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Effects of Covid-19 Lockdown on Rural Farmers and Farming Activities in Aguata Agricultural Zone of Anambra State, Nigeria

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Abstract

This work examined the effects of Covid-19 lockdown on rural farmers and farming activities in Aguata agricultural zone in Anambra State, Nigeria. Specifically, the work ascertained awareness of the Covid-19 virus, examined the effects of the Covid-19 pandemic on the rural farmers and their farming activities and strategies to be employed in curbing these effects. A total of 110 farmers were selected using a multi-stage sampling technique and data collection was done by use of a well-structured questionnaire, and then analyzed using frequency, percentage and mean and standard deviation. The results showed that majority (64.5%), of the respondents were women; with majority (47.3%) of the farmers being between the ages of 41-50 years. It was further revealed that the farmers were aware of the Covid-19 pandemic and the most effective source of information was Radio. The results also showed that low household income (X=3.91), food scarcity (X=3.92) and poor transportation system for farm produce (X=3.84) were the most felt effects of the pandemic on the farmers and the farming activities, while provision of loans and credit (X=4.0) and empowerment on alternative sources of income generation (X=4.0) are the most effective strategies as perceived by the farmers for curbing the effects of the pandemic on farmers. It was recommended that credit facilities be set up for the farmers, extension and advisory services be made available and easier access to farm inputs should be provided to enable them resume production activities.

Keywords: Covid 19, Farmers, Lockdown, Information, Farming

Introduction

The basic foundation of agricultural practices in Nigeria is rural farming this is because a greater percentage of Nigeria's population live in rural areas and are responsible for about 75 percent of the country's food production. Nigeria is blessed with huge physical, human and natural resource endowments yet the majority of its population live below both the absolute and relative poverty lines. This poverty situation is worse in the rural areas where over 70 percent of the people reside and earn their living through agriculture than in the urban areas. More than 86.5 percent of the rural population is engaged in agriculture. This invariably leaves agriculture as a key sector capable of affecting majority of Nigerians in diverse ways [1].

Agriculture plays a cardinal role in Nigeria's economy contributing the greatest share to the nation's gross domestic production (GDP). Agriculture generates employment for over 70 percent of the total labor force, accounts for about 60 percent of the non-oil exports and, perhaps most important, provides over 80 percent of the food needs of the country [2-4]. Despite these indicators, Nigeria's agricultural performance in recent times remains inadequate and indeed far less than its potentials. Food demand exceeds the supply thus leading to large importations of food, which further erodes the economies foreign exchange [5].

There are many problems currently facing the agricultural sector as a whole but the most recent and with the most felt impact on both agriculture and the world entirely is the COVID-19 pandemic. The COVID-19 (Corona Virus Disease 2019) after spreading through East Asia, Europe and North America in early 2020 spread across countries in Africa and Latin America. In late February 2020, Nigeria recorded its first confirmed case of COVID-19 in Lagos before it began to rapidly spread through to other states in Eastern and Northern parts of the country. The arrival

of this pandemic set off a chain of policy actions, including public health and education campaigns, fiscal and monetary measures, restrictions on large sections of the economy and compensation measures in the form of social protection for poor and vulnerable people [6].

Countrywide lockdown measures, including reduced access to markets, have resulted in job losses and have negatively affected the poor's income-earning opportunities reducing their purchasing power, pushing them to resort to negative coping strategies and widening the poverty gap. Related to the agricultural sector, these include casual laborers supporting on-farm planting or harvesting activities (including migrant laborers), transport operators, petty traders, market vendors, and village-based loan and credit operators. The closure of local and farmers' markets is limiting access to nutritious foods such as fresh fruits and vegetables for the urban poor. Job losses, combined with a drop in remittances, will limit households' ability to afford healthy diets and basic needs [7].

As of March 2020, the federal government of Nigeria instituted a mandatory lockdown as a result of the rising number of cases and deaths caused by the COVID-19 Pandemic. This lockdown came with various restrictions like the ban on inter-state travels, intra-state movements, curfews, compulsory use of facemasks and hand sanitizers, social distancing etc. and these restrictions were felt deeply in the rural areas and by rural farmers because their production ability was hindered and also there were no means of selling their farm produce so many suffered huge losses from wastage alone. Majority of rural dwellers depend on rural farming for their food security and their incomes, the lockdown will inadvertently put many rural farmers particularly female-headed households into poverty. The arrival of the Covid-19 disease puts stress on the already overburdened economy of Nigeria and this will in turn escalate poverty levels especially among the rural small-scale farmers. The government will have to employ means and put strategies in place to be able to ensure that they alleviate the plight of the rural farmers [8].

During the course of the lockdown, there were restrictions to movements and social distancing and this prevented many farmer and laborers from carrying out their various farming activities as efficiently as they should have. It also caused a disruption in the crops production cycle as well as the supply and distribution of agricultural inputs (fertilizers, herbicides etc) to rural communities. This also caused the food supply chains to be interrupted due to human and vehicular movement both within and outside the state and this resulted in dearth and wastage of essential food items for household consumption. These claims have not been empirically confirmed in the study zones. Literature has it so in many places but there is no empirical data to this in the study area, this study seeks to unravel this in the study area.

Objective of the Study

The general objective of this study is to investigate the effects of the COVID-19 lockdown on rural farmers and farming activities in Aguata Agricultural Zone in Anambra State, Nigeria.The specific objectives were to :

1. Ascertain farmers awareness of COVID-19 pandemic.
2. Examine the effects of the COVID-19 lockdown on the rural farmers and farming activities.
3. To identify strategies for curbing the effects of the COVID-19 lockdown on the farmers and farming activities in Aguata Agricultural Zone.

Methodology

Anambra State is in South-east Nigeria. Anambra has boundaries with Delta State to the West, Imo State and Rivers State to the South, Enugu State to the East and Kogi State to the North. Anambra State covers an area of 4,816.2 square kilometers. It has tropical rain forest vegetation, humid climate with a temperature of about 87°F and a rainfall of between 152cm-203cm. Situated on rolling flat land on eastern plains of the Rivers Niger, and lies at latitude 6°20¹ north and longitude 7°00¹ east. It has a population of 4,177,828 in 2023 projected from 2006 National Census Figure (NPC, 2006). The state accounts for 3.0% of Nigeria's total population. Anambra State's vegetation is predominantly grassland, with scattered forests and woodland areas as well as tropical rainforest. Agriculture is important in the state: oil palm, corn, rice, yam and cassava are its main cash crops. Fishing in inland waterways is a significant commercial activity. The principal minerals found in the state are zinc, bauxite and lead. Anambra State has twenty-one Local Government Areas and is divided into Four Agricultural Zones namely, Onitsha, Aguata, Awka and Anambra. Aguata Agricultural Zone covers an area of approximately 195sq kilometers with a projected population of 370,172 people (NPC, 2006), it consists of five LGAs namely: Nnewi north, Nnewi south, Aguata, Orumba north and Orumba south. The agricultural zones and LGAs under them are represented in the ***table 1*** below:

Table 1: Agricultural Zones and Local Governments under them

Agricultural Zone	LGAs
Onitsha	Onitsha north, Onitsha south, Ogbaru, Idemili south, Idemili north, Ihiala, Ekwusigo
Anambra	Anambra east, Anambra west, Oyi, Anyamelum
Aguata	Nnewi north, Nnewi south, Orumba north, Orumba south, Aguata
Awka	Awka north, Awka south, Dunukofia, Njikoka, Anaocha

Sampling Technique

The study was carried out in Aguata Agricultural zone of Anambra state. A multi-stage sampling technique was used in this study. The first stage involved the purposive selection of 3 agricultural oriented LGAs namely: Nnewi south, Aguata and Orumba north. In the second stage, 2 communities were purposively selected from the LGAs namely: Amichi and Ebenator, Igboukwu and Ora-eri, Amaetiti and Ufuma. In the third stage, 20 respondents were randomly selected from each community except ufuma which had 10 respondents. This gives a total of 110 farmers. Questionnaire was used in data collection. The data collected were analyzed using frequency, mean and standard deviation. Objectives 1 and 2 were analyzed using frequency counts and percentage. Objectives 3 and 4

$$X = \frac{SA+A+D+SD}{4} = \frac{4+3+2+1}{4} = 2.50$$

were achieved using a 4 point Likert -type scale of Strongly Agree (SA=4), Agree (A= 3) Disagree (D= 2) And Strongly Disagree (SD=1). This was computed thus:
The cut-off mark was a mean of 2.50 therefore any response below 2.50 is adjudged not to be an effect and strategies for improvement

Results and Discussion

Awareness of Covid-19 pandemic

This ***table 2*** shows that all the respondents (farmers) are aware of the COVID -19 pandemic and that information on Covid 19 was quite circulated. Awareness may be in the form of visceral feelings, sensory perception, sensing something either from observation or getting acquainted with an issue or event.

Table 2: Awareness of Covid-19 pandemic

Awareness	Frequency	Percentage
Yes	110	100
No	0	0

Awareness denotes a fundamental experience such a feeling that accompanies the experience, being conscious of a phenomena [9-11].

Sources of Awareness of COVID – 19 Pandemic Lockdown

Table 3 shows that 100% of the information on Covid 19 was gotten from radio, 78.2% from television, 63.6% from Newspaper, 56.4% from their fellow farmers and 12.7% from cooperative society. This implies that radio is the most successful means of passing information to the farmers on Covid 19.

Table 3: Sources of Awareness of COVID – 19 Pandemic Lockdown

Awareness Sources	*Frequency	Percentage
Radio	110	100
Television	86	78.2
Newspaper	70	63.6
Fellow farmers	62	56.4
Cooperative society	14	12.7

*Multiple responses

Effects of Covid-19 on Rural Farmers and Farming Activities

The Covid 19 pandemic had a serious toll on the farmers. These included shortage of farm labour with a mean response of (M=3.74) this shows that due to this pandemic, farm labour was not available as movement restriction and fear of contacting the virus makes them to stay indoors and this leads to the shortage of farm labour. Low household income (M=3.91) this is as a result of not being able to work during the mandatory lockdown. Shortage in supply of farm produce (M=3.77) due to farming and harvesting operations not going on there is a short supply of farm produce. Reduced demand for perishable crops (M=3.82) crops with a longer shelf life will be in demand more than perishable crops. Food scarcity (M=3.92) because of the lockdown restrictions, people had to hoard and stockpile as much food as they can and this causes food to be scarce. Shortage of farm inputs (M=3.82) markets were on lockdown and the retailers are not seen to supply farm inputs to the farmers and this causes lack of supply of farm inputs. Shortage of raw materials for planting (M=3.55) this is a shortage in raw material as the country are in lockdown and no importation of raw materials. Unavailability of market (M=3.75) farmers experienced difficulty in selling off their harvested produce due to the movement restrictions. Losses due to crop spoilage in the fields (M=3.67) many crops were lost to spoilage because the farmers weren't able to harvest them. delayed farming (M=3.75) this is as a result of the mandatory lockdown. delayed time of planting (M=3.75). Halt in post-harvest activities (M=3.61). Poor transportation system for farm produce (M=3.84) this is as a result of the movement restrictions both inter and intra state. Absence of market (M=3.75) this shows that the lockdown prevented people from buying the farmers' produce.

Table 4: Effects of Covid-19 on rural farmers and farming activities

Effects	Mean(x)	SD
Farmers		
Shortage of farm labour	3.74	0.12
Low household income	3.91	0.14
Shortage in supply of farm produce	3.77	0.12
Reduced demand for perishable crops	3.82	0.13
Food scarcity	3.92	0.14
Shortage of farm inputs	3.82	0.13
Shortage of raw materials for planting	3.55	0.1
Unavailability of market	3.75	0.12
Farming activities		
Delayed farming	3.75	0.12
Delayed time of planting	3.75	0.12
Halt in post-harvest activities	3.61	0.11
Poor transportation system for farm produce	3.84	0.13
Absence of market	3.75	0.12

Accepted mean= 2.5 and above

Strategies for Curbing the Effects of Covid-19 on Farmers

Table 5 shows the mean score of the ways of curbing the effects of Covid-19 on farmers. These includes: Provision of grants to farmers (M=3. 91), provision of loans and credit (M=40), access to farm inputs (M=3.90), provision of interest-free loans(M=3.58), subsidy on agricultural inputs and equipments (M=3.53), granting of moratorium on loans (M=3.55), vaccination (M=3.44), improved local food supply chain (M=3.84), provision of extension and advisory services (3.86), timely conflict resolution among farmers (M=3.74) and empowerment on alternative source of income generation

Table 5: Strategies for Curbing the Effects of Covid-19 on Farmers

Strategies	Mean(x)	SD
Provision of grants to farmers	3.91	0.14
Provision of loans and credit	4.0	0.14
Access to farm inputs	3.90	0.13
Provision of interest-free loans	3.58	0.10
Subsidy on agricultural inputs and equipments	3.53	0.09
Granting of moratorium on loans	3.55	0.10
Vaccination	3.44	0.09
Improved local food supply chain	3.84	0.13
Provision of Extension and Advisory services	3.86	0.13
Timely conflict resolution among farmers	3.74	0.12
Empowerment on alternative sources of income generation	4.0	0.14

Accepted mean= 2.5 and above

(M=4.0). This shows that the above listed strategies are necessary and important in curbing the effects of the Covid-19 pandemic on rural farmers [12].

Conclusion

The major sources of information and awareness about the Covid-19 virus are from the radio and television. Low household income and food scarcity are the most felt effects of the Covid-19 on the rural farmers while poor transportation system for farm produce is perceived as the major effect on farming activities, then the most effective way of curbing the effects of the Covid-19 pandemic as perceived by the rural farmers is through provision of loans and credit and empowerment on alternative sources of income generation.

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