

Influence of Covid-19 Pandemic on Agricultural Production and Insecurity of Food in Nigeria

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Abstract

Agriculture is one of the sectors that play the roles of safeguarding food supply and food security, promoting industrialisation, providing jobs and motivating strong suppleness to external susceptibilities and nurturing shared prosperity. Agricultural sector's contribution to Gross Domestic Product for the past seven years has risen from 23.33 in years 2013 to 25.16% in 2019, respectively. However, with the advent of COVID-19 pandemic, what will be the fate of Nigeria's economy and future food security? In light of all the roles of agriculture in the nation's economy building, the past and present constraints are capable of endangering the developmental framework of food availability and meeting up with the desired food security, if not tackle holistically. As part of the objectives of ensuring food availability, food security, and boosting the agricultural export competitiveness, several policies have been introduced by Federal government of Nigeria. The question then is, "how effective and sincerely can these policies and measures put in place serve as panacea for Nigeria?" Hence, this paper attempted to review the past, present and future implications of COVID-19 pandemic on the food availability, food security and possible panacea for Agricultural sector in Nigeria.

Keywords:

Influence, Covid-19
Pandemic,
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production,
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Background to the Study

The growth of export of agricultural products rises up as a result of upsurge in transportation chances. On the other hand, the decrease in available land area and exhaustion of arable lands is a serious constraint, The continuous decline of soil fertility in many areas due to deficiency or inadequacy of mineral and organic fertilizers. Besides, there are increase and decrease in the numbers of the rural population as result of searching for white collar jobs, this has been resulting to overpopulation in the urban centres every year (Olugbemi and Falade, 2014). The combination of lack of technological, and inefficient distribution of mechanisms and development in population growth, led to a rapid drop in the availability of natural resources to farmers. It can be said that agriculture in Nigeria today does not bring all possible profits. But with judicious management of the available resources, there can be better results.

Despite all teething troubles facing agricultural development program in Nigeria, the share of agriculture sector in gross domestic product cannot be unrecognized. Agriculture continues to play a substantial role in the development of the economy and society, Agriculture is responsible for food production, raw materials, contributes to food security, poverty lessening; it contributes to the development of trade and the economy as a whole. According to the International Labour Organization (ILO), the agricultural sector is the largest employer of labour in Nigeria.

Besides, over 80% Nigerians depend on produce from local farms as the major channels of food supply to more than 200 million people among which about 43.5% are the youths (Yemi, 2020). Considering these data with the growing population, it calls for relevant strategies by the government and policy makers to target and strengthen the agricultural value chain with a view of ensuring food availability and security. Basically in Nigeria, agriculture is broadly divided into four sectors; crop production, fishing, livestock and forestry. In all the stable production and availability of the product or products from all these agricultural sectors determine the food security for the nation.

In the other hand, when food is available and accessible to household it is termed food security. This means that a household is considered food secure if the occupants do not live in hunger nor fear of starvation. According to the World Food Summit (1996), This mean when all people in a given environment or areas have access to safe and nutritious food materials adequately, to maintain a vigorous and dynamic life. In general, the perception of food security is explained to embrace both bodily and monetary approach to food that meets people's nutritive needs as well as their food likings.

In a broader form, a family food security occurs when all family members, continuously, have access to adequate food for a dynamic and healthy life. This security of food incorporates a measure of flexibility to future disturbance or lack of constant food supply as a result of some prevailing factors such as; poor road network, droughts, transportation problems or shipping interferences, fuel scarcities, economic uncertainty, terrorism, crisis and conflicts.

However, the COVID-19 sudden outbreak disturbed the whole food production structure because it wields uneven shock on global and nationwide food schemes. The impacts of the pandemic affect all facets of food channels from supply to demand and more of these effects are looming against future food production and availability for the ever increasing population. This is because, it affected all fundamentals stages of food production and distribution channels, ranging from primary supply sections to dispensation levels coupled with the trading at national and international logistics schemes, to middle and ultimate demand stage. Hence, the channel of transmission into food products and agricultural need was not being left out (FAO, 2020).

Existing Food security challenges before COVID-19 pandemic

The new shocks that are related to climate change, include; problem of conflict, pests and infectious diseases outbreak as recently experiencing all over the world; typical examples such disease and pests' pandemics include; COVID-19 and African Swine Fever, respectively which were maiming food production, interrupting supply chains and underscoring people's capability to have access to nutritious and affordable food, and this become a serious concern for food security challenge in future. According to Bello (2010), and World Bank report on food security, there are existing issues with food security which are closely related to problems facing agricultural sectors.

These can be highlighted as follows:

- a) Fragile and states with incessant conflict, where structural organization of distributing food materials are challenging even without morbidity and social distancing
- b) Countries touched by series of crises resulting from more recurrent severe weather Phenomenon such as; floods, droughts, and pests impacts food production in some countries
- c) The poor and susceptible, including thousands of people who were already chronically food insecure before the COVID-19 crisis impacted movement and incomes
- d) Countries with significant currency depreciation, (driving up the cost of food imports) and
- e) Countries seeing other commodity prices collapse (reducing their capacity to import food)

The World Bank Group works with partners to address the above factors to have food systems that can improve food security, by promoting nutrition-sensitive agriculture. According to World Bank food report, 2010, this was done through the ten agenda programme as follows:

1. Consolidation safety nets to ensure that susceptible families to have access to food and water - and money in their pockets to make dynamic purchases
2. Distributing accelerated emergency support by boosting financing through existing projects to respond to crisis situations

3. Involving in policy dialogue and coordinated activities with countries and development partners to address food security challenges
4. Promoting farming systems that support modified micro climate to produce various mix of foods, to improve food systems' suppleness, increase farm incomes and enable greater availability and affordability of nutrient-dense foods
5. Improving supply chains to reduce post-harvest food losses, improve hygiene in food distribution channels, and better link production and consumption centers
6. Applying an integrated approach to managing risks associated with animal, human and environmental health
7. Assisting investments in research and development which enable increasing the micronutrient content of foods and raw materials
8. Encouraging for policy and regulatory reforms to improve the efficacy and integration of domestic food markets and reduce barriers to food trade
9. Functioning with the individual sectors, government, scientists and others to strengthen capacities to assess and manage insecurity of food
10. Supporting the consultative group which enhances agriculture science and innovation to boost food and nutrition security globally

Past and present challenges: Nigeria dilemma for food security

In general, agricultural production is known to be an input-oriented business and the concentration of each factor of production can differ significantly across agricultural systems which is capable of exposing the farmers to modifications cost of the input (Yemi, 2020). These modifications can be brought about by several factors which include; poor road network, interferences in transportation arrangements, ports and roads closure, deferments in customs clearance, also a lack of or inadequate credit facilities, high interest rates on capital and increased exchange rates, which hike inputs cost. The configuration of these factors for production in primary agriculture varies along the phases of development and the kind of output (FAO, 2020).

Nigeria population growth rate is more than the food production. To bridge the demand and supply gap between the population growths, several measures were put in place including importation of agricultural products notably; rice, wheat, palm oil among others. According to NBS (2020), Nigeria import stood at ₦3.3 trillion between years 2016 and 2019. However, the outbreak of COVID-19 that used existing foundational food production problems as bricks for building future tower of food shortage if care is not taken (Yemi, 2020).

Before the lockdown caused by COVID-19, the closure of Nigerian's borders by Federal Government of Nigeria in 2019, had caused food prices to rise. According to National Bureau of Statistics report of June, 2020, Nigerians spent up to ₦22.8 trillion on food items in 2019 (NBS, 2020). With the advent of COVID-19 pandemic and its associated impacts such as the interstate movement restriction which was experienced some couples of weeks ago; this caused the disruptions to the raining season farming and the logistics challenges associated to obstruct domestic food crops production and distribution. These in no doubt worsen the poverty level across the country.

Before and during COVID-19, the following challenges are currently facing Agricultural production in Nigeria as identified Ajetunmobi (2010; Watson, 2010):

- a. Resources shortage which include; unevenly and untimely rainfall distribution, lack of improved and affordable seeds and propagues, mechanisation, irrigation among other inputs.
- b. Violent conflicts and security challenges this include farmer-herder crises and Northern terrorism.
- c. Outdated and Neolithic farming systems of agriculture.
- d. Inadequate supply to meet population growth and final demand.
- e. Poor and inadequate access to fund for production; where available, there is misappropriation.

General effects of COVID-19 on Nigeria Agriculture

According to FAO (2020), COVID-19 effects in many countries on Agricultural and food production was summarily highlighted as follows:

1. Disruption in food distribution and supply chain,
2. Depletion of the strategic reserves of food
3. Decline in export earnings from Agricultural production
4. Decline in implementation of governments Agricultural funding intervention
5. Disruption to Agricultural promotion policy that targets self sufficiency food production
6. Decline farmers' income from farm produce amidst limited input.

Future impact of COVID-19 on food security

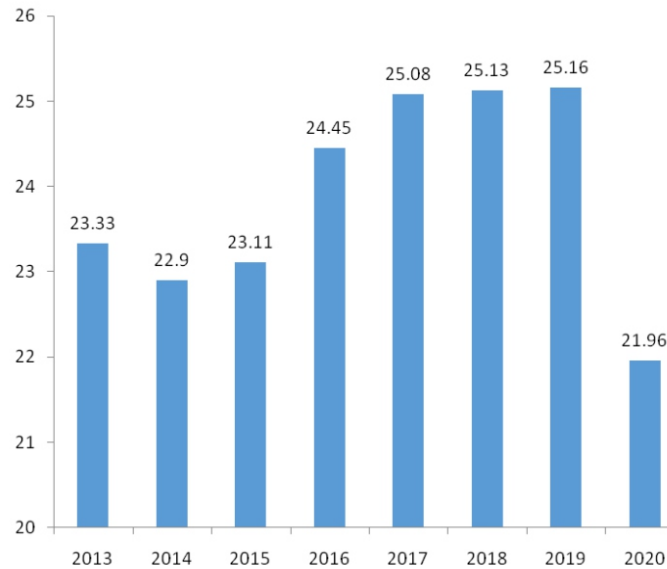
The expected negative effects of COVID-19 pandemic are especially pronounced in food supply in our various markets, exportation and importation of farm produce (Yemi, 2020). The combine effects of this disease outbreak aggravate the problems facing Agricultural production in Nigeria and as well in other countries. In turn, food production and access to food in many parts of the world is compromised, exacerbating food security problems which will results to malnutrition (Bello, 2010). Failure to address these factors among others at both micro and macro levels will aggravate and serve as building bricks for tower of food shortage.

According to Watson (2010), Agriculture sector has the greatest contributions to many countries economy, hence, Agricultural production must become more resilient, more environmentally benign, more ethical and more socially sustainable. The impact of COVID-19 pandemic on food security and agriculture in Nigeria can be viewed holistically under the strategic importance of the agricultural sector in Nigeria's economy, which include;

1. Agriculture's contribution to the Nigeria GDP (%)

From Figure 1, the slight increase in GDP in year 2019 compared to the values in years, 2017 and 2018 showed that there are great potentials for agriculture sector if the prevailing factors are control or reduced to the bearable level. However, year 2020, report indicates that the GDP dropped drastically due to COVID-19 outbreak coupled with the initial problems.

Figure 1: Agriculture's contribution to GDP (%) from years 2013 – 2020



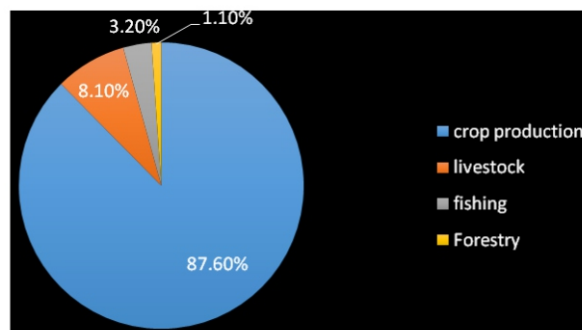
Sources: NBS, PwC *analysis data* at as first Quarters of 2020

2. Nigeria's comparative advantage in selected Agricultural Crops

In Nigeria, imports produce are; wheat, Sugar, fish and Milk while export agricultural produce are; Sesame seeds, Cashew nuts and fermented cocoa beans, ginger, frozen shrimps and cotton.

From Figure 2, the total output from crop production carries the lion share while the least is output is from Forestry. By implication, crop production is the major units of agriculture sector in Nigeria. What then happened, when those mentioned factors are not controlled (Figure. 2).

Figure 2: Total output from various Agricultural sectors in Nigeria

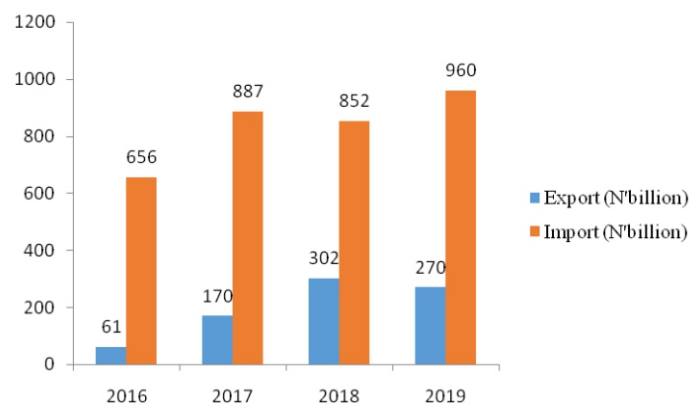


Sources: NBS, PwC *analysis data* at as first Quarters of 2020

3. Nigeria Agricultural Trade potential

Export declined by 11% from ₦302.2 billion in year 2018 to ₦269.8 billion in year 2019. While imports rose by 12.7% from ₦851.6 billion to ₦959.5 billion during the same period up till year 2019, Nigeria remained a net food importer this agricultural trade deficit widened the imports exceeding exports by ₦689.7 billion in the year 2019 compared to ₦14549.3 billion recorded in year 2018. In summary, between years 2016 and 2019, Nigeria's cumulative agricultural import was ₦13.25 trillion as shown in Figure 3.

Figure 3: Nigeria's Agricultural trade potential between 2016 and 2019



Sources: NBS, PwC *analysis data* at as first Quarters of 2020

3. Agriculture as the bedrock of Nigeria's economy before and after oil price slump

In the year 2016, following the oil price crash that drawn Nigeria into recession, agricultural sector was and still the only sector that showed resilience with a growth of about 4.11% while the oil sector shrank by 13.65% in the year under review.

From forgoing discussion, it must be emphatically stated that the nation's agricultural production provides the largest source of income as well as the life wire of the nation economy besides oil sector. From the above data, it showed clearly that any further delay in resolving the identify clogs in the wheel of developing agricultural sector in Nigeria spells danger and place the nation economy in unstable food supply to the ever increasing population. Hence, COVID-19 pandemic can be seen as a serious threat to the nation's economy which must be holistically addressed with workable plans to boost agricultural production. This is necessary considering, the food availability and food security for present and the future.

Suggested strategies for food supply during and after COVID-19

The pandemic; COVID-19 is a global concern, but there is quandary because of the ever increasing population in many countries. This population depends primarily on the resources obtained from agricultural production from the immediate environment (ecosystem) by exploiting this for survival. However, there is increase in the population

and the available resources remain stagnant, this implies that the whole cycle of agriculture revolves round the problems of ecological degradation especially the available arable land area for both crop and livestock production (Olugbemi and Falade, 2014).

Moreover, in order to achieve sustainable food production and pedal out food insecurity in the country, there is need to consider the farmers' perception and attitude due to the poor agricultural practices that constitute a major threat to food sustainability before CONVID-19 pandemic. As matter of fact, there is need for serious control and prevention of land degradation, using of appropriate agricultural practices at the right place will reduce the negative effects on environment and boost food production (Yemi, 2020). Hence, the following can be suggested as recommendations to cushion or reduce the future effects of COVID-19 on food availability and security:

1. Revolutionising agricultural mechanisation
2. More palliatives can flow to the farmers in fund, food and farm input
3. Provision of all round security against terrorism and all forms of crises between crops and livestock farmers
4. Increase in budgetary allocation to agricultural sectors for practicing farmers and not political farmers
5. Compulsory backward integration for agro-allied industries
6. Increasing the capacity of existing strategic food reserves
7. Promoting Agricultural policy
8. There should be economy recovery and growth plan
9. Provision of borrowers programmes and developing financial institutions for financing agricultural production
10. States and local governments to take responsibilities of their agricultural core competence
11. Reintroduction of farming clusters to be financed through public-private partnerships.
12. Increase investment in research and development that can improve yields.

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