



# A MULTI-PHASE ASSESSMENT OF THE EFFECTS OF COVID-19 ON FOOD SYSTEMS AND RURAL LIVELIHOODS IN NIGERIA

Adebayo B. Aromolaran, Milu Muyanga, Fadlullah O. Issa and Oladele Oladeji

APRA COVID-19 Country Report  
June 2021

## **Acknowledgments**

We would like to appreciate the contributions of the key informants and survey respondents for their cooperation throughout the three rounds of the survey.

Adebayo B. Aromolaran is a Professor of Agricultural and Development Economics in the Department of Agricultural Economics, Adekunle Ajasin University, Akungba Akoko, Ondo State, Nigeria. Milu Muyanga is an Associate Professor in the Department of Agricultural, Food and Resource Economics (AFRE), Michigan State University (MSU), USA. Fadllulah O. Issa is a Principal Agricultural Extension Specialist in the Department of Agricultural Extension & Economics, National Agricultural Extension & Research Liaison Services (NAERLS), Ahmadu Bello University (ABU). Oladele Oladeji is a Lecturer in the Department of Agricultural Economics and Farm Management, Federal University of Agriculture, Abeokuta, Ogun State, Nigeria.

This country report forms part of a series presenting results from three rounds of mixed-methods, comparative assessments conducted by the APRA Programme on the effects of COVID-19 on local food systems and rural economies covering over 800 households and 65 key informants in eight countries (Ethiopia, Ghana, Kenya, Malawi, Nigeria, Tanzania, Zambia, and Zimbabwe), beginning in June-July 2020, and ending in May-June 2021.

This country report is generously funded with UK aid from the UK government (Foreign, Commonwealth & Development Office – FCDO, formerly DFID). The opinions are the authors and do not necessarily reflect the views or policies of IDS or the UK government.

## Key findings

- Households experienced substantial and sustained increases in the cost of tillage services, land rentals, and hired labour, as well as prices of other purchased farm inputs due to COVID-19 lockdowns and restrictions in movement across international borders.
- There was evidence of a restricted flow of farm labour, reduced access to agro-services and farm inputs, and a decline in land area under cultivation.
- Prices of most food items were higher in the second quarter of 2020 (COVID-19 lock-down period) than the first quarter of 2020 (pre-COVID-19). These higher prices were sustained through the fourth quarter of 2020 and the first quarter of 2021, when restrictions in movement were substantially relaxed.
- The lockdown, and other COVID-19 related restrictions, reduced access of households to off-farm work, as well as participation in farm and non-farm businesses, with a consequent decline in income inflow to households.
- A substantial decline in household food intake levels were observed, in terms of quantity and frequency as well as in dietary diversity.
- The study results showed a substantial negative effect of the nationwide COVID-19 lockdown on child education, as most households reported that boys and girls spent a substantial amount of the 6-12 months of schools' closures in non-school related work and leisure activities.
- Generally, the study revealed that the impact of COVID-19 on livelihood of households was mostly negative in the second quarter of 2020 when heavy restrictions in movement and public gatherings were imposed by the government. However, the intensity of these observed negative impacts on households declined consistently as the pandemic progressed, from the second quarter of 2020 through to the first quarter of 2021.
- Some of the observed areas of improvement were the availability of purchased farm inputs, access to farm-gate markets, food availability, engagement of farm households with buyer/traders from outside the community, food consumption levels and dietary diversity.
- The negative effects of the COVID-19 pandemic on livelihoods recorded in this study were largely due to government restrictions in movement and public gatherings rather than the direct effect of COVID-19 infections.

## 1. Introduction

Since the outbreak of COVID-19 in Africa, there have been serious concerns about the impact of the pandemic on agri-food systems – given that most of the population depends directly or indirectly on agriculture for their livelihoods. These concerns are compounded by the fragile state of the continent's health and food systems.

The Agricultural Policy Research in Africa (APRA) network of researchers are currently engaged in preliminary studies focused on documenting and understanding the differential impacts of the COVID-19 pandemic on agricultural commercialisation, food and nutrition security, employment, poverty, and well-being in rural households. These rapid assessment studies, carried out across eight countries in sub-Saharan Africa (Ethiopia, Ghana, Kenya, Nigeria, Malawi, Tanzania, Zambia, and Zimbabwe), are designed to help gain timely insights into how the COVID-19 crisis is unfolding in different parts of sub-Saharan Africa and how rural people and food and livelihood systems are responding.

This paper presents the results of the rapid assessment study in Nigeria between July 2020 and February 2021. The study involved three rounds of data collection through a telephone survey of 110 households in July 2020 (Round One, R1), September–October 2020 (Round Two, R2), and February 2021 (Round Three, R3). To contextualise some of the quantitative findings derived from the rapid telephone interviews, information was also collected through in-depth qualitative interviews with seven key informants (e.g., village heads, local government officials) who possess vast knowledge of the local context.

The first case of COVID-19 in Nigeria was reported on 27 February 2020. By 30 March 2020, Nigeria had recorded 131 confirmed cases and two deaths. To mitigate the impending health crisis, the Nigerian Government quickly commenced a series of COVID-19 lockdowns across states in Nigeria on 30 March 2020. These lockdowns lasted for three months before a gradual relaxation began on 1 July 2021. The COVID-19 cases rose to 25,694 infections and 590 deaths within the three months of the lockdown (April–June 2020).

By the end of September 2020, three months after the moderate relaxation of restrictions, the number of COVID-19 infections had increased by about 23,000 and number of deaths by about 500 to 58,848 and 1,112 respectively. Further relaxation of restrictions in movement and public gatherings came into effect

in October 2020, and this was accompanied by an increase of about 32,000 infections to 90,147 and 200 deaths to 1,311, by the end of December 2020. Three months later, by the end of March 2021, the number of confirmed cases had increased substantially by over 73,000 from the previous 90,147 to 163,793 confirmed cases, while the number of deaths increased by about 600 from the previous 1,311 to 1,907 in December 2020. Thus, infection and death cases increased substantially during the months of substantial relaxation of restrictions between October 2020 and March 2021. The infection rate, however, diminished substantially after March 2021. In the three months between April and June 2021, the number of confirmed infection and death rates rose by only about 3,000 and 200 respectively to 167,000 confirmed cases and 2,117 deaths, respectively.

## 2. Data sources and analytical methods

The study is based on both quantitative and qualitative data sources from Nigeria. The quantitative data involved three rounds of primary data collected from 110 households. The households were drawn from a 2018 APRA-Nigeria survey sample of 2,109 rural farm households from two states; Ogun in the south-west and Kaduna in the north-central region (Muyanga et al., 2019). The APRA-Nigeria survey collected data on sampled households' telephone numbers. This information proved useful since the current survey had to be phone-based due to the COVID-19 pandemic. The APRA-Nigeria survey covered three Local Government Authorities (LGA) in each state: Imeko Afon, Ijebu East, and Obafemi Owode in Ogun, and Chikun, Kachia, and Soba in Kaduna. Twelve wards from Ogun State and nine from Kaduna State were covered.

At the beginning of the current study, in June 2020, the two APRA-Nigeria survey states appeared to be equally hit by the COVID-19 pandemic. Ogun State had 280 confirmed cases, while Kaduna State had 288. It is important to mention that Ogun borders Lagos State, the epicentre of COVID-19 in Nigeria at that time, which had 4,300 cases. Kaduna State borders the Federal Capital Territory (Abuja) which ranked third in the number of reported cases in Nigeria. By June 2020, Nigeria had 10,578 confirmed COVID-19 cases and 299 deaths related to the pandemic.

While all three APRA-Nigeria survey LGAs in Ogun State had confirmed cases of COVID-19, only two LGAs (Chikun and Soba) had confirmed cases in Kaduna State. Consequently, the sub-sample for the COVID-19 survey were drawn from three LGAs in Ogun State and two LGAs in Kaduna State. Two

wards were picked from each LGA for inclusion in this study. From each of the selected LGAs, 20 households were randomly picked for interviews, resulting in a COVID-19 survey sample of 100. In terms of gender, half of the total households to be interviewed in each LGA were female-headed households. However, it emerged during sampling that some LGAs had less than 10 female-headed households. Consequently, to end up with 50 female-headed households in the sample, these households had to be oversampled. The COVID-19 survey sample is presented in **Table 1**.

Three rounds of household level interviews conducted between July 2021 and March 2021. R1 commenced on 14 July 2020, while R2 and R3 commenced on 30 September 2020, and 15 February 2021, respectively. The interviews were conducted using semi-structured questionnaires by phone, by a team of eight well-trained enumerators using the World Bank's Survey Solutions software. In total, 110 rural farm households (47 female-headed and 63 male-headed) were interviewed. The household-level data was complemented by seven in-depth key informant interviews conducted in the five LGAs. These involved interviewing knowledgeable local officials and community representatives. The key informant interviews were aimed at providing additional insights into the impacts of the COVID-19 pandemic on the livelihoods of the study communities.

Data analysis was carried out using descriptive methods and reported in tables and graphs. Information collected through key informant interviews were analysed through qualitative techniques. The analysis reported in this paper compares the COVID-19 impacts in the second quarter of 2020 (R1), the third quarter of 2020 (R2), and the period comprising the fourth quarter of 2020 and first quarter of 2021 (R3). The second quarter of 2020 corresponds with R1, and the period of maximum COVID-19 related restrictions on movement and public gatherings, while the third quarter of 2020 corresponds with R2, and the period of moderate relaxation of COVID-19 related restrictions. The period extending from the fourth quarter of 2020 to the first quarter of 2021 corresponds with R3, and

the period of substantial relaxation of COVID-19 related restrictions nationwide.

### 3. Results

#### 3.1 Compliance with COVID-19 guidelines and support to households

##### 3.1.1 Compliance with COVID-19 guidelines and incidences

To control the spread of the virus, the Federal Government of Nigeria, through the National Centre for Disease Control (NCDC), released COVID-19 prevention guidelines. These included: (1) mandatory use of face masks in public spaces; (2) avoidance of crowded places; (3) maintenance of social distancing of at least 1m apart in large gatherings or enclosed spaces; (4) frequent washing of hands, avoiding touching eyes, mouth, or nostrils with unwashed hands; and (5) keeping the environment clean and sanitised.

The study results show that as much as 86% of households complied with the government-issued COVID-19 regulations in R1. This number dropped to 64% in R2, and then to 48% in R3. The major reasons for non-compliance with the government guidelines were, in order of importance: COVID-19 cases were rare in the sampled communities; the inconvenience of wearing face masks, frequent washing of hands and maintaining social distancing; and the inadequate enforcement of the regulations by government. This limited compliance with government guidelines due to scepticism about the seriousness of the outbreak is not limited to Nigeria but is also observed in other countries across sub-Saharan Africa. For example, Assaye and Alemu (2020) also found this scepticism to be a major reason for limited compliance with government guidelines in Ethiopia.

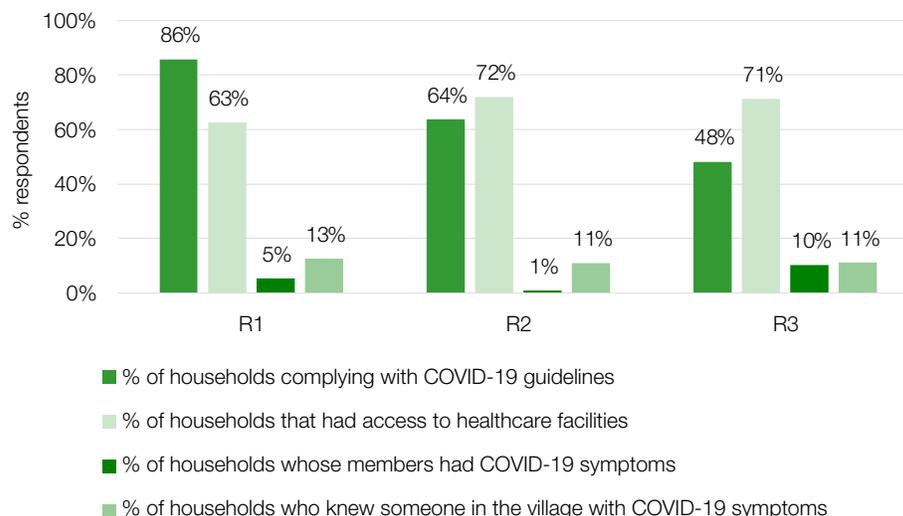
The proportion of respondents who had someone in their households with COVID-19 symptoms fell from 5% in R1 to below 1% in R2, but then rose substantially to 10% in R3. The observed rise in cases of COVID-19 symptoms in R3 mimicked national infection numbers

**Table 1: Nigeria COVID-19 survey sample**

State	Selected LGA	Selected ward	COVID-19 sample		
			Male headed	Female headed	Sub-total
Ogun	Imeko Afon	Imeko, Obada	15	5	20
	Ijebu East	Itele, Imobi	10	10	20
	Obafemi Owode	Owode, Alapako	4	16	20
Kaduna	Chikun	Rido, Kunai	4	16	20
	Soba	Gami Gira, Dani Wata	17	3	20
Total			<b>50</b>	<b>50</b>	<b>100</b>

Source: Own calculations from APRA COVID-19 Rapid Assessment Surveys

**Figure 1: Compliance with COVID-19 guidelines, incidences, and access to healthcare**



Source: Own calculations from APRA COVID-19 Rapid Assessment Surveys

which showed a spike in infection rates between November 2020 and February 2021 (**Figure 1**). The observed decline in compliance to safety guidelines in R2 and R3 may have contributed to the surge in COVID-19 infection rates nationally.

The results also suggest that the COVID-19 pandemic only moderately affected access to health care facilities in the sampled households. About 37% of households were unable to access healthcare services in R1, mainly due to COVID-19 related restrictions in movement, as well as the reluctance of several healthcare facilities to take in sick patients as a measure to protect their personnel (**Figure 1**). This proportion, however, dropped moderately to 28% and 29% in R2 and R3, respectively.

The moderate improvement in access to healthcare facilities in R2 and R3 could be attributed to the relaxation of restrictions to movement and improvement in the capacity of healthcare providers to attend to suspected COVID-19 infection cases. It should be noted that several multilateral development and aid organisations supported the government to increase the capacity of the healthcare system to better serve the population during the first six months of the pandemic. For example, the United Nations Children’s Fund (UNICEF) supported the virtual training of 21,078 frontline health care workers from primary and tertiary secondary health facilities, and subsequent face-to-face training of 19,824 community health care workers in 19 states. UNICEF also supported the training of 140 healthcare workers on case management of COVID-19 and provided logistic support to accredited COVID-19 laboratories with decentralised sample collection and

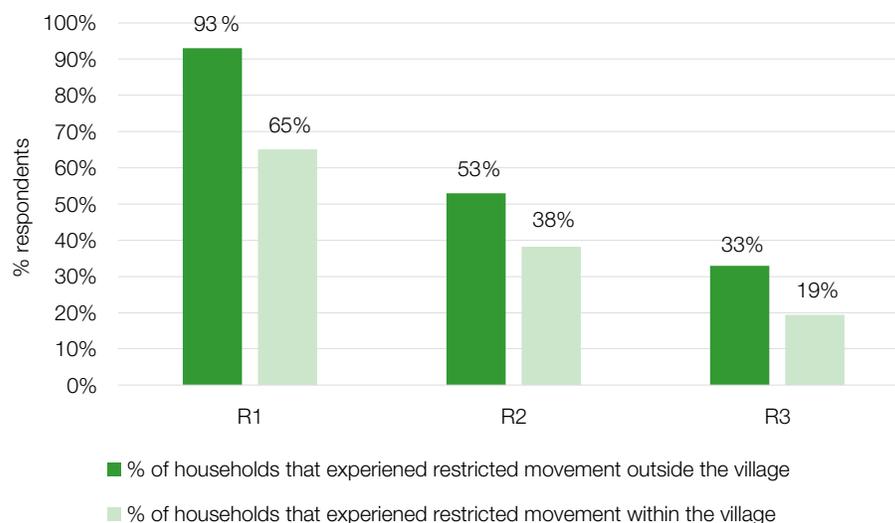
transport, to increase testing efficiency in Ondo State (UNICEF, 2020).

### 3.1.2 Controls on human and vehicular movements

In addition to the general safety guidelines for the prevention of spread of COVID-19, the Federal and State Governments imposed total or partial restrictions on human and vehicular movements starting from 30 March 30, 2020. The nature and intensity of these lockdowns varied from state to state and over time during the first three months. Many states initially had lockdowns for three to four days a week, while in other states the lockdowns involved restrictions in movements in the night hours. Most states also complied with initial Federal Government directives which included: imposition of a curfew from 8pm (later from 10pm) to 4am; closure of schools at all levels from primary to tertiary; suspension of all political and religious gatherings and meetings; closure of international and domestic airports; limitation of any form of social gatherings including burials, birthday parties and weddings to a maximum of 20 persons; reduction of market days to a few days in a week; reduction in public transportation carrying capacity to a maximum of 50–70%; closure of state borders to reduce inter-state transmission; and reduction in weekly working hours in the public service. Consequently, this study also sought to find out how households responded to controls in human movements.

The study results show that 93% of households reported restrictions to movement outside their communities in R1. This proportion declined to 53% in R2, and further to 33% in R3 (**Figure 2**). This result is in line with the trend in the government’s enforcement

**Figure 2 : Households experiencing movement restrictions**



Source: Own calculations from APRA COVID-19 Rapid Assessment Surveys

of the controls on movement at the national level during an 11-month period between April 2020 and February 2021. At the national level, restrictions in movement and public gatherings were heaviest in the second quarter of 2020. The third quarter witnessed light restrictions, while the fourth quarter in 2020 and first quarter of 2021 were characterised by zero restrictions on movement. This result corroborates the findings of Carreras, Saha, and Thompson (2020) in their cross-country synthesis, in which the authors observed that individuals drastically decreased their movements both within and outside their own villages during the COVID-19 crisis, except for Tanzania where travel restrictions and lockdown measures were limited.

In addition, we observe that households that experienced school closures fell from 100% in R1, to

77% in R2, and further to 27% in R3. The delay in the resumption of schooling in some academic institutions was due to lack of sufficient capacity to comply with federal and state government regulations on the required safety measures before reopening. Qualitative information obtained during the fieldwork indicates that among the direct consequences of the school closures, which in some cases lasted 6-9 months, was that most girls spent their lost school time doing housework, while most boys were engaged in farm work and paid work away from home.

### 3.1.3 COVID-19 care and assistance to households

To ameliorate the hardship created by COVID-19 restrictions, several government agencies, non-governmental organisations (NGOs), religious organisations, community organisations, private sector

---

*“The government restricted us from moving about by imposing a lockdown, all schools were closed, markets were closed except for particular days, all social, political and religious gatherings were restricted to very few numbers, transport system was restricted, in fact, there was no access to extension and veterinary services, all these brought untold hardship on the people”*

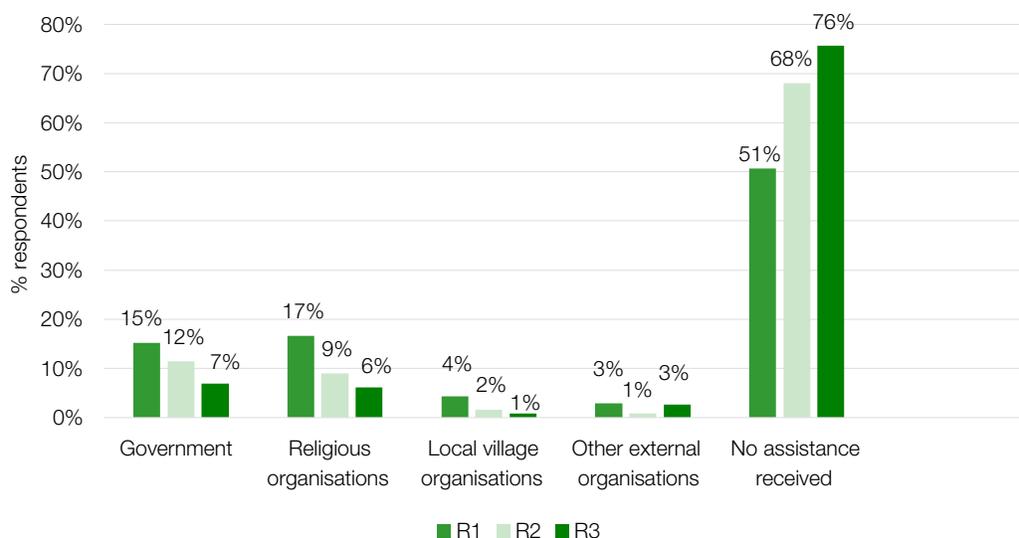
*Supervisor for Agriculture, Ijebu-East LGA, Ogun State, Nigeria (R1)*

*“Lockdown was imposed by both the Federal and State Government and the LGAs took a cue on enforcement. Access to state services such as education during the lockdown period was via radio and television, as well as online platforms. Healthcare suffered as most public hospitals were not accepting patients and the private ones were very selective. This resulted in a lot of deaths that were non-COVID-19 related. At that time, it was a death sentence to be sick and not be mobile or highly connected. Some relief came later when pharmacies were allowed to open.”*

*Mrs. Grace Yohanna, Maraban-Rido village, Rido Ward, Chikun LGA, Kaduna State (R1)*

---

**Figure 3: Percentage of households that received COVID-19 related assistance, by source**



Source: Own calculations from APRA COVID-19 Rapid Assessment Surveys

organisations and individual philanthropists stepped up to aid needy households. Assistance was provided mainly in terms of food, farm inputs, sanitary materials, and public health advice. According to Nigeria Food Security Outlook (2021),<sup>1</sup> humanitarian actors helped about 3.5 million beneficiaries in August 2020 across Borno, Yobe, and Adamawa states. About 1.5 million people benefitted with food assistance, while about 1.9 million others received livelihood assistance across the three north-east states. This provision of food assistance by humanitarian groups was sustained in the north-east through September and October 2020, to about 70% of intended beneficiary’s kilocalorie needs.

This study sought to find out if the sampled households received any kind of COVID-19 related assistance. The findings show that about 49% of surveyed households received some form of COVID-19-related assistance in R1. This proportion declined to 32% in R2, and further

reduced to 24% in R3. More specifically, the proportion of households that received COVID-19 related assistance from religious organisations, government agencies and families/friends in R1 were 17%, 15%, and 10%, respectively (**Figure 3**). These proportions declined to 9%, 12%, and 9%, respectively in R2, and reduced again to 6%, 7%, and 8% in R3. It was observed that religious organisations were the most prominent assistance providers at the beginning of the pandemic. Later, government and families/friends took the lead. In summary, non-governmental sources combined aided a substantially greater proportion of households compared with government sources during the first year of the COVID-19 pandemic in Nigeria.

The COVID-19 pandemic was also found to increase the household burden of care in Nigeria. The study results show that the proportion of households that reported an increase in the burden of care for the

---

*“The government supplied face masks, sanitiser and palliatives (raw foods such as rice, beans, noodles, garri, pack vegetable oil etc). Religious institutions supported members with palliatives (raw food) and face masks and sanitisers. Political parties assisted with palliatives and other items for their members. Most private sector [organisations] supported government initiatives and donated to the government e.g., Bigi Cola Beverage Company and Dangote Group. Some NGOs assisted the government in providing palliatives and protective materials.”*

*Women leader, Adebandede-Ijebu village, Adebandede Ward, Ijebu-East LGA, Ogun State (R1)*

*“The state was pro-active in enforcing safety measures. But now, the lockdown is fully relaxed. The government did not provide anything, except on media, only provided sensitisation/awareness.”*

*Community youth leader, Rido village, Kujama Ward, Chikun LGA, Kaduna State (R2)*

---

<sup>1</sup> “Despite the main harvest, food assistance needs remain high across northern conflict-affected areas” (Nigeria Food Security Outlook (2021).

elderly and sickly, children, visiting families/friends, and household chores in R1 were 26%, 69%, 29% and 71%, respectively. These proportions changed to 27%, 58%, 43% and 63% in R2, and to 29%, 47%, 30% and 43% in R3. This suggests that household chores (such as cooking, cleaning, fuel, and water collection), and care for children became more burdensome for most households during the COVID-19 pandemic. However, most households did not experience an increased burden of household chores and childcare during R3. This could be attributable to the substantially relaxed government restrictions in movement and public gatherings between October 2020 and February 2021.

### 3.2 Impact of the COVID-19 pandemic on agricultural production

#### 3.2.1 Household participation in farm and off-farm businesses

The study investigated ways in which the COVID-19 pandemic impacted households' participation in farm and off-farm business activities. Specific areas of investigation included access of household members to off-farm work outside their community, and access to hired labour for farm and off-farm activities. Generally, household participation in off-farm work (Figure 5) and access to hired farm labour (Figure 4) was *substantially lower* during the period of the COVID-19 lockdown compared with the periods with lighter restrictions on movement. In most parts of Nigeria, hired farm labour, which is mostly casual, is provided by migrants across states borders. Thus, the COVID-19 related restrictions in movement severely affected the supply of labour for farming operations,

especially during the second quarter of 2020 which coincided with the planting season. This finding was in line with the expectation that a nationwide movements restriction would negatively affect access to hired farm hands at the household level.

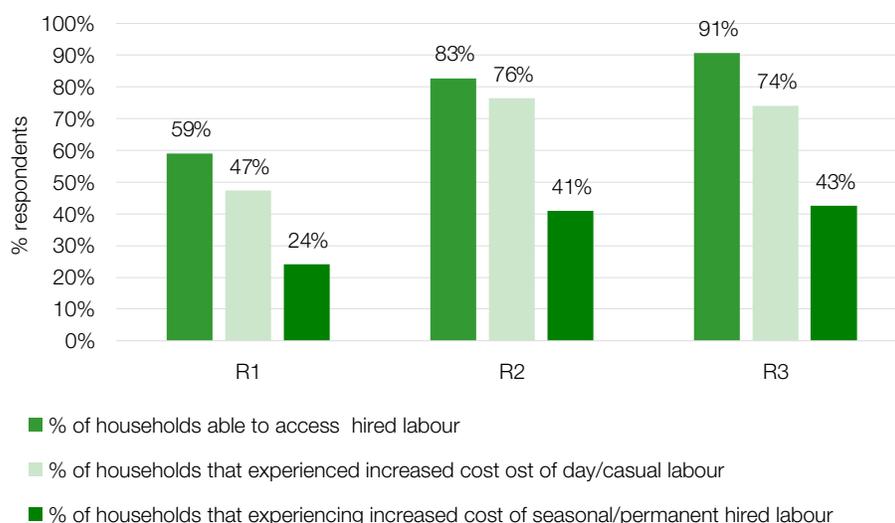
More specifically, the results show that about 59% of households were able to hire labour for their farming activities in R1. This increased to 83% in R2 and then to 91% in R3 (Figure 4). This reduction in access to farm labour, especially during the planting season, obviously led to low crop production and consequent high prices of agricultural products in 2020.

The spatial farm labour supply deficit caused by restricted movement may have put upward pressure on the cost of hired labour. The study showed that 47% and 24% of interviewed households experienced an increased cost in day/casual labour and seasonal/permanent labour, respectively, during R1. These proportions increased substantially to 76% and 41%, respectively, in R2 and to 74% and 43% in R3. In a nutshell, this is clear evidence of the increasing cost of farm labour as a major consequence of the COVID-19 crisis in Nigeria.

#### 3.2.2 Households' access to farm inputs

The study also investigated the availability of various farm inputs such as tillage services, fertiliser, pesticides, insecticides, and other agrochemicals during the COVID-19 pandemic. In R1, a sizeable proportion of households reported having experienced a decrease in the availability of farm inputs as shown in Table A1. For example, the proportion of households reporting

Figure 4: Access to hired labour and labour costs



Source: Own calculations from APRA COVID-19 Rapid Assessment Surveys

decreased access to farm inputs (e.g., seeds, fertilisers, agrochemicals, and veterinary drugs) in R1 was 59%. This proportion declined substantially to 17% in R2, before slightly increasing to 23% in R3 (**Table A1**). The proportion of households reporting decreased access to rentable farmland in R1 was 32%. This proportion declined to 17% in R2 and to 13% in R3. COVID-19 related disruptions in access to agricultural inputs (including labour), extension and advisory services, and output markets for many farmers in Eastern Africa was reported by the Food and Agriculture Organization of the United Nations (FAO, 2020). Agyei-Holmes et al. (2021) also found that the pandemic had imposed constraints on input supply, which is particularly damaging for sub-sectors which rely on imported inputs, including fertiliser, seed, and agrochemicals. Porciello et al. (2020) and Willy et al. (2020) also found similar results. The study by Ogisi and Begho (2021) provides a different explanation to the reduced access to inputs that households in Nigeria faced during COVID-19. The study found that 80% of sampled farm households in Delta State reported a decrease in income from remittances, which coincided with the planting season and therefore resulted in an inability to afford farm inputs. Farmers consequently resorted to either reducing the area planted or delaying planting altogether.

Furthermore, increases in prices of tillage services, agricultural land for rent, and purchased farm inputs was experienced by a significant proportion of interviewed households. About 49%, 56% and 89% of households reported increased prices of tillage services, agricultural land for rent, and purchased farm input respectively in R1 (**Table A1**). These proportions

increased slightly to 50%, 56%, and 92%, respectively, in R2, but fell substantially to 35%, 51%, and 80% in R3. The impact of the COVID-19 pandemic on agricultural input prices was most profound with purchased farm inputs such as seeds, fertilisers, agrochemicals, and veterinary medicines compared with tillage services and agricultural land. In a similar study in Ethiopia by Assaye and Alemu (2020), 71% of farmers stated that they had encountered increases in prices of agricultural inputs during the COVID 19 pandemic.

Consequently, it can be safely concluded that the COVID-19 pandemic was characterised by reduced

---



---

*“The outbreak affected agricultural production in many ways. Unavailability of inputs, high cost of available inputs, scarcity of labour, reduced cultivated land and low production. Lockdown did not prevent villagers from going to farms, but people living in the town found it difficult to go to farms. Labour was scarce, as those who work for us have no means to come in, no access to mechanised farming or implements. Inputs were costly and not available: fertiliser and herbicides for example were not readily available. In the local market, the price of farm produce was low, because the buyers were not allowed to come to the market (glut) and there is no money in circulation. The situation is reversed in the regional markets because of restrictions in transportation of goods, especially interstate.”*

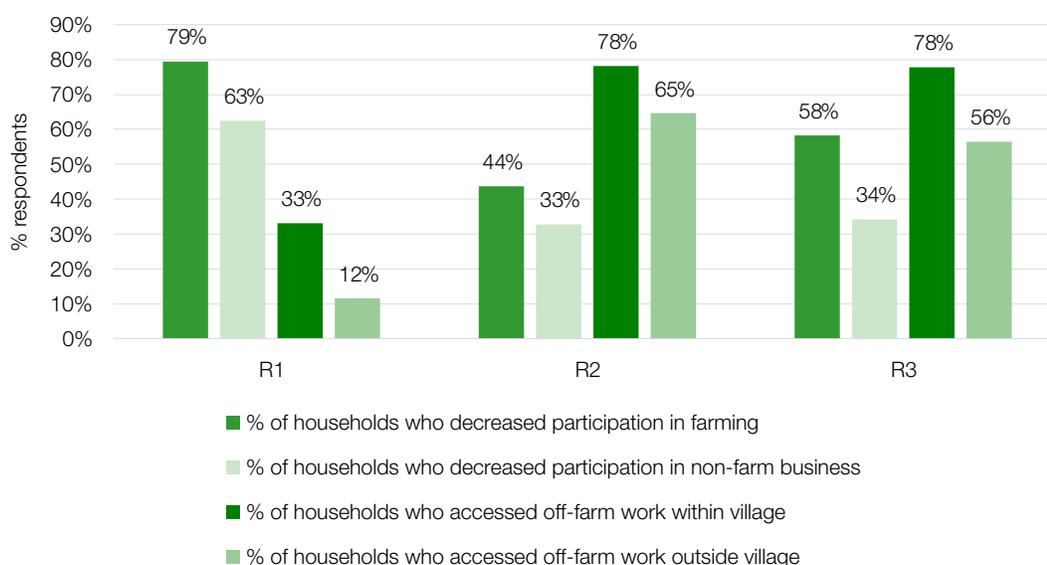
*Chairman, All Farmers Association of Nigeria, Obafemi Owode LGA Branch (R1)*

---



---

**Figure 5: Impacts of COVID-19 on households’ participation in farm and off-farm work**



Source: Own calculations from APRA COVID-19 Rapid Assessment Surveys

access to farm inputs and services especially during the lockdown period (R1). As expected, this was accompanied by increased agricultural inputs prices. However, access to farm inputs and services improved significantly with the relaxation of the restrictions in movement of human and material resources in R3.

### 3.2.3 Participation and access to farm and off-farm work

In **Figure 5**, the impact of COVID-19 on households' participation in farm and off-farm work is revealed. The results show that as much as 79% and 63% of households experienced decreased participation in farm and non-farm business activities, respectively, in R1. These proportions however fell to 44% and 33%, respectively, in R2, and to 58% and 34%, respectively, in R3. Conversely, the ability of farm households to access off-farm work was negatively affected by the COVID 19

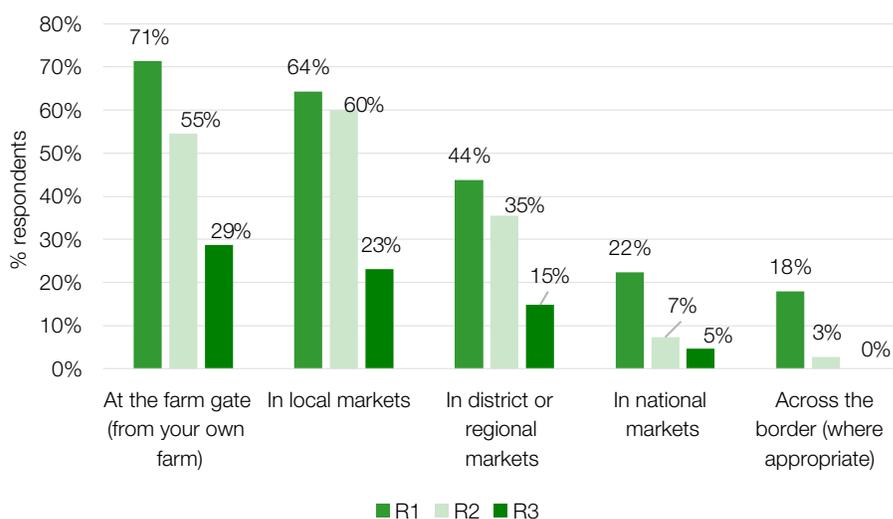
lockdown. Only 33% and 12% of households were able to access off-farm work within their community and outside their community, respectively, in R1. These proportions, however, increased substantially to 78% and 56%, respectively, in R3.

These results suggest that the COVID-19 related restrictions on movement had substantial negative effects on the participation of households in farm and non-farm business activities. This finding is supported by Nigeria Food Security Outlook (2021) which reported that the indirect impacts of the COVID-19 pandemic led to significant impacts on the ability of many poor households to engage in income-earning activities.<sup>2</sup> Thus, the relaxation of the government restrictions on movement and public gatherings in the beginning of the third quarter of 2020 eased participation in and access to farm and off-farm activities by households.

*“Honestly, there was a drastic drawback on agricultural sector production due to the lockdown. Land is readily available, labour is not available, inputs are not easy to access as most come in from the north, which have been affected by the interstate travel ban and border closures, and to make matters worse, no money. Stay at home [the lockdown] really affected who goes to the field until the introduction of the official movement pass. The lockdown affected key agricultural activities, land preparation was not easy, there was no access to mechanised farming implements, no easy access to fuel and diesel, in fact, a scarcity of labour makes planting, weeding, and harvesting difficult. Buying food and other things becomes a bit difficult, imagine 1t of cassava which was ₦10,000 going for as high as ₦38,000. However, markets are allowed to open partially [for] rice, beans, garri, cassava flour, cassava tubers.”*

*Lead farmer and traditional chief (Baale Agbe) of Imeko, Imeko village, Imeko Ward, Imeko-Afon LGA, Ogun State (R1)*

**Figure 6: Percentage of households reporting reduced ability to sell farm produce**



Source: Own calculations from APRA COVID-19 Rapid Assessment Surveys

<sup>2</sup> “Despite the main harvest, food assistance needs remain high across northern conflict-affected areas” (Nigeria Food Security Outlook, 2021)

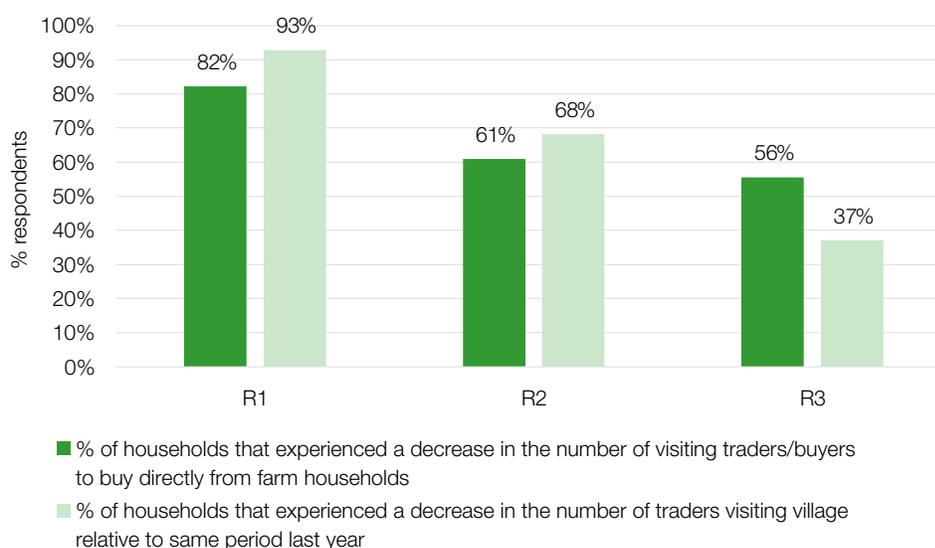
*“All markets were closed so the prices of produce have increased. There is no money in the hands of the people so the ability to buy food has reduced. There was no money in circulation. There was a hike in prices of goods such as rice, maize, sorghum and cowpea.”*

*Residents Danwata village, Danwata Ward, Soba LGA, Kaduna State (R1)*

*“Local farmers could not sell their produce (glut) due to restrictions, yet [there is a] scarcity of food items at regional markets, hence they are very expensive. High cost of transportation and hike in price of food items. Foodstuffs were available but costly. Price of food item went up, e.g. garri, rice, beans, yam, plantain.”*

*Supervisor of Agriculture, Ijebu-East LGA, Ogun State (R1)*

**Figure 7: Impact of COVID-19 on movement of traders in and out of the village**



Source: Own calculations from APRA COVID-19 Rapid Assessment Surveys

### 3.2.4 Sales and business activities

This study sought to find out how households' ability to sell farm produce was impacted by COVID-19 (Figure 6). The results show that households reporting a decreased ability to sell farm produce at the farm gate and local markets stood at 71% and 64%, respectively, during the lockdown period (R1). These proportions, however, decreased to 55% and 60% in R2 and to 29% and 23% in R3 when lockdowns were substantially reduced. Similar findings were also observed in relation to the ability of households to sell farm produce in regional, national, and cross-border markets. In a similar study in Ethiopia, Assaye and Alemu (2020) reported that one-third (33%) of respondents reported a reduction in their ability to sell produce in local markets; a trend associated with a decrease in mobility and the reduced number of buyers and traders visiting local markets.

A significant proportion of households (82%) reported that they had experienced a decrease in the number of traders that came into their communities to purchase farm produce during R1. This proportion

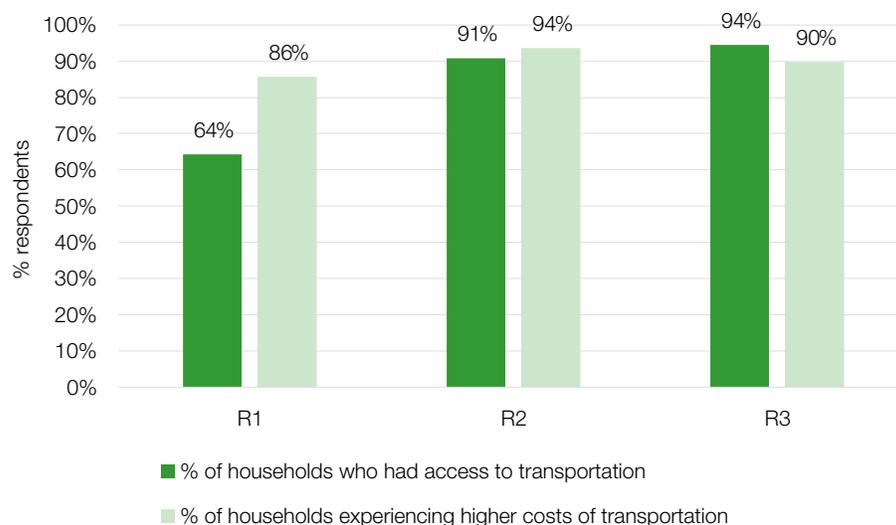
declined substantially to 61% and 56% in R2 and R3, respectively (Figure 7). These results generally indicate that COVID-19 substantially dampened buying and selling activities of farm produce.

### 3.2.5 Impact of COVID-19 on transport costs and modes of payment

Generally, most of interviewed households were able to hire transport to take their farm produce to the point of sale during the COVID-19 pandemic. The proportion of household reporting having access to transport to take their farm produce was 64% during R1 (Figure 8). This proportion went up to 91% and 94% in R2 and R3, respectively, possibly because of the reduced movement restrictions in the fourth quarter of 2020 and first quarter of 2021.

That said, households experienced increasing costs of transportation during the entire 11 months period of the COVID-19 study, despite the relative intensity of restrictions in movement. More specifically, 86% of households experienced increased transportation costs in R1 (Figure 8). This proportion increased to

**Figure 8: Transportation access and cost**



Source: Own calculations from APRA COVID-19 Rapid Assessment Surveys

*“The restriction in the number of passengers by 50% capacity led to a hike in transport fares.”  
Community women leader, Rido village, Rido Ward, Chikun LGA, Kaduna State*

*“People could not move in or out of town (except on lock-free days). Transport was restricted to lock-free days. Cross-border trade was restricted.”  
Chairman, All Farmers Association of Nigeria, Obafemi-Owode LGA, Ogun State*

*Local farmers could not sell their produce (glut) due to restrictions, yet there was a scarcity of food items at regional markets, hence were awfully expensive. High cost of transportation and hike in price of food items. Foodstuffs were available but costly. Price of food item went up e.g., garri, rice, beans, yam, plantain.”  
Women leader, Adebandede-ljebu village, Adebandede Ward, Ijebu-East LGA, Ogun State (R1)*

**Table 2: Proportion of households that experienced COVID-19 related changes in food availability and food prices**

	R1	R2	R3	R1	R2	R3
	Decreased availability			Increased prices		
Grains	50%	26%	12%	91%	91%	95%
Roots/tubers/plantains	64%	29%	20%	88%	84%	86%
Pulses, nuts, and seeds	46%	22%	18%	65%	65%	82%
Milk and milk products	38%	20%	11%	70%	84%	95%
Meat and poultry	41%	20%	12%	83%	85%	94%
Fish and seafood	44%	20%	17%	73%	80%	85%
Eggs	37%	20%	10%	60%	85%	93%
Dark green leafy vegetables	15%	12%	13%	32%	37%	60%
Other vegetables	35%	16%	12%	37%	37%	64%
Other fruits	39%	17%	16%	45%	45%	68%
Processed foods	45%	14%	14%	58%	60%	72%

Source: Own calculations from APRA COVID-19 Rapid Assessment Surveys

94% in R2, a period of light restriction in movement, but declined slightly to 90% in R3 which was a period with no restrictions.

The study further found that 80% and 31% of households used cash and electronic transfers, respectively, for payment in R1. These proportions increased to 99% and 39%, respectively, in R2, and to 99% and 4 % in R3.

### 3.3 Impact of COVID-19 on food and nutrition security

#### 3.3.1 Food availability and prices

The study findings show that households experienced a decrease in food availability during the first 11 months of the COVID-19 pandemic in Nigeria. **Table 2** presents the proportion of households that reported having experienced COVID-19 related changes in food availability

or food prices over the three surveys. In R1, a decrease in food availability was most prevalent for white roots, tubers and plantains (64%) and grains (50%). In a different study in Delta State, Onokerhoraye et al. (2021) found that the vast majority of the respondents (91.25%) indicated that there were times that they could not access the markets to purchase what they needed in their households because of movement restrictions and the closure of markets. According to the authors, food availability was further constrained by the inability to perform normal farming and food processing activities which led to crop losses and food shortages. The situation, however, improved substantially after the relaxation of the nationwide lockdown with fewer households reporting a decrease in food availability in R2 and R3.

As expected, households reported increases in food prices over the study period. The results show that households experienced persistent increases in food prices. Specifically, over 70% of households reported an increase in prices of staple food items (e.g., grains, roots and tubers, plantains, meat and poultry, fish and sea foods, and milk and milk products) in R1 relative to the pre-COVID-19 period. The food price situation worsened in R2 and R3. For example, the proportion of households reporting an increase in the price of eggs and dark green leafy vegetables increased by 33% and 28%, respectively, between R1 and R3. This is in line with the findings of Onokerhoraye et al. (2021), who revealed that over 94% of sampled households in Delta State reported increasing food prices since the COVID-19 lockdown commenced in March 2020. FAO (2021), also observed that food price increases accompanied the restrictions on movements of people and material across 11 countries that had pre-existing food insecurity situations. Furthermore, GAIN (2020) asserted that food prices in several countries were higher than pre-pandemic levels.

As GIEWS (2020) reported, these observed increases in food prices may not be solely attributable to COVID-19 effects. The increase could also be due to the closure of the borders with neighbouring countries, implemented in Nigeria in August 2019 to curb the smuggling of imported rice and maize, the continued depreciation of the local currency, the decline in foreign reserves, the high inflation rate, as well as high transportation costs due to the 20% increase in petrol prices in July 2020. The GIEWS report noted that as of July 2020, prices of all cereal products were at least 50% higher than their year-earlier values, with peaks in the conflict-affected areas of the north-east due to the impact of persistent insecurity. According to

**Table 3: Proportion of households whose food consumption and nutrition status were affected by COVID-19**

	R1	R2	R3
<b>Food consumption</b>			
Members did not have enough food to eat	81%	70%	54%
Some members skipped a meal	79%	62%	44%
Household ate less than they thought they should	79%	75%	53%
Household ran out of food	65%	53%	33%
Members were hungry but did not eat	63%	47%	32%
Household went without eating for a whole day	18%	16%	3%
Not enough food to meet your family's needs	76%	69%	49%
<b>Nutrition</b>			
Unable to eat healthy and nutritious food	82%	74%	63%
Ate only a few kinds of foods	81%	77%	68%

Source: Own calculations from APRA COVID-19 Rapid Assessment Surveys

*“Access to healthy and nutritious food by households was really very difficult especially during the second quarter of 2020 [R1] due to the lockdown. The situation was a bit eased during [R2].”*

*Community women leader, Maraban-Rido village, Rido Ward, Chikun LGA, Kaduna State (R3)*

*“COVID-19 really compounded the difficulties faced by households in terms of gaining access to good food. It was hell for most families to get food let alone nutritious food. Skipping of meals was normal when the lockdown lasted.”*

*Women leader, Adebandede-ljebu village, Adebandede Ward, Ijebu-East LGA, Ogun state, Nigeria (R3)*

GIEWS (2020) about 7 million people were estimated to be food insecure between June and August 2020 as against 5 million in the same period in 2019. Some localised cereal production shortfalls, the escalation of armed and community conflicts, and high inflation rates were identified as the main drivers of this observed increase. The report further stated that the situation was expected grow worse in the fourth quarter of 2020 and beyond due to the expected adverse effect of the COVID-19 containment measures on households’ livelihood activities and incomes, especially in urban areas.

### 3.3.2 Food consumption and dietary diversity

Households’ food consumption and nutrition were also affected adversely by the COVID-19 pandemic. The household level survey results show that about 82% of the household interviewed in R1 were unable to eat healthy and nutritious food (**Table 3**). This proportion declined to 74% in R2 and then to 63% in R3. Furthermore, 79%, 64% and 44% of households claimed that members had to skip a meal because of lack of sufficient money in the R1, R2 and R3, respectively. Also, 62% of households reported situations in which members were hungry but could

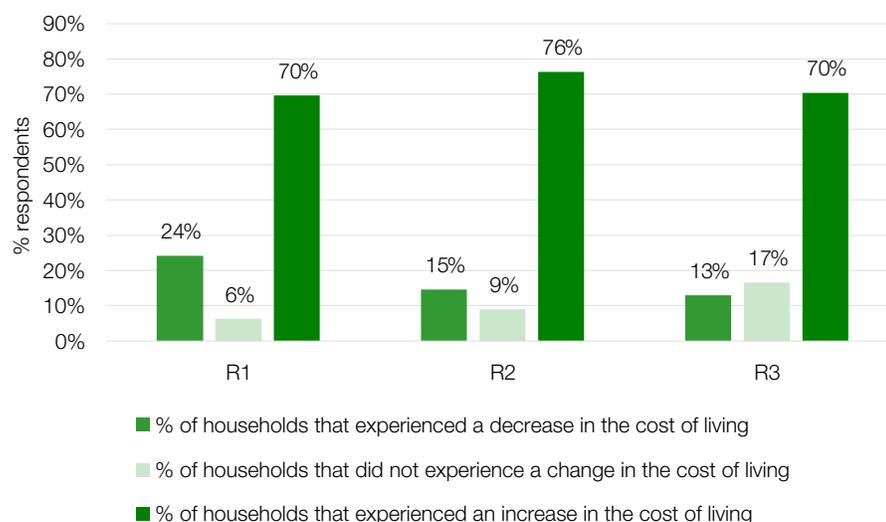
not eat because of lack of resources to procure food during the lockdown period in R1. This proportion declined to 47% in R2 and to 31% in R3. About 76%, 69% and 49% of the interviewed households reported having not had enough food for their family members across the three survey waves. Only about 18% of the households reported that they had had members who did not eat for a whole day due to lack of resources in R1. This proportion went down to 16% in R2 and 3% in R3.

In terms of dietary diversity, 81% of households reported that members ate only a few kinds of food because of a lack of money in R1. This proportion declined to 77% and 68% in R2 and R3, respectively. These findings are in line with that of FAO (2020), which observed that COVID-19 had adversely affected food and nutrition security and rural livelihoods in Eastern Africa. Meanwhile, Yazdanpanah et al. (2021) found that studied communities in southern Iran were also not receiving optimal nutrition during the pandemic.

### 3.3.3 Change in wellbeing of the households

The study investigated the overall change in wellbeing of households using two measures. First, households

**Figure 9: Changes in overall cost of living**



Source: Own calculations from APRA COVID-19 Rapid Assessment Surveys

were asked to state whether the overall cost of living had changed for their household since the last interview. The results showed that about 70% had experienced a higher cost of living during R1, relative to the pre-COVID-19 period (**Figure 9**). This proportion rose to 76% in R2 and reverted to 70% in R3. This is an indication of rising poverty among households due to declining real income.

Second, households were asked the following question: “Please imagine a nine-step ladder, where on the bottom, the first step, are those who are totally unable to change their lives, while on the ninth step, the highest step, stand those who have full control over their own life. In which step would you place your household?” The results show that the average score for households in R1 was 5. This declined to 3 in R2 but rose back to 5 in R3 when restrictions were at their lowest. The result indicates that the COVID-19 pandemic substantially reduced the ability of households to exercise control over their own lives. Carreras, Saha and Thompson (2020) found that people surveyed across seven countries (Ethiopia, Ghana, Kenya, Malawi, Nigeria, Tanzania, and Zimbabwe), generally tended to regain more control over their lives as lockdowns eased.

#### 4. Conclusions

This study focused on documenting and understanding the differential impacts of the COVID-19 pandemic at the household level in terms of agricultural commercialisation, food and nutrition security, labour and employment, and poverty and well-being in rural Nigeria. The findings show that compared with the pre-COVID-19 period, rural farm households in Nigeria experienced the following challenges. First, households experienced a substantial and sustained increase in the cost of tillage services, land rentals and casual labour, as well as prices of other purchased farm inputs due to COVID-19 lockdowns. Second, these, in addition to restricted flow of farm labour, and reduced access to agro-services and farm inputs, led to a decline in land area under cultivation.

Third, there was evidence of increasing food prices, reduced income inflow to households and a consequent decline in household food consumption and dietary diversity. Fourth, the results show a severe negative effect of the nationwide COVID-19 lockdown on child education. Most households reported that boys and girls spent a substantial amount of the time schools were closed participating in non-school related work and leisure activities.

Fifth, qualitative information collected during the study revealed that some negative impacts of the COVID-19 lockdown on livelihoods were alleviated in R3 compared to R1. Some of the observed areas of improvement between R1 and R3 were:

- Increased availability of purchased farm inputs.
- Better access to farm-gate markets and increase in food availability.
- Increased engagement of farm households with buyers/traders from outside the community.
- Improvements in food consumption and dietary diversity.

Even though the study locations, Kaduna, and Ogun states, were among the first seven states in rank on the NCDC’s list of confirmed COVID 19 cases, less than 5% of sampled households had seen someone with COVID-19 in their community. Consequently, it can be said that the negative effects of the COVID-19 pandemic on livelihood recorded in this study is largely due to government lockdowns and restrictions in movement rather than direct COVID-19 infections.

Based on the findings of this study, it is recommended that the federal and state governments in Nigeria consider the following actions to mitigate the lingering effects of COVID-19 lockdowns on the livelihood and welfare of the people. First there is need for the governments to actively support the recovery of informal sector non-farm and off-farm businesses that have suffered due to COVID-19 restrictions and the lockdown. This will result in the reabsorption of workers into the labour force and the employment of new workers. This support can come in the form of increasing access to loanable funds, cheaper transportation, and subsidised raw materials and electricity. One-off recovery grants to qualified businesses with specific conditions could also be considered.

Second, it is important for the federal and state governments to address the issue of rising costs of food that resulted from declining crop and livestock yields, which indirectly arose from reduced access to and rising costs of farm inputs and hired labour. The governments intervention in this case can come in the form of direct farm input subsidies as a temporary measure, while working towards a permanent solution which is less distortionary.

Thirdly, federal, state and local governments might need to re-evaluate their commitment to social protection schemes to better provide livelihood support

to targeted vulnerable groups such as unemployed youths and female-headed households with high dependency ratio. Fourth, the COVID-19 crisis in Nigeria was preceded by two important government policy measures; a ban on the importation of rice and an increase in pump price of petrol. These two policy measures have on their own put upward pressure on prices. Consequently, the government could mitigate the upward price effect of the COVID-19 crisis on livelihood of people by temporarily suspending or reversing these two policies.

## References

Agyei-Holmes, A., Wineman, A., Olwande, J., Mwakiwa, E., Vilanculos, O.T. Chiziane, F.A., Ogunbayo, I., Kapuya, T. and Jayne, T.S. (2021) *Impacts of the COVID-19 Pandemic and associated policy responses on food systems in Sub-Saharan Africa: A synthesis of evidence*. Washington DC: International Food Policy Research Institute (IFPRI).

Aromolaran, A.B., and Muyanga, M. (2020) *Impact of COVID-19 on Food systems and Rural Livelihoods in Nigeria, round 2 – December 2020*. APRA COVID-19 Country Report. Brighton: Future Agricultures. Available at: <https://opendocs.ids.ac.uk/opendocs/handle/20.500.12413/16447> (Accessed: 24 June 2021).

Assaye, A. and Alemu, D. (2020) *Impact of COVID-19 on Food Systems and Rural Livelihoods in Fogera Plain, Ethiopia, round 1 – October 2020*. APRA COVID-19 Country Report. Brighton: Future Agricultures. Available at: <https://opendocs.ids.ac.uk/opendocs/handle/20.500.12413/16435> (Accessed: 25 June 2021).

Carreras, M., Saha, A. and Thompson, J. (2020) *Rapid Assessment of the impact of COVID-19 on food systems and rural livelihoods in Sub-Saharan Africa*. APRA COVID-19 Synthesis Report 2, Brighton: Future Agricultures Consortium. Available at: <https://opendocs.ids.ac.uk/opendocs/handle/20.500.12413/15715> (Accessed: 13 November 2021).

FAO (Food and Agriculture Organization of the United Nations) (2020) *Impact of COVID-19 on agriculture, food systems and rural livelihoods in Eastern Africa: policies and programmatic options*. Accra: FAO. Available at: <https://www.fao.org/documents/card/en/c/cb0552en/> (Accessed: 5 July 2021).

FAO (Food and Agriculture Organization of the United Nations) (2021) *Agricultural livelihoods and food security in the context of COVID-19: Results from household surveys in 11 countries with high pre-existing levels of food insecurity – Cross-country monitoring report, May 2021*. Rome: FAO. Available at: <https://www.fao.org/documents/card/en/c/cb4747en> (Accessed: 5 July 2021).

GAIN (Global Alliance for Improved Nutrition) (2020) *Impact of COVID-19 on Food Systems: A Situation Report, Edition 4*. Geneva: GAIN. Available at: <https://www.gainhealth.org/sites/default/files/publications/documents/impact-of-covid-19-on-food-systems-a-situation-report-iv.pdf> (Accessed: 16 November 2021).

GIEWS (Global Information and Early Warning System on Food and Agriculture) (2020) *Nigeria Country Brief*. Rome: Food and Agriculture Organization of the United Nations (FAO).

Muyanga, M., Aromolaran, A. Liverpool-Tasie, S., Jayne, T. and Awokuse, T. (2019) *Changing Farm Structure and Agricultural Commercialization in Nigeria: Livelihoods and Policy Implications*. APRA Working Paper 26. Brighton: Future Agricultures Consortium. Available at: <https://opendocs.ids.ac.uk/opendocs/handle/20.500.12413/14576> (Accessed: 25 June 2021).

Nigeria Food Security Outlook (2021) 'Despite the main harvest, food assistance needs remain high across northern conflict-affected areas', Famine Early Warning Systems Network (FEWS NET) [online]. Available at: <https://fews.net/west-africa/nigeria/food-security-outlook/october-2020> (Accessed: 20 July 2021).

Ogisi, O.D. and Begho, T. (2021) 'Covid 19: Ramifications for progress towards the sustainable development goals (SDGs) in Nigeria', *International Review of Applied Economics*, 35(2): 256-268. DOI: <https://doi.org/10.1080/002692171.2020.1864302>.

Onokerhoraye, A.G., Ogisi, D., Nwoye, M., Eronmhonele, J., Ikelegbe, O. and Onojeta, F. (2021) *The effects of Covid-19 containment measures on the welfare of household members and their livelihoods in delta state, Nigeria*. Centre for Population and Environmental Development (CPED) Policy Brief Series NO. 3. Available at: [https://media.africaportal.org/documents/cped\\_policy\\_brief\\_series\\_2021\\_no\\_3\\_effect\\_of\\_covid\\_19\\_on\\_household\\_welfare.pdf](https://media.africaportal.org/documents/cped_policy_brief_series_2021_no_3_effect_of_covid_19_on_household_welfare.pdf) (Accessed: 16 November 2021).

Porciello, J., Tufan, H., Njuki, J., Winters, P., Mabaya, E. and Coffman, R. (2020) 'Averting hunger in sub-Saharan Africa requires data and synthesis', *Nature* 584: 37-40.

UNICEF (United Nations Children's Fund) (2020) 'Nigeria: COVID-19 Situation Report- #16, August 24-September 20, 2020', *UNICEF* [online], 8 October. Available at: <https://reliefweb.int/report/nigeria/nigeria-covid-19-situation-report-no-16-reporting-period-august-24-september-20-2020> (Accessed: 16 November 2021).

Willy, D., Diallo, Y., Affognon, H., Nang'ayo, F., Waithaka, M. and Wossen, T. (2020) *COVID-19 Pandemic in Africa: Impacts on Agriculture and Emerging Policy Responses for Adaptation and Resilience Building*. TAAT Policy Compact Working Paper No. WP01/2020. Abidjan: African Development Bank.

Yazdanpanah, M., Tajeri, M.M., Savari, M., Zobeidi, T., Sieber, S. and Löhr, K. (2021) 'The impact of livelihood assets on the food security of farmers in Southern Iran during the COVID-19 Pandemic', *International Journal of Environmental Research and Public Health* 18: 5310. <https://doi.org/10.3390/ijerph18105310>.

## Appendices

**Table A1. Percentage of households experiencing change in availability of farm inputs/services as well as prices during the COVID-19 pandemic<sup>1</sup>**

	R1			R2			R3		
	Decrease	Increase	No change	Decrease	Increase	No change	Decrease	Increase	No change
Availability									
Agricultural land to rent	32%	23%	31%	17%	30%	51%	13%	28%	54%
Farm inputs	59%	23%	13%	17%	46%	36%	23%	37%	39%
Tillage services	30%	13%	12%	12%	23%	28%	9%	14%	41%
Agricultural extension services	61%	8%	13%	14%	13%	39%	17%	15%	36%
Loans or credit	35%	2%	6%	26%	3%	6%	19%	11%	18%
Contractual arrangements	23%	0%	1%	16%	2%	4%	9%	7%	5%
Concessionary loans	21%	1%	1%	13%	0%	3%	5%	7%	4%
Prices									
Tillage services	1%	49%	6%	6%	50%	6%	3%	35%	25%
Agricultural land to rent	9%	56%	22%	6%	56%	36%	7%	51%	36%
Farm inputs	1%	89%	5%	1%	92%	6%	2%	80%	13%

Source: Own calculations from APRA COVID-19 Rapid Assessment Surveys

<sup>1</sup> Numbers don't add to 100% because the response category "Not applicable" is not reflected in the Table A1.

Aromolaran, A.B., Muyanga, M., Issa, F.O. and Oladeji, O. (2021) *A Multi-Phase Assessment of the Effects of COVID-19 on Food Systems and Rural Livelihoods in Nigeria*. APRA COVID-19 Country Report, Brighton: Future Agricultures Consortium

© APRA 2021

ISBN: 978-1-78118-882-8

DOI: 10.19088/APRA.2021.042



This is an Open Access report distributed under the terms of the Creative Commons Attribution Non Commercial No Derivatives 4.0 International licence (CC BY-NC-ND), which permits use and distribution in any medium, provided the original authors and source are credited, the work is not used for commercial purposes, and no modifications or adaptations are made.  
<https://creativecommons.org/licenses/by-nc-nd/4.0/legalcode>

If you use the work, we ask that you reference the APRA website ([www.future-agricultures.org/apra/](http://www.future-agricultures.org/apra/)) and send a copy of the work or a link to its use online to the following address for our archive: APRA, Future Agricultures Consortium, University of Sussex, Brighton BN1 9RE, UK ([apra@ids.ac.uk](mailto:apra@ids.ac.uk))

Agricultural Policy Research in Africa (APRA) is a programme of the Future Agricultures Consortium (FAC) which is generating new evidence and policy-relevant insights on more inclusive pathways to agricultural commercialisation in Sub-Saharan Africa. APRA is funded with UK aid from the UK Foreign, Commonwealth & Development Office (FCDO) and will run from 2016-2022.

The APRA Directorate is based at the Institute of Development Studies (IDS), UK ([www.ids.ac.uk](http://www.ids.ac.uk)), with regional hubs at the Centre for African Bio-Entrepreneurship (CABE), Kenya, the Institute for Poverty, Land and Agrarian Studies (PLAAS), South Africa, and the University of Ghana, Legon. It builds on more than a decade of research and policy engagement work by the Future Agricultures Consortium ([www.future-agricultures.org](http://www.future-agricultures.org)) and involves more than 100 researchers and communications professionals in Africa, UK, Sweden and USA

Funded by the UK Foreign, Commonwealth & Development Office



Foreign, Commonwealth  
& Development Office



This report is funded with UK aid from the UK government (Foreign, Commonwealth & Development Office – FCDO, formerly DFID). The opinions are the authors and do not necessarily reflect the views or policies of IDS or the UK government