

## **EFFECTS OF COVID-19 PANDEMIC ON FARMING HOUSEHOLDS IN OGBOMOSO, OYO STATE, NIGERIA**

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### **ABSTRACT**

*The study examined the perceived effects of COVID-19 pandemic on farming households` agricultural enterprise in Ogbomoso, Oyo State, Nigeria. The study adopted descriptive survey. The population of the study are households engaged in agricultural enterprises as means of livelihood. A multi-stage sampling technique was used to select the sample. The sample for the study was 120 respondents made up of farming households. Primary data was used for the study. The data was collected with the aid of questionnaire. Descriptive statistics and Likert-type rating scale were used to achieve the research objectives. Some findings of the study include; analysis of the socio-economic characteristics revealed that the average age of the respondents was 53 years. Majority of the respondents (90.83%) were males. The mean household size was 8 persons. The average monthly income earn by the respondents was ₦41,400. Also, majority (68.30%) of the respondents were crop farmers, 15.00% were crop and livestock farmers, 10.00% were livestock farmers and only 6.70% were farm input suppliers. The result showed that majority (98.33%) of the respondents were aware of COVID-19, the sources of their information include Television, Radio, social media, Religious bodies, friends and family were the respondents` major sources of information about COVID-19. The result of the study revealed COVID-19 was believed to be a medical conditions caused by Corona Virus but not 5G technology or spiritual force. The respondents perceived effect of COVID-19 include loss of working capital, loss of savings, among several others. The study concluded that COVID-19 pandemic to a great extent affected agricultural enterprise of farming households in the study area. Based on the study findings, the study recommended that policy reactions of government at all levels should including relief to farming households whose livelihood were affected by the pandemic.*

**Keywords: COVID-19, Pandemic, Farming Households, Enterprise, Nigeria**

## INTRODUCTION

Coronavirus Disease 2019 (COVID-19) pandemic represents an unprecedented global crisis as Analysts make comparisons with the Great Depression of the 1930s (Addison, Sen and Tarp, 2020). The virus originated in the Wuhan province of China and has since spread to all parts of the world (WHO, 2020). The pandemic arrived suddenly, with little warning, and much of the final economic impact will depend on SARS-CoV-2 itself—about which much is unknown—and the success or failure of efforts to contain and suppress it, and to develop and deploy a vaccine. This makes the economic outcomes highly uncertain, both in depth and duration (Addison, Sen and Tarp, 2020). The disease has been described by health authorities as infectious and contagious. Economic experts have predicted that the pandemic could plunge the world into a global recession (Ozili, 2020). The spread of COVID-19 to all the continents of the World is a threat to household welfare especially in developing countries. COVID-19 (a new corona virus strain) is a deadly lower tract respiratory infection that could be transmitted from animals to human beings and likewise from human beings to human beings (Wu Z *et al.*, 2020). Arolas *et al.* (2021) reported that in total, 20,507,518 years of life have been lost to COVID-19 among the 81 countries studied, due to 1,279,866 deaths from the diseases.

It is exacerbating into the worst global public health emergencies. Pan *et al.*, (2020) reported that to control the rapid spread of COVID-19, cities and countries are gradually locked down, and citizens have been quarantined globally. This is because as at the moment, there is no known treatment for COVID-19. The battle against the COVID-19 pandemic has however presents countries with different mechanisms to combat the outbreak of the pandemic. The COVID-19 outbreak in just a few months has emerged into one of the greatest global health challenges. While in past years, the FAO recognized military conflicts and climate extremes as main threats to food security, the 2020 report emphasized that pandemic-related economic slowdowns and downturns undermined efforts to end hunger worldwide (FAO, 2020). Consequently, COVID-19 pandemic has left an indelible mark on Africa's Agribusiness sector. Millions of households whose livelihoods depend on farming are facing a huge food crisis (Fernando, 2020). According to Welsh (2020), COVID-19 pandemic has affected food systems directly by distorting supply and demand internationally, and indirectly by degrading the purchasing power of the population and by undermining the capacity to produce and distribute food. A prolonged pandemic can cause price increase due to disruptions in distribution chains and trade flows. These are the people that would suffer most in this pandemic, especially when the world continues to be forced to apply force social distancing through quarantines, lockdown and curfew (World Bank, 2018).

As one of the most critical sectors in the economy, agriculture provides people with essential agricultural products to safeguard their livelihoods, which are the foundation of a stable society (Pan et al., 2020). Agriculture is the main source of livelihood in Nigeria, especially in the rural areas and is plagued with various problems (Abimbola and Oluwakemi, 2013). Therefore, describing the effects of COVID-19 on Nigeria's agricultural economy and exploring the effects on rural farming households who are directly involved in agriculture as their mainstay. This is very necessary giving the role they play in the economy knowing fully well that the severity of the effects will depend on how long the pandemic lasts.

COVID-19 is still a global problem calling for a serious attention. As stated earlier, both lives and livelihoods are at risk as COVID-19 crisis affects households in diverse ways. Some of these effects includes loss of income, revenues and enterprises among households; resulting in debt defaults in some instance. This is because the lockdown and restrictions on movement imposed by the government to curtail the spread of the virus at the end of March, 2020 came as a shock to small-scale farmers in Nigeria. The fact that movement restrictions were not fairly effected by security agencies saddled with the responsibility to enforce it across the country affected many farming activities as many farmers could not get to their farms as a result of frequent harassment and extortion by law enforcement agents on the roads discouraging many food transporters from operating. In some other instance, it resulted in hike in the cost of transportation. Many rural farmers who are the major food producers rely on their own production as their main source of food, as well as the income they make from selling their farm produce to meet their household needs. Consequently, farmers' access to markets were also severely disrupted. Many farmers lost revenue as many small-scale farmers do not have facilities that can enable them to store their produce, hence, several rural farm households suffered loss of their fruits and vegetables among several other produce, or sell them off cheaply to middlemen who took advantage of the situation. This situation had led to poor food access, fall in purchasing power, remittances drop, food prices rise. Though, it may be too early to predict the severity and duration of the crisis, it is very clear that its socio-economic costs cannot be overemphasized (ILO 2020).

Consequently, as at the time of carrying out this study, studies that examined the effects of COVID-19 pandemic on rural households' farming households are still scanty. This constitute a gap in literature that this study seeks to fill. This study attempt to be one of the few early studies on the effects of COVID-19 on farming households in rural areas. A study of this nature is very necessary not only to help assist policymakers in formulating effective policies but also to provide insights into the effects of similar infectious diseases in the future on farming households in rural areas.

It is in view of this that this paper examined the effects of COVID-19 pandemic on farming households' agricultural enterprises in Ogbomosho, Oyo State, Nigeria. The specific objectives of the study include to;

- i. describe the socio-economic characteristics of the respondents in the study area;
- ii. assess the respondents knowledge of COVID-19 in the study area;
- iii. identify the respondents' sources of information on COVID-19 in the study area;
- iv. describe the respondents' perceptions of COVID-19 in the study area; and,
- v. examine the effects of COVID-19 on the farming households' agricultural enterprises in the study area.

## **METHODOLOGY**

### **Study area**

The study was carried out in Ogbomosho Agricultural Zone of Oyo State, Nigeria. It is located approximately on the intersection latitude 8° 10' North and longitude 4° 15' East. It is regarded as a Derived Savannah vegetation zone and a low land Rain Forest area, the zone experience both wet and dry seasons annually and agriculture is the main occupation of the people in the area. It has an area landmass covering about 37,984 square kilometers and located in the northern part of Oyo State. The zone comprised of five local government Areas namely; Ogbomosho North, Ogbomosho South, Ori-ire, Surulere and Ogo Oluwa. Ogbomosho has many surrounding villages and emerging towns with the Soun of Ogbomosho as the head of all the traditional rulers in the area. Agriculture is the main stay of the economy. There are many farm produce from the state notably mango, cashew, cassava, maize, yam among others. Ogbomosho is one time well known for cassava production. The people of the land also engages in trading, in rearing of domestic animals like goats and sheep.

### **Sampling and Data Collection**

Primary data was used for the study along with information from secondary sources. The primary data was collected with the use of well-designed questionnaire. The questionnaire was divided into sections based on the study objectives and administered to the respondents. The key information gathered included the socio-economic characteristics, the respondents' awareness of COVID-19, perception of farming households on COVID-19 and the economic effects of COVID-19 on farming in the study area. The population of the study were households involved in farming in the study area.

A Multi-stage sampling technique was used to select the representative sample in the study. In stage one, three Local Government Areas were purposively selected from the LGAs because of the predominance of rural areas in the LGAs. These include Ogbomoso south, Surulere and Orire. The second stage involved the random selection of four villages from each of the chosen local government areas, making a total of twelve villages. Stage three, involve the selection of ten households from the list obtained from Ogbomoso Agricultural Development Zone (ADP) Zone office which contains listed farming households of each of the selected villages; this was done through random sampling technique to arrive at a total of 120 farming household heads used for the study.

### **Analytical Techniques**

The analytical tools used in the study were descriptive statistics, 5 point Likert-type rating Scale and a 4 point Likert-type Rating Scale. The descriptive statistics include the use of mean, frequency and percentage. Perception of farming households on COVID-19 was measured on a 5 point Likert-type rating scale (SA=Strongly Agree, A= Agree, I=Indifferent, D=Disagree, SD=Strongly Disagree, with scores of 5, 4, 3, 2 and 1 assigned respectively) while economic effects of COVID-19 on farming enterprises was measured on a 4 point Likert type scale (VHE=Very High Extent, HE=High Extent, LE = Low Extent, VLE = Very Low Extent, with scores of 4,3,2 and 1 assigned respectively). For the 5 Likert-type scale rating, the values were added and divided by 5 to obtain a mean value of 3. Any means score of  $\geq 3$  was regarded as being significant, while mean score rating less than 3 was regarded as not significant. While for the 4 Likert-type scale rating, the values were added and divided by 4 to obtain a mean value of 2.5. Any means score of  $\geq 2.5$  was regarded as being significant, while mean score rating less than 2.5 was regarded as not significant.

## **RESULTS AND DISCUSSION**

### **Socioeconomic Characteristic of the respondents**

The socioeconomic characteristics of the rural farming household heads was presented in Table 1. The variables described include: age, gender, marital status, household size, educational level, occupation, years of farming experience, nature of agricultural enterprise, monthly income, and business status.

**Table 1: Socioeconomic characteristics table**

Socioeconomic variables	Frequency	Percentage	Mean
<b>Age</b>			52.66
30-40	12	10.00	
41-50	40	33.33	
51-60	48	40.00	
61-70	19	15.83	
>70	1	0.83	
<b>Gender</b>			
Male	109	90.83	
Female	11	9.17	
<b>Marital status</b>			
Married	120	100.00	
<b>Household size</b>			7.87
1-5	27	22.50	
6-10	76	63.33	
11-15	17	14.16	
<b>Educational level</b>			
Primary	58	48.33	
Secondary	26	21.67	
Tertiary	20	16.67	
No formal education	16	13.33	
<b>Occupation</b>			
Farming	93	77.50	
Civil service	9	7.50	
Trading	11	9.17	
Artisanship	7	5.83	
<b>Years of farming</b>			28.38
1-15	27	22.50	
16-30	40	33.33	
31-45	50	41.67	
46-60	3	2.50	
<b>Nature of agricultural Enterprises</b>			
Crop farming	82	68.30	
Crop and Livestock	18	15.00	
Livestock	12	10.00	
Input	8	6.70	
<b>Monthly income</b>			₦41400
₦10,000-₦30,000	42	35.00	
₦31,000-₦60,000	71	59.17	
₦61,000-₦90,000	6	5.00	
>₦90,000	1	0.83	
<b>Business status</b>			
Registered	3	2.50	
Not-Registered	117	97.50	

Field survey 2020

Table 1 shows the distribution of the respondents by their socio-economic characteristics. The result revealed an average age of the respondents in the study area is approximately 53 years. The mean age indicates that, the farmers were still young and within active labour force group and can cope with vigorous activities of agriculture. The result shows that there were more male involvement in agricultural activities in the study area than the females. This result agrees with Oseni *et al.*, (2015) that, men were more involved in farming, since they have more access to land, extension services, physical inputs and labour which directly affect their productivity level compare to their women counterparts. Based on the result of the analysis all the respondents in the sample were married. The mean household size of 8 persons implies that the respondents had fairly large household size and this has implications for family labour availability and usage in the study area. The result shows low level of education among the respondents as majority had primary education. The result of the study have serious implication for farming since education has strong association with the adoption of better way of farming. The findings of Osun *et al.*, (2014) posit that educated farmers easily understand innovative information on farm practices and production technologies. Farming is the major occupation of most of the respondents in the study. The average farming experience of the respondents is approximately 28 years which implies most farmers in the study area were experienced farmers. The average monthly income earned by the respondents was ₦41400. Only 2.50% had their farming activity registered while most of the respondents were operating unregistered agricultural enterprises. This might be due to low educational level of farmers in the study area.

### **Respondents` Awareness of COVID 19**

Table 2 showed the result on awareness, knowledge and causes of COVID-19 in the study area. COVID-19 was believed to be majorly a medical conditions caused by Corona Virus (95%), 5% viewed technological advancement as the cause and none viewed it as caused by spiritual forces. Based on the result 99.17% of the respondents believed COVID-19 is transmitted through contact with discharges, and only 0.83 agreed it can be transmitted by advanced technology, none of the respondent agrees it can be transmitted through mosquito bites and only 21.67% believed COVID-19 is transmitted through contact with foreigners.

### **Sources of information on COVID-19 available to the respondents**

Distribution of the respondents according to sources of information on COVID-19 is presented in Table 3.

**Table 2: The Respondents COVID-19 Pandemic Awareness and Knowledge.**

COVID-19 Awareness	Frequency	Percentage
<b>COVID-19 Awareness</b>		
Yes	118	98.33
No	2	1.67
<b>Causes of COVID-19</b>		
Medical condition	114	95.00
Technological advancement	6	5.00
Spiritual forces	-	-
<b>Mode of transmission</b>		
Contact with discharges	119	99.17
Non-contact with discharge	1	0.83
<b>Spread through Technology</b>		
Advance technology	1	0.83
Non technology	119	99.17
<b>Spread through Mosquito bites</b>		
Non-mosquito	120	100.00
<b>Contact with Foreigners</b>		
Contact with foreigners	26	21.67
Contact with Non-foreigners	94	78.33

**Table 3: Sources of information on COVID-19 available to the respondents**

COVID-19 Source of Information	Frequency	Percentage
<b>Television</b>		
Yes	72	60.00
No	48	40.00
<b>Radio</b>		
Yes	115	95.83
No	5	4.17
<b>Social media</b>		
Yes	84	70.00
No	36	30.00
<b>Newspaper</b>		
Yes	5	4.17
No	115	95.83
<b>Family and friends</b>		
Yes	82	68.33
No	38	31.67
<b>Workplace seminar/training</b>		
Yes	0	0.00
No	120	100.00
<b>NCDC</b>		
Yes	14	11.67
No	106	88.33
<b>Religious bodies</b>		
Yes	116	96.67
No	4	3.33

Sources: Field Survey, 2020



Table 3 revealed that majority (98.33%) of the respondents were aware of COVID-19, while only 1.67% claimed they have not heard about it. The result shows half of the respondents (60%) heard about COVID-19 through the Television. This result implies that Television is one of the prominently used channel by farmers in the study area access information. According to Ogola (2015) the television is one of the powerful channels of the mass media, which transmit information very fast within the farming community. 95.83% heard through Radio, 70% heard about COVID-19 through social media, only 5% heard about it through newspaper, 68.33 % got their information from friends and family, none of the respondents had Seminar/Workshop training as their source of information. This may be connected to the restrictions on movement and large gatherings as part of the preventive measures to curtail the spread of the virus. 11.67% heard about it from NCDC personnel and 96.67% heard about it through religious bodies. The result of the study is consistent with Ogola (2015), who reported that every quarter the print media loses one percent of their readership, who are migrating either to radio and television or are receiving content in other ways such as the internet, Whatsapp, and breaking-news alerts issued by the same print media.

#### **Perception of Farming Households on COVI-19**

The distribution of respondents according to their perception on COVID-19 is presented in Table 4. The result revealed that 13 out of the 17 items list in the table on the perception of the farming households in the study area on key issues on COVID-19 had their mean rating ranged from 3.00-4.00. This showed that the means were equal to or above the cut-off point of 3.00 indicating therefore, that the respondents agreed that the items were perceived to be true to a very great extent, high extent or otherwise.

#### **Effects of COVID-19 on Agricultural Enterprise of Rural Households**

The data presented on Table 4 revealed that all the 20 items listed as likely effects of COVID-19 had their mean rating ranged from 2.60-3.30. This showed that the means were above the cut-off point of 2.50 indicating, therefore, that the respondents agreed that COVID-19 had effects on the listed items. The effects of COVID-19 pandemic on farming household agricultural activities are reflected in the following aspects but not limited to; abandoning of farm for a long time due to movement restriction (mean score=2.80), prevent access to input supply (mean score=3.00), inadequate access to farm labour (mean score=3.00), prevent access to market (mean score=2.90), led to poor market price (mean score=3.10), led to loss of farm produce (mean score=3.00), loss of farm income/revenue (mean score=3.10), gave room for extortion by security agents (mean score=3.20), inadequate access to means of transportation (mean score=2.90), affected access to credit (mean score=2.70) among several others.

**Table 4: Perceptions of the farming households on COVID-19**

S/No.	COVID-19 Perception	SD	Mean (X)
1	COVID-19 is an agenda of the government to collect and loot money from developed countries and private donors.	2.50	1.9
2	COVID-19 was as a result of power tussle among some of the developed countries.	3.33	2.1
3	COVID-19 is a consequence of the sins of this generation thus God is angry with humanity.	4.17	2.6
4	COVID-19 kills only people with underlying health conditions disease.	15.00	3.0
5	COVID-19 is not a dangerous disease, after all, those who have survived are more than those who have died.	15.83	3.4
6	New Technological Advancement/5G network spread COVID-19.	1.67	2.2
7	If I boost my immune system, I can reduce the chances of dying in case I get infected by COVID-19	55.00	4.3
8	If I sit under the sun or expose myself to high temperature (e.g. hot steaming), I can prevent COVID-19.	16.67	3.7
9	If I use preventive measures e. g mask, hand sanitizer etc it can provide total protection against COVID-19	53.33	4.4
10	If I clean my nostrils with alcohol regularly, I can prevent COVID-19.	15.00	3.8
11	COVID-19 will not kill me if my God (e.g: Jesus, Allah, Buddha among others) is not predestined it so I don't need to worry	21.67	3.8
12	If anyone has recovered from COVID-19, I must totally avoid them.	5.83	3.3
13	Only people who are showing COVID-19 symptoms can spread it to others.	43.33	4.2
14	Observe social distancing in public places in addition to other preventive measures are effective in preventing COVID-19.	5.83	4.3
15	COVID-19 is common with most influential and wealthy people in the society.	43.33	3.6
16	COVID-19 can be prevented through the use of local herbs of various forms e.g honey, black seed, turmeric, ginger, garlic among others.	22.50	3.8
17	COVID-19 is a sign of end time.	22.50	3.4

**Field Survey 2000**

**Table 5: Effect of COVID-19 on agricultural small and medium size enterprises data**

S/N	COVID-19 EFFECTS	SD	(Mean X)
1	COVID-19 Caused me to abandon my farm for a long time due to movement restriction	0.81	2.8
2	Movement restriction due to COVID-19 prevents me from getting farm inputs/planting materials.	1.02	3.0
3	COVID-19 led to shortage of labour on farm thereby slowed down the work on my farm.	0.88	3.0
4	COVID-19 prevents free and effective movement of farm produce thereby affects easy access to market.	0.67	2.9
5	COVID-19 led to poor market prices	1.12	3.1
6	COVID-19 affects buying and selling thereby loss of farm produce	0.82	3.0
7	COVID-19 led to loss of farm income/farm revenue	0.94	3.1
8	COVID-19 led to large losses on perishables.	0.87	2.9
9	COVID-19 led to extortion by security agents on various roads thereby affects the prices of goods in the markets	0.90	3.2
10	COVID-19 caused lack of access to storage facility or infrastructure.	0.95	2.8
11	COVID-19 led to lack of access to means of effective transportation	1.01	2.9
12	COVID-19 led to loss of business/supply opportunities	0.92	2.9
13	COVID-19 further aggravate my business challenges	0.97	3.0
14	COVID-19 led to risk of loss of livelihood.	0.90	2.9
15	Commodities perish for lack of buyers due to COVID-19 lock down / curfew	0.91	2.8
16	It led to drop in sales (low demand) of farm produce	1.19	2.8
17	It led to inability to meet up with the planting season due to movement restriction	0.97	2.6
18	It affects access to credit facility	0.92	2.7
19	COVID-19 led to risk of loss of my working capital	0.80	3.3
20	COVID-19 led to loss of my savings	0.83	3.0

**Field Survey 2020**

## Conclusion

As COVID-19 continues to spread worldwide, it becomes very necessary to understand its effects on agricultural activities of farming households knowing fully that agriculture remains the main source of their livelihood. Based on the findings of the study, the study concluded that COVID-19 Pandemic which led the National and State government to take measures which include lockdown, restrictions traveling and social distancing to counter the spread of the virus have serious effects on the rural farming households and their livelihoods. Based on the findings of the study, the following recommendations were made: that policy reactions of government at all levels should include relief to farming households whose livelihood were affected by the pandemic. To enable the farming households resume agricultural production and farmers' work, they should be provided with financial support, input supply, agricultural technologies, subsidies and other forms of assistance to help rural farmers to reduce the devastating effects of the pandemic.

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