

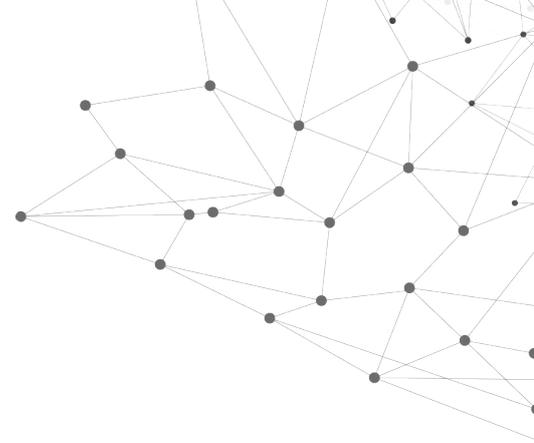


# Beyond Covid 19: How Do We Feed Our Cities And Industries?

An Agricultural Insight

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# Executive Summary

This article aims to highlight the challenges and implications of COVID-19 in the agricultural sector in Nigeria. Using current industry trends, consultations with various stakeholders across value chains, and present policy implications, a forecast of the expected challenges to the agricultural sector with an emphasis on food security has been compiled. The forecast breaks down the effects of the pandemic on the agricultural sector in the short, medium and long terms, to identify viable opportunities and proffer innovative solutions to remedy the challenges that may arise in the event of a prolonged pandemic.

The main challenges identified in the report include; logistical challenges, Farmer apprehension as it relates to the planting season, the purchasing power of customers being negatively affected, inflation on agricultural inputs, and security threats to agricultural assets. Some key innovations recommended include; e-commerce, mobile markets/dispatch, logistical partnerships/digitized logistics, cold chain systems, smart farming, urban farming, agricultural asset security, agrochemicals production, and standardized consumables.

The report shows that the COVID-19 epidemic while having implications on socio-economic activities, has made food security a top priority. Providing ample opportunities to explore sustainable remedies to the challenges facing the agricultural sector in Nigeria.

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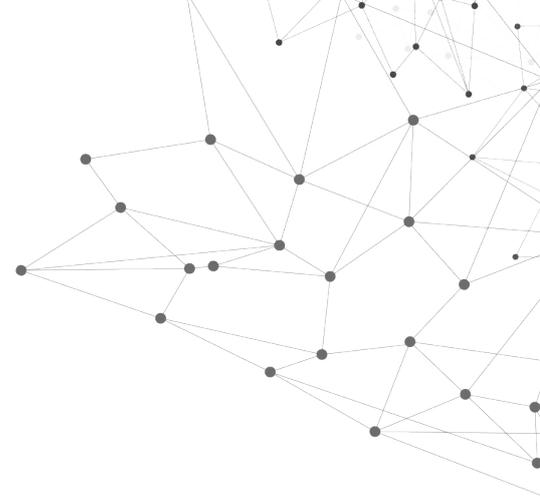
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# Introduction

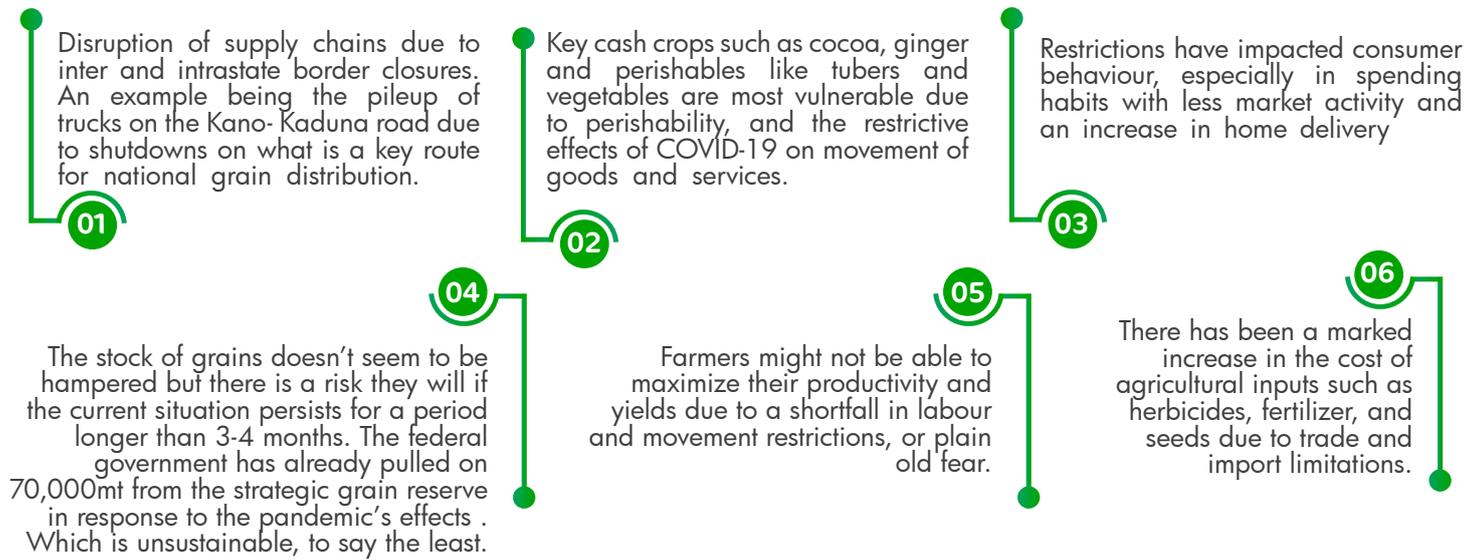
This article aims to highlight the challenges and implications of COVID-19 in the agricultural sector. Using current industry trends and insights to forecast the impact of the pandemic on agricultural value chains and consumer behavior in the short, medium and long term. Most importantly, this report proffers actionable innovations and systems that can be adopted and scaled up to negate the effects of the pandemic on food supplies to urban areas and industrial processors in Nigeria.

## Where We Are Now

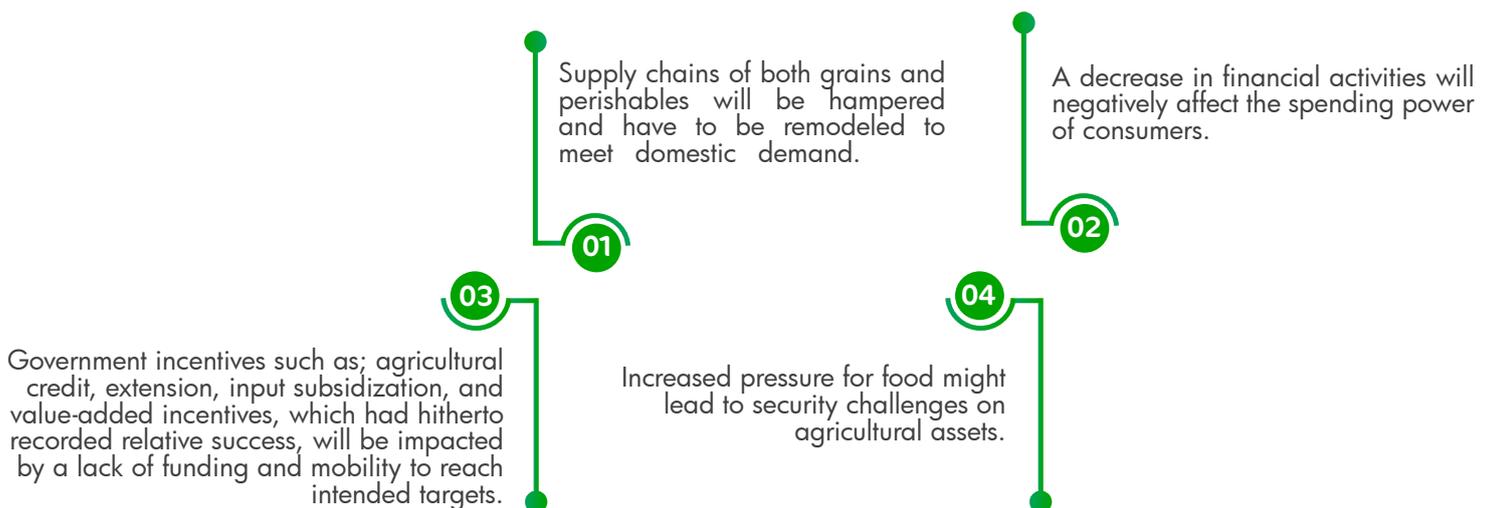
The impact of COVID-19 on the agricultural sector has been mainly felt on commodity supply chains, characterized by logistical challenges in sourcing inputs and outputs. A sustained period of restriction of movement however, will negatively impact the impending planting season if farmers' access to labor and inputs such as seeds and fertilizer are compromised. This may lead to production shortfalls and inflation.

Using current industry trends, consultations with various stakeholders across the value chains, and present policy implications, a forecast of the expected challenges to the agricultural sector with an emphasis on food security has been compiled. The forecast breaks down the effects of the pandemic in the short, medium and long terms to identify viable opportunities and proffer innovative solutions to remedy the challenges that may arise in the event of a prolonged pandemic.

# Short term (1-3months)



# Medium-term (3-6months)



# Long term (6-12months and beyond)

There might be an increase in the cost of living in urban areas and a rethink of supply chain dynamics might have to be implemented.

01

Lower yields of staples such as rice, corn, sorghum, soy, groundnuts etc. due to a decrease in planting.

02

The government might be forced to reverse its border closure for essential goods.

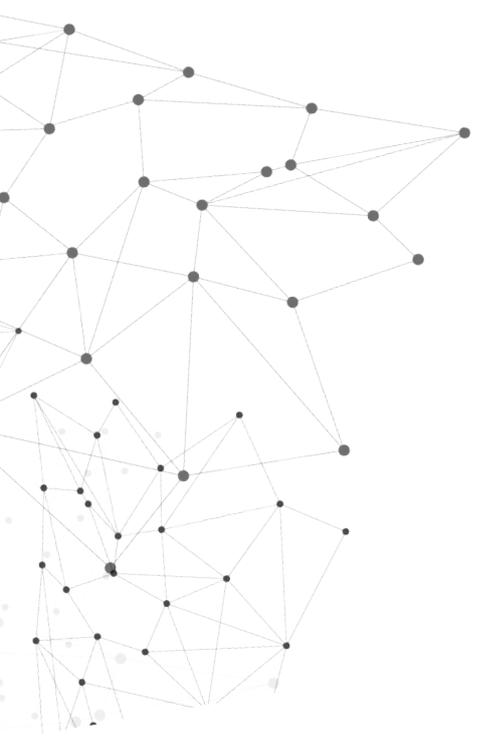
03

There might be a reversal of rural-urban migration with lower income earners heading back to rural areas to meet their daily needs. While not necessarily disadvantageous to agricultural production, there could be shortfall in low-level services and consumers in urban areas and subsequent inflation.

04

Rural supply chains devoid of funding and other incentives, might not be able to cater to both industrial and domestic consumption with a real danger of supply shortfall, putting a lot of urban dwellers in danger of food insecurity.

05



# Challenges



- **Logistics:** Movement of agricultural produce from predominantly rural farms to urban consumers and peri-urban processors are already negatively impacted. This is accompanied by a noticeable increase in the cost of transporting goods and delivery time, the risk to perishable goods, and the reluctance of drivers to enter COVID-19 hotspots. There is also a noticeable challenge in accessing agricultural inputs such as fertilizer and seeds by rural farmers.
- **Farmer Apprehension:** The restrictions on movement will affect farm activities specifically the impending planting season. While there are protective measures by the Government such as the planned designation of farming as an essential service, the psychological effects of fear of contagion might still prove a barrier and hamper expected yields.
- **Purchasing Power of Consumers:** Even at the best of times, it's estimated that 69% of Nigerians struggle daily to put food on the table<sup>1</sup>. With the triple effects of the pandemic, oil price decline and inflation (currently 12.20%)<sup>2</sup> due to fiscal and monetary limitations, there is a danger that with a persistent epidemic, consumers might have very little purchasing power. Putting an already vulnerable, undernourished and malnourished population in real threat of starvation.
- **Inflation on Agricultural Inputs:** An observed challenge posed by the effect of the pandemic, is the noticeable increase in the cost of acquiring farm inputs especially fertilizer and seeds. Stemming from the increased cost in money and time to get inputs to farmers. A scenario where the cost of farm produce might increase isn't necessarily advantageous to farmers as the cost of inputs will also increase. There is a great threat of inflation in the Agricultural sector on both inputs and outputs.
- **Security:** Before the COVID-19 outbreak, one of the most inherent challenges faced by the agricultural sector; was the security of agricultural assets which negatively affected investment in the sector. With frequent farmer-herder clashes, terrorism, and banditry making access to huge swathes of arable land inaccessible and putting 4million people across 16 states and the FCT in food and nutrition insecurity<sup>3</sup>. The increased pressure due to restrictions on movement will put more strain on agricultural production, securing agricultural installations and investments is a challenge that has to be urgently addressed.

# Opportunities: A Time To Innovate

While the pandemic by all human standards is a catastrophe especially with the loss of lives and sudden change in socio-economic practices. Like any other crisis in human existence, it provides us with new opportunities to innovate and make positive alterations to how we were operating.

In Nigeria, this might finally be the chance to accelerate our agricultural revolution as consumer focus moves from luxury goods to essentials like food and water. The Agricultural sector had witnessed some decent strides in the right direction with laudable government incentives such as; credit funding, import tariffs/bans, import waivers on agricultural inputs, Presidential Fertilizer Initiative (PFI), Agricultural Promotion Policy (APP) and private sector participation (AFEX, Farmcrowdy, dairy industry Investments, rice producers, etc.). However, there's been a reluctance to depart from the norm especially with consumer preference; as observed with the low acceptance of locally produced rice, the outrageous prices of imported substitutes notwithstanding.

The fallout of the pandemic thus presents a unique opportunity for all industry players to adopt homegrown innovative solutions to the underlying problems plaguing the industry as well as tap into the gaps created, especially in urban markets. Some of the areas viable for such interventions include but are not limited to:

- **E-Commerce:** The risk of contagion has already impacted consumer behavior with more people open to the idea of carrying out transactions online than ever before. This is a great opportunity for farmers, retailers and suppliers to engage in e-commerce and mobile payments to meet increasing consumer demand.
- **Mobile markets/ Dispatch:** There exists an opportunity to tap into mobile markets which could be trucks that move from different locations within cities on specific dates to deliver available products to consumers. This will be very helpful for lower-income earners who might not be able to afford e-commerce services. There is also a marked opportunity for dispatch services for small quantities of goods delivered to households in hard to reach areas..
- **Logistical partnerships/Digitized Logistics:** As a friend once said "have you noticed there is a Coca-Cola in every hamlet in Nigeria no matter the situation on the ground?" With the cost in time and resources for moving goods expected to markedly increase if the pandemic persists, there is a huge opportunity for logistical partnerships

between agricultural companies and established brands like Coca Cola to move goods in mostly empty returning trucks to bridge logistical gaps. Another way to assuage logistical challenges may be in using an “UBER” model for truck hire. Using a centralized hotline of logistic companies to hail nearby available trucks to avert backlog of goods. The logistical challenges will however be ideally assuaged if and when the government can provide rail services across the country in the long term. This can be facilitated by applying concessions to private stakeholders using Private-Public Partnerships (PPP).

- **Effective Cold Chain systems:** Cold chains are an effective way to manage supply disruptions especially for perishables such as meat, dairy and vegetables. Situating large scale cold chain systems in urban areas can provide a buffer to the shocks of supply shortfalls. This presents a significant opportunity for private sector participation in the identified value chains.
- **SMART Farming:** Smart farming is the leveraging of advanced technology for tracking, monitoring and analyzing farm operations<sup>4</sup>. With an anticipated and advised decrease in human day to day interaction, the pandemic presents an opportunity for implementation of such technologies as; Drone technology for mapping and monitoring; and farmer databases which will reduce the need for human interaction in extension, credit vetting, and input distribution. Just to mention a few.
- **Urban Farming:** With anticipated pressures on rural production sources, the most sustainable means of feeding our cities, in the long run, is the use of urban farming techniques. Urban farming is the use of urban spaces leveraging innovative technology to maximize output with very limited land resources. Some of these methods include Hydroponics, Vertical farming, urban greenhouses, rooftop gardens, etc. These techniques are easily applicable and easy to scale up, as they use; public spaces, containers, rooftops, abandoned buildings and even backyards for production. Urban farming is already practiced by many forward-looking cities. A great reference case for urban farming is Fresh Direct<sup>5</sup> , an Abuja based business that produces fresh vegetables on a commercial scale from containers using vertical farming techniques. This can be explored by the government as part of an urban policy or by private sector players.

- **Agricultural Assets Security:** One of the impacts should we have a prolonged shutdown might be the security strain on agricultural assets across an already volatile country. With increased desperation for food items in a worst-case scenario, there might be a hike in robberies and attacks on farms, storage facilities, trucks, and warehouses. A unique opportunity might arise out of this in the provision of Agricultural asset-specific private security, considering that it will be impossible for the government to secure all assets nationwide. This could be a very lucrative venture if properly harnessed and could encourage investment in the Agricultural sector.
- **Agrochemicals Production:** With global production and supply chains hampered by the pandemic, key inputs such as agrochemicals which have been traditionally imported from Asia and Europe are already adversely affected. This provides an opportunity for local manufacturers to bridge the supply deficit. Ensuring that key agricultural inputs such as herbicides, pesticides, and fertilizer, will have more robust domestic value chains.
- **Standardization of Local Consumables:** Nigerians have over the years shown a great appetite for consumption of imported goods. While this can be attributed to various underlying factors, it will not be remiss to say the standard of local alternatives plays a huge role in shaping this trend. While it is true that the cost of local production has hampered the competitiveness of home-made goods, the impact of the pandemic offers a huge opportunity due to already manifesting consumer behavior shifts. With border closures, fear of contamination from foreign goods (especially from China), and less import activity, there is a gap to fill for most consumables which foresighted domestic producers should be exploring. The cache, however, is that they will have to improve on their standards to penetrate a market that is used to luxury consumption, which in turn will improve the general standard of Nigerian made produce and could even see the country become an active player in the export of consumables on the African continent.

## Conclusion

While taking into full consideration the devastating effects of the pandemic on lives, and socio-economic wellbeing in the short, medium and long term. There are various opportunities a prolonged shutdown might portend for the agricultural sector. This is a time to identify value chain gaps, develop more robust homegrown solutions, and embrace the application of sustainable systems to harness domestic agricultural potential. A sector that was crying out for acceptance and implementation of innovation on all fronts might have just found an unlikely accelerator in the COVID-19 virus.

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