-based solutions are expected to enhance the supply chain and reduce food insecurity in this vulnerable region.

## Recommendations

The Ethiopian agricultural sector has faced constant disruption long before catastrophic shocks like COVID-19.

Its reliance on the sector is based on food insecurity. The disruptions in international supply chains from the pandemic have further exposed Ethiopia and the most vulnerable, food import-reliant nations across Africa and Asia. Ethiopia's neighbour, Kenya, provides a good example of a technology-based gig economy whilst sharing climatic and cultural similarities in the North. However, no Shariah-compliant solutions exist in both countries with significantly large Muslim populations.

Effective gig-based digital platforms for the region may consider the solutions described in Figure 2.

Without these solutions, humanitarian disasters in the region will continue their cyclical nature, resulting in more severe continental and intercontinental repercussions from food insecurity. Supporting the inextricable link of food security with the gig economy in vulnerable regions requires sincere efforts in infrastructural development, enhancing technological literacy, realigning political will with social impact, and focusing on value-based solutions. It is time to get our act together. The world needs better solutions.


**Figure 2:** Proposed Solutions for Effective Gig-based Digital Platforms
*Source: Author's own*

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