



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

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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.

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Key findings

- The impact of the COVID-19 crisis on food systems and rural livelihoods in Ghana have been generally disruptive, exacerbating existing livelihood vulnerabilities.
- Our findings suggest that the shock of COVID-19 has resulted in an *income-nutrition-livelihood crisis* rather than a *food production crisis* in the study communities.
- There have been some positive gains reflected in households' diversification into a range of off-farm livelihood activities and shifting towards more local production and shorter value chains.
- COVID-19 awareness and reported levels of adherence to safety protocols remain high in the study areas.
- Reduction in movements due to the threat of COVID-19 has waned over the three rounds of the study.
- Compared to June–July 2020, farmers' participation in farm and off-farm economic activities had generally improved by October 2020 and February–March 2021.
- Farmers' access to output markets improved in October 2020 and February–March 2021 from the June–July 2020 situation; yet access to farm inputs remained constrained by increasing input prices and severe financial difficulties resulting from the COVID-19 crisis.
- There is evidence of trade diversion from cross-border trade to regional and national markets due to the closure of Ghana's land borders.
- Availability of food items improved in October 2020 and February 2021, but price spikes persisted for some food items.
- Households generally reported spikes in the cost of living, suggesting declining living standards in the study areas.
- Food insecurity concerns persisted among households across the three rounds of the study.
- COVID-19 alleviation support from various sources, including government and local sources of assistance, remained low among households in the study area.
- Overall, there has been negative impacts of the COVID-19 crisis in the form of a reduction in respondents' perceived control over their own lives.
- These negative impacts notwithstanding, there has been some positive gains in terms of relevant innovations, which could build greater resilience and adaptations in the face of a similar future global health crisis.
- These findings have relevant implications for the government's poverty reduction strategy, especially in the design and implementation of COVID-19 related livelihood support programmes to safeguard the sustenance of poor and vulnerable households.

1. Introduction

The COVID-19 crisis has disrupted food systems in Ghana since its emergence in the country in March 2020. According to the United Nations World Food Programme (WFP, 2020a), the socio-economic impact of the pandemic caused by the imposition of restrictions on social and commercial activities appears to be more devastating than the actual virus in many countries. This study is part of the Agricultural Policy Research in Africa (APRA) Programme's assessment of the impact of the COVID-19 crisis on food systems and livelihoods in Ghana and seven other African countries – Ethiopia, Kenya, Malawi, Nigeria, Tanzania, Zambia and Zimbabwe. Conducted between June–July 2020 and February–March 2021, the study seeks to estimate the potential impact of COVID-19 on food systems and livelihoods in south-western Ghana.

In Ghana, initial COVID-19 mitigation measures by the government included a partial lockdown in Accra and Kumasi (the two largest cities in Ghana); restrictions on movement and public gatherings; closure of borders (air and land); wearing of face masks; regular washing of hands with soap under running water; aggressive contact tracing of infected persons, closure of cinemas, restaurants, and schools; and restrictions on the number of people selling in markets and boarding public transport. Most of these measures have now been eased. Essentially, the Government of Ghana set out five key objectives to combat the pandemic: (1) limit and stop the importation of the virus; (2) contain its spread; (3) provide adequate care for the sick; (4) limit the impact on social and economic life; and (5) inspire the expansion of its domestic capability and deepen self-reliance. The combination of the lockdown measures, closed borders and broader global economic disruptions have imposed negative consequences on wellbeing, reflected in loss of household income due to reduced economic activity, higher prices for basic goods and reduced access to social services (WFP, 2020a). In June 2021, measures such as restrictions on the number of people at funerals, weddings, workshops and conferences, and sports stadia; closure of the country's land borders; wearing of face masks; and washing of hands under running water remained in force.

As of mid-April 2020, Ghana reported 636 confirmed cases of COVID-19 and eight deaths. This spiralled to 24,988 confirmed cases and 139 deaths by mid-July 2020, making Ghana the second most impacted country in the West and Central African region after Nigeria, and ranking fourth in the number of cumulative cases in the World Health Organization (WHO) Africa

region, following South Africa, Egypt and Nigeria. Notably, the partial lockdown in Accra and Kumasi on 30 March 2020 was lifted on 20 April 2020, making Ghana the first country to lift a lockdown at a time other countries such as Zimbabwe and Nigeria were extending theirs. By the end of December 2020, Ghana had recorded 54,771 cases, and continued to have the second-highest number of coronavirus cases in the West and Central Africa region, and the 10th highest number of confirmed cases on the African continent. Indeed, Ghana held its presidential and parliamentary elections in December 2020, following a period of intense political campaigns, which saw large crowds violating social distancing measures and the wearing of face masks. Subsequently, the country experienced a sharp increase in the number of confirmed COVID-19 cases in January 2021. As of the end of January 2021, the number of confirmed cases since the outbreak rose to 67,010 (an increase of 12,239 in the course of the month), and 84 COVID-19 related deaths were reported in January, bringing the total number of deaths to 416. The academic year for students in pre-tertiary institutions also commenced in January 2021.

In February 2021, the rise in the daily confirmed COVID-19 cases continues. As of 28 February 2021, the total number of confirmed cases stood at 83,212, with 607 reported deaths. In the West and Central Africa region, Ghana ranked the second highest in the number of Coronavirus cases reported. Indeed, Ghana became the first country in the world to receive the COVID-19 vaccine through the COVAX Facility, with support from WHO, Gavi, the Coalition for Epidemic Preparedness Innovations (CEPI), the United Nations Children Fund (UNICEF), and partners, on 24 February 2021, having received 600,000 doses of the AstraZeneca vaccine. The COVID-19 vaccination campaign subsequently began on 1 March 2021. As of 31 May 2021, the total number of COVID-19 cases stood at a little over 94,000, with the total death toll of 785. The Greater Accra and Ashanti regions continued to record the highest number of cases. Ghana retained its position as the country in the West and Central Africa Region with the second-highest number of COVID-19 cases, behind Nigeria. On 7 May, Ghana received an additional 350,000 AstraZeneca COVID-19 vaccines from the Democratic Republic of Congo, through the COVAX Facility, bringing the total number of vaccines to 950,000. As of 26 May, over 95% of those vaccines had been administered to beneficiaries.

Following a mixed methods approach, our study looked at the socio-economic impacts of the COVID-19 crisis on households in south-western Ghana. Generally, the easing of COVID-19 mitigating

measures, coupled with relatively low rates of daily infections, enabled some households to bounce back from or adapt to the socioeconomic disruptions of the COVID-19 crisis. Indeed, some households diverted their marketing activities into more local value chains as well as diversifying their off-farm business enterprises. Business and farming activities undertaken by households prior to the pandemic had almost fully returned. The socio-economic disruptions resulting from the imposition of COVID-19 mitigation restrictions were felt by households in the study areas more than the pandemic itself. Though the impact of these disruptions on food production has been minimal, the consequences appear significant for household income, nutrition and livelihoods as a result of declines in economic activity, which in turn led to income losses and reductions in household purchasing power, and a myriad of food system shocks. Though most farmers were able to continue their farming activities, substantial declines in employment and income were reported. Further, trading activities were severely hit by the reduction in the number of traders or buyers visiting the farming communities to purchase farm produce. This was exacerbated by increased transport fares which further constrained the movement of goods to local and regional markets. Additionally, there were hikes in the prices of some staple foods and other household goods, resulting in increased costs of living with dire implications for households' food and nutrition security, as well as overall household wellbeing.

Notwithstanding the negative impacts of the pandemic on rural food systems and livelihoods, there have been some relevant innovations that could build greater resilience and help households adapt in the face of similar future global or local health crisis. This is evidenced by the spark in local innovations such as the production of face masks, alcohol-based hand sanitisers, and makeshift hand washing buckets. Additionally, this will potentially enhance hygienic practices such as regular washing of hands with soap under running water, and the wearing of face masks which could potentially

reduce the socio-economic burden of other airborne and hygiene-related diseases.

The rest of the paper is structured as follows. In the next section, we provide a description of the data used for the analysis, followed by a discussion of the COVID-19 situation in the study area. Next, we analyse the impact of the COVID-19 crisis on farming and labour before discussing its impact on food and nutrition in Section 5. We provide evidence of how COVID-19 is affecting Ghana's poverty situation in Section 6, and Section 7 concludes.

2. Data

Data for this assessment is from three waves of telephone surveys and interviews involving a sub-sample of respondents that were previously recruited in 2017 and 2020 for APRA's panel studies on agricultural commercialisation and livelihood outcomes in south-western Ghana. The earlier APRA panel studies used a mixed-methods design involving household surveys and qualitative interviews (mainly focus group discussions and key informant interviews). A rigorous approach was used to select a representative sample in the study communities. For this study, which uses a multi-stage sampling procedure, five APRA panel study communities (Adum-Dominase, Ahountemo, Akatanchie, Hotopo and Manso) were purposively selected. These communities, spread across Ahanta West and Mphor districts in Ghana's Western Region, were selected based on the presence of oil palm processing activities, reliable mobile network connectivity and the presence of female-headed households. Second, stratification of households in each community was done based on the existing proportion of male and female-headed households. Next, 20 households were randomly selected from a frame of an existing list of respondents in the APRA panel studies. About 5-10 replacement households were also randomly drawn to minimise the risk of attrition. Overall, 110 households were interviewed in Round one (R1,

Table 1: Basic characteristics of respondents

Communities	R1			R2			R3		
	N	Age	% female headed	N	Age	% female headed	N	Age	% female headed
Adum-Dominase	22	49	9.1	21	49.6	4.8	21	49.8	4.8
Ahountemo	20	47.1	25	21	46	23.8	20	48.6	25
Akatanchie	22	52	27.3	22	53	27.3	22	53.5	27.3
Hotopo	23	56.7	30.4	22	56.7	31.8	21	56.8	28.6
Manso	23	60.2	13	21	59.3	9.5	19	59.7	5.3
Total	110	53.2	20.9	107	53	19.6	103	53.6	18.5

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

June–July 2020), 107 in Round two (R2, October 2020), and 103 households in Round three (R3, February–March 2021). Additionally, five key informant interviews were conducted (one in each study community) for each wave. These key informants are knowledgeable local community officials and representatives who could provide a deeper understanding of the prevailing socio-economic situations in the study communities.

Table 1 reports the number of interviewed households and the main characteristics of the respondents in the various rounds of the survey. In almost all cases, the head of the household was interviewed. In R1, 21% of respondents were females, but this declined to a little less than 20% in R1, and then about 18% in R3.

3. COVID-19

Respondents demonstrated a good knowledge of COVID-19 and its symptoms over the three rounds of the study. Respondents were asked about COVID-19 symptoms in their own households, as well as confirmed cases of COVID-19 in their own village or other villages. Over the three waves of the study, a declining proportion of respondents had someone in their household or village with symptoms of COVID-19. However, there was a substantial increase in the share of respondents who had heard of a confirmed cases of

COVID-19 in other villages between R1 and R3 (from 15.9% in R1 to 55.5% in R2), before sharply declining by R3 (**Table 2**). Additionally, there was a decline in the share of respondents reporting the presence of members with symptoms in their village over the three rounds of the survey.

It was widely reported in Ghana that many people were reluctant to use health facilities for fear of contracting COVID-19. Respondents were asked about their utilisation of healthcare facilities, and this improved over the three rounds. In R1 and R2, more than 80% of respondents reported being able to use their village health clinic or another one elsewhere, while over 90% reported same in R3 (**Figure 1**).

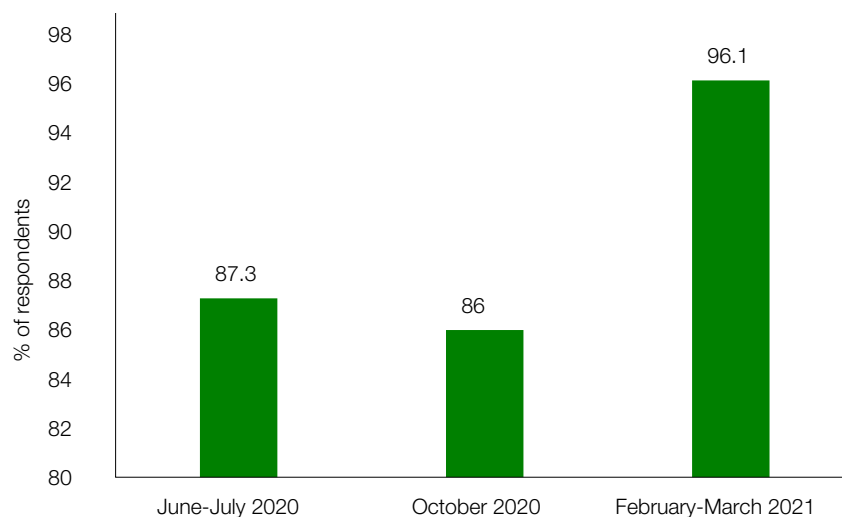
Given the COVID-19 restrictions imposed nationally, the share of respondents reducing their movements within and outside their villages sharply declined between R1 and R2 before slightly increasing by R3 from the R2 figures (**Figure 2**). The high movement restrictions reported in R1 may be due to a panic response of respondents to the partial lockdowns imposed in Accra and Kumasi. With most COVID-19 restrictions being eased, especially following the nation-wide voter registration exercise and intense political activities, there was a remarkable improvement in movement by R2. A resurgence in daily COVID-19 cases in January and

Table 2: The presence of symptoms of COVID-19 (% of respondents)

Round of survey	Have you or anyone in your household had COVID-19 symptoms?	Has anyone else in the village that you know had COVID-19 symptoms?	Have you heard of any confirmed cases of COVID-19 in other villages?
R1	10.3	8.4	15.9
R2	1.8	6.4	55.5
R3	3.0	0.0	9.0

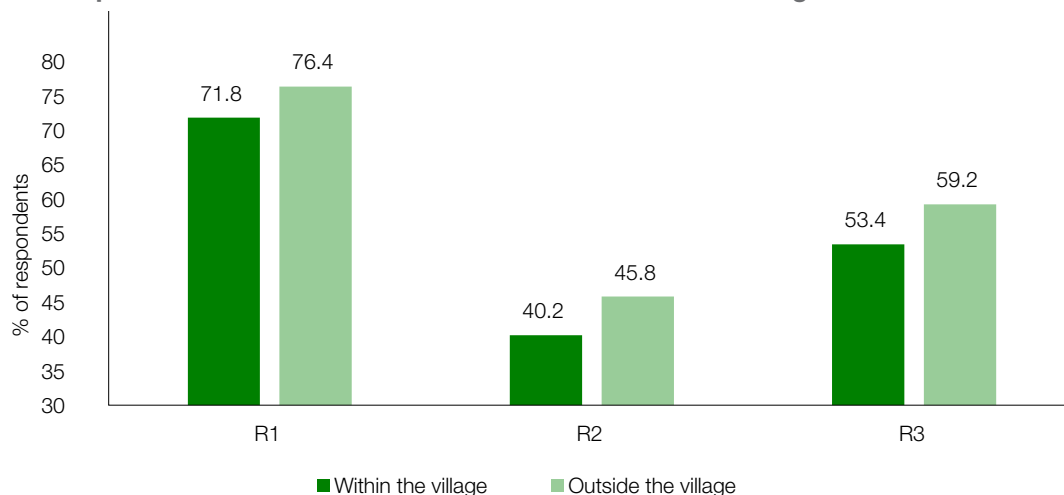
Source: Own calculations from APRA COVID-19 Rapid Assessment Surveys

Figure 1: Access to healthcare



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

Figure 2: Reported reduction in movements within and outside village



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

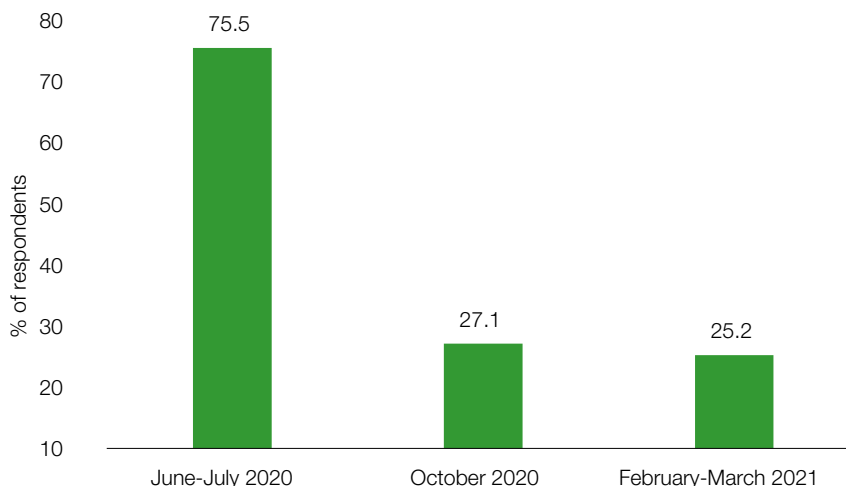
early February 2021 may have accounted for the slight rise in the share of respondents restricting movement within and outside their villages in R3 (**Figure 2**).

Compared with R1, fewer (but still a large proportion) respondents in R2 and R3 reported decreases in the number of buyers or traders coming to their villages to do business (Figure 3). This improvement may be linked to the nationwide easing of movements and other COVID-19 restrictions over the period. This finding is similar to the results obtained by the Ghana Statistical Service (GSS, 2021b), pointing to an improvement in the movement of traders following an initial decline in the movement of individuals between and within communities during the lockdown period, even in areas not directly under a lockdown.

Generally, the burden of care responsibilities in households increased in the study area following the emergence of the COVID-19 pandemic in the country. Except for the care for *other family or friends*, and *care for sick and elderly people*, the burden of care slightly declined for all other care categories between R1 and R2. Further, compared with the two previous rounds of the survey, the burden of care declined appreciably in R3. This observation may be explained by the easing of most COVID-19 related restrictions, especially the opening of schools, which reduced the burden of child-related care.

During the key informant interviews with community leaders, it was confirmed that the COVID-19 pandemic was fostering some local innovations in the form of local production of face masks, alcohol-based

Figure 3: Reported decrease in buyers or traders coming to the village



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

hand sanitisers, Veronica handwashing buckets and makeshift handwashing buckets¹ using local materials. These local innovations have the potential to reduce households' vulnerability to future global or local health crisis by enhancing their resilience and adaptation to similar crisis.

The COVID-19 pandemic was found to have had an adverse impact on the welfare of children. Following the closure of schools in March 2020, many parents had to cope with additional childcare responsibilities.

"Now people can sew their own masks, [and make] hand sanitisers and makeshift hand washing buckets using available local materials."

Lead farmer and community leader, Adum-Dominase

"It became difficult for people to be buying personal protective equipment (PPE) everyday so we have produced our own masks as well as Veronica handwashing buckets."

Farmer and community leader, Ahountemo

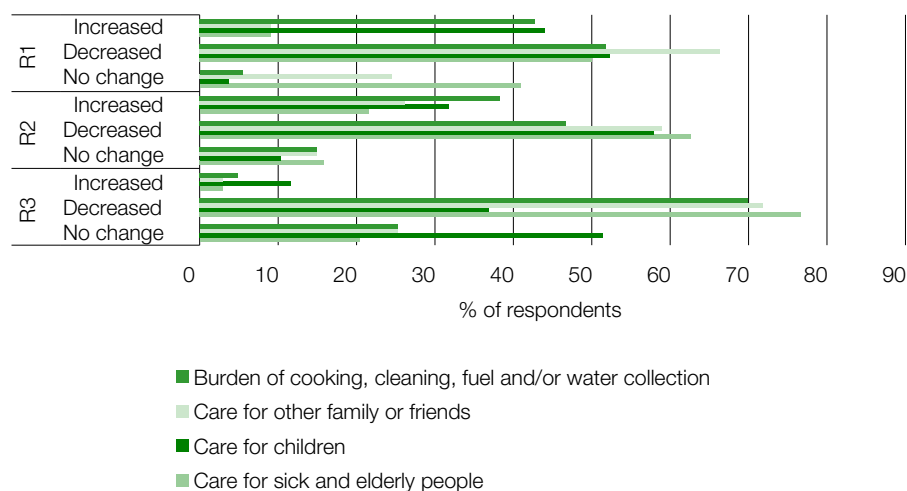
"The people in the community have become more conscious of their sanitation issues and hygiene and take care of their health needs such as eating the right meals. So they take care of themselves better now for fear of getting infected with any disease or COVID-19."

Farmer and assembly member, Hotopo

Increased responsibilities were also often shared with children, in the form of more housework, more farm work or in some cases, paid work away from home. It was found that most boys and girls were doing more housework, though the proportion of girls doing more housework was higher than the proportion reported for boys, across the first two waves of the study. Again, most school-age boys and girls were doing more farm work, and a higher proportion of girls were doing more farm work compared to boys. Additionally, less than 1% of girls were reported to be doing paid work away from home, while 7.3% and 1.9% were reported for boys in R1 and R2, respectively (**Table 3**). According to Karpati et al. (2021), the nationwide COVID-19 related school closures contributed to increased child work resulting from socio-economic pressures, and this potentially exposed children to violence, abuse and exploitation. More so, this was likely to exacerbate existing deprivations and inequalities between economically advantaged children and those from vulnerable homes. With schools opening in January 2021, however, the impact of the pandemic on school-age children significantly waned in the study area.

According to the Ghana Statistical Service (GSS, 2021b), a direct impact of the COVID-19 crisis on agribusinesses in Ghana included the laying-off of an estimated 78,412 workers, and wage reduction for 267,211 agribusiness workers during the post-lockdown period spanning May 2020 to January 2021. With likely further increases in the number of jobs lost during the COVID-19 pandemic, public and private social assistance measures would have been of primary importance to continue to support

Figure 4: Reported changes in daily responsibilities in the household



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

¹ A Veronica bucket is a mechanism for hand washing originating in Ghana which consists of a bucket of water with a tap fixed at the bottom, mounted at hand height, and a bowl at the bottom to collect wastewater. The Veronica bucket was developed by Veronica Bekoe.

Table 3: Children’s activities at home

Survey round	School work at home		More housework		More farm work		Paid work away from home		Nothing/sitting idle	
	Girls	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls	Boys
R1	60.0	53.6	70.0	55.5	50.9	45.5	0.9	7.3	16.4	13.6
R2	64.5	59.8	69.2	60.8	51.4	42.1	0.9	1.9	3.7	4.7
R3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

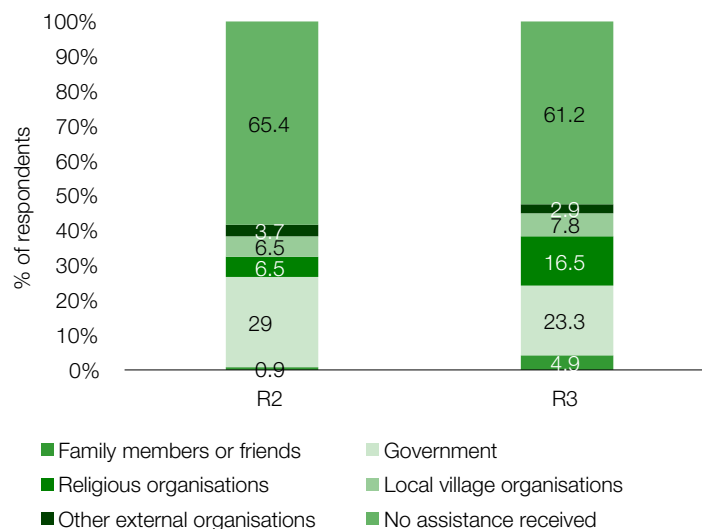
Source: Own calculations from APRA COVID-19 Rapid Assessment Surveys

households in absorbing the shock in the short-term. Respondents were therefore asked whether they were promised any type of assistance to ease the consequences of the pandemic. Compared to R2, a higher proportion of respondents in R3 received promises of assistance from *family members or friends*, *religious organisations*, and *local village organisations*, while a reduction was observed for

government and *other external organisations* over the same period (**Figure 5**).

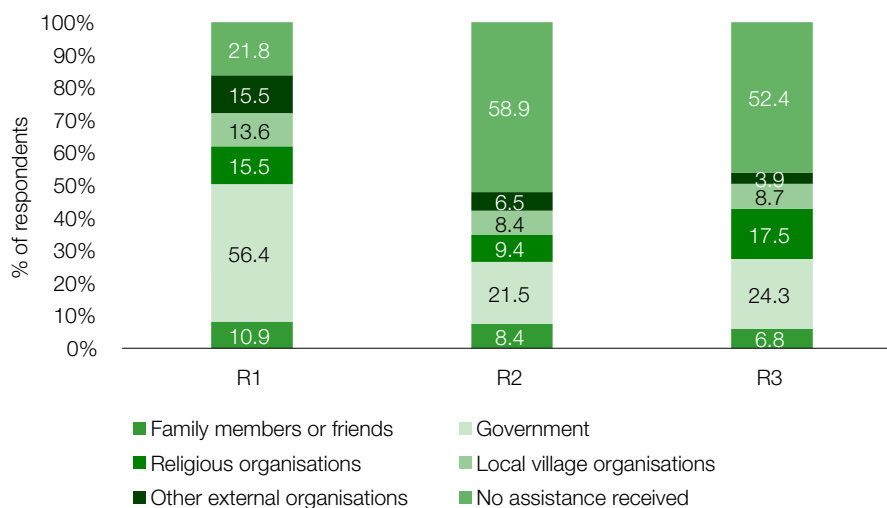
Respondents were also asked about the sources of assistance they had received since R1. Overall, assistance received by respondents from all sources declined between R1 and R2, and improved marginally for sources such as government, religious

Figure 5: Reported promised assistance, by source



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

Figure 6: Reported access to assistance, by source



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

“We have been in so much trouble due to the Coronavirus. Transport fares have gone up and we don’t have money. But there is no one to help us. No form of support was extended to the agricultural sector. We have received no support in terms of food or other humanitarian relief.”

Lead farmer and community leader, Adum-Dominase

“We did not receive any relief or food aid in the community. Only a few masks and hand sanitisers were given to some people. We went to NORPALM, an oil processing factory to seek support, but they could not help us, explaining that they were also severely affected by the COVID-19 pandemic.”

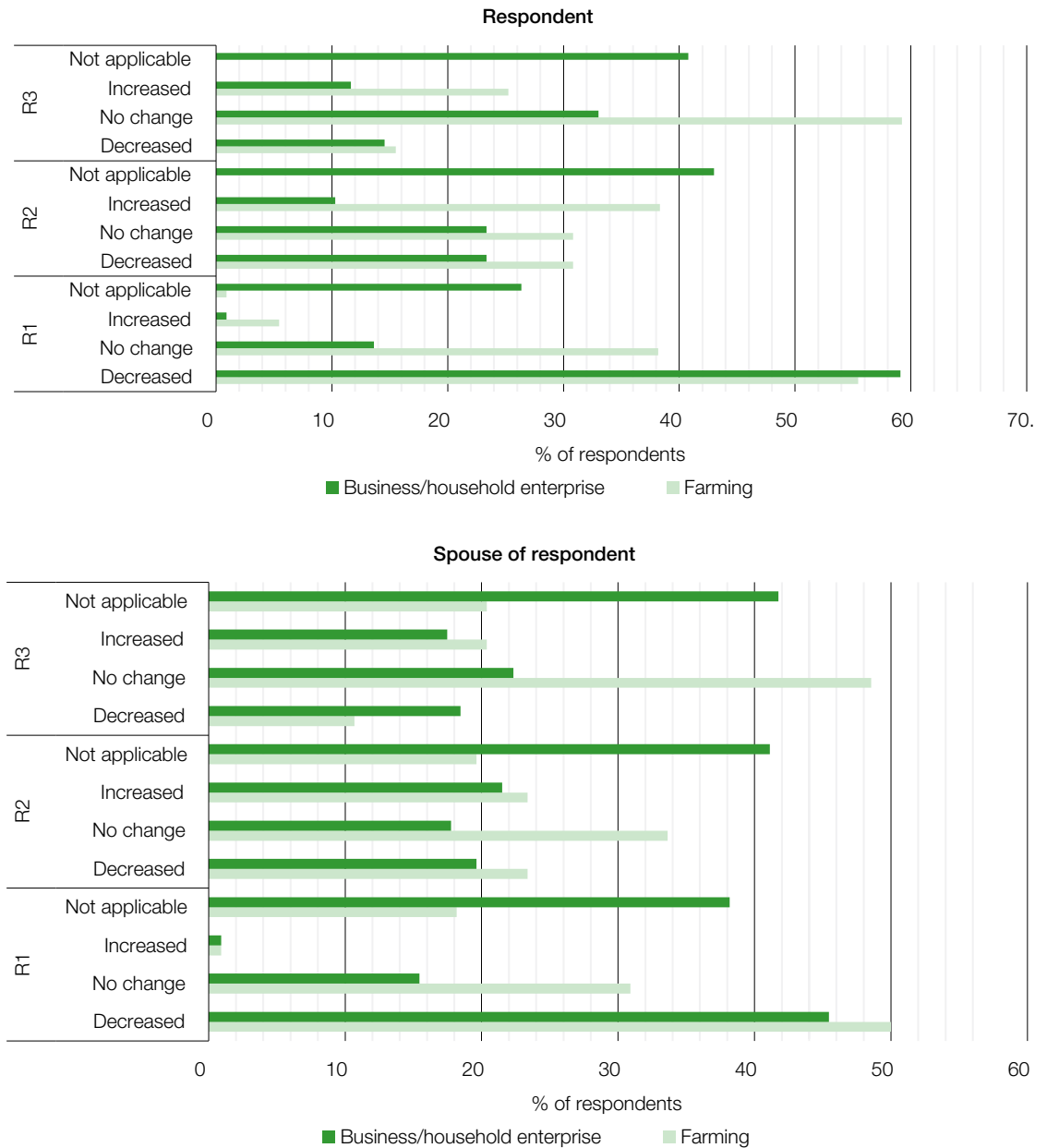
Cooperative leader and assembly member, Akatanchie

organisations, and local village organisations. Indeed, the share of respondents who received no assistance shot up from 21.8% in R1 to 58.9% in R2 before declining marginally to 52.4% in R3 (Figure 6).

4. Farming and labour

Respondents were asked about the impact of the COVID-19 crises on their participation in farming and

Figure 7: Participation in farming and business, respondent and spouse



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

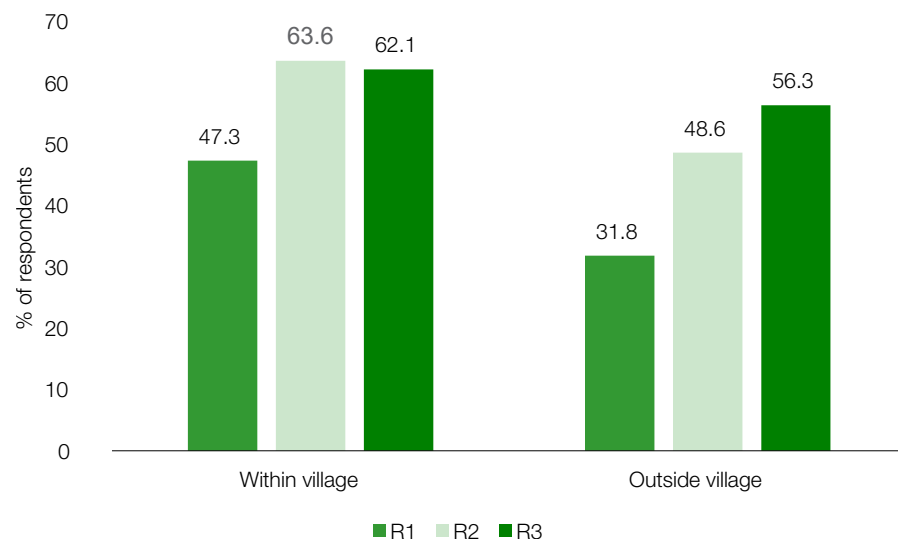
business activities. There was a significant decline in participation in farming and business activities in R1. The proportion of respondents reporting decreases in farming and business activities however declined in R2 and R3. Similar trends were observed for the participation of respondents and their spouses in farming and business activities.

In R1, the COVID-19 crisis was having a toll on respondents' access to off-farm work activities within and outside their villages, though the proportion was comparatively higher for access to off-farm work within the village. Later, access to work both within and outside the village improved for respondents in R2 and R3, though there was a slight decline in access to work within village between R2 and R3 (Figure 8). Further, COVID-19

presented a challenge for the availability of hired labour, both for continuing farming or business activities and in terms of increased cost of labour (Figure 9 and Figure 10). It was observed that though the share of respondents who were able to hire labour slightly declined between R1 and R2, there was a sharp increase from 41.1% to 61.2% in R3. While this may be partly due to seasonality, there are clear indications that the availability of labour was temporarily affected by COVID-19 in the study area. The share of respondents reporting an increased cost of hired labour also spiralled after R1.

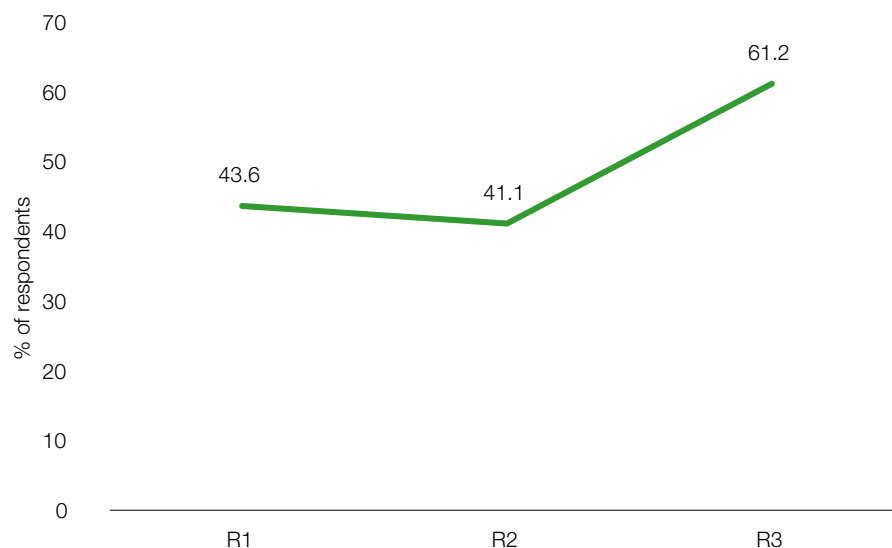
Respondents were asked about their ability to sell at the farm gate, in local markets, in district or regional markets, as well as in national markets and across the border over the three rounds of the survey. Generally, COVID-19

Figure 8: Reported access to off-farm work



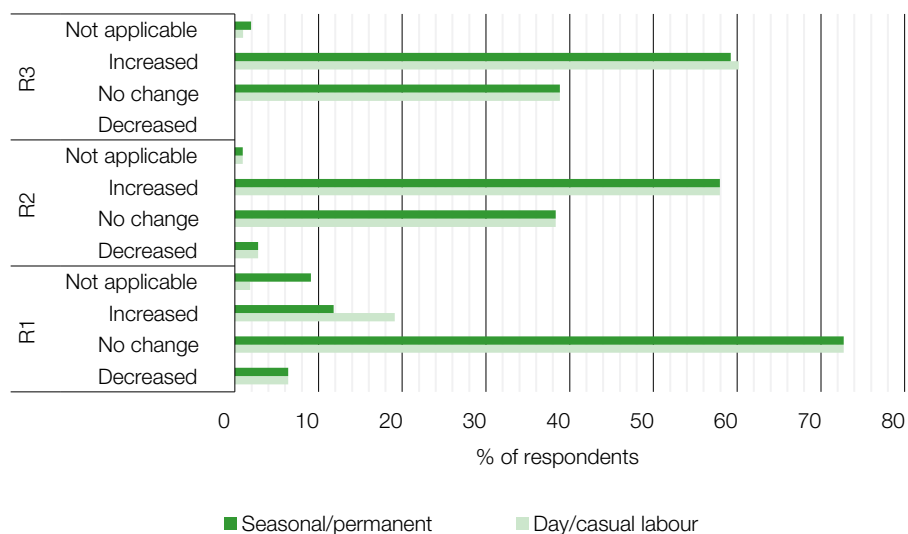
Source: Own calculations from APRA COVID-19 Rapid Assessment Surveys

Figure 9: Access to hired labour



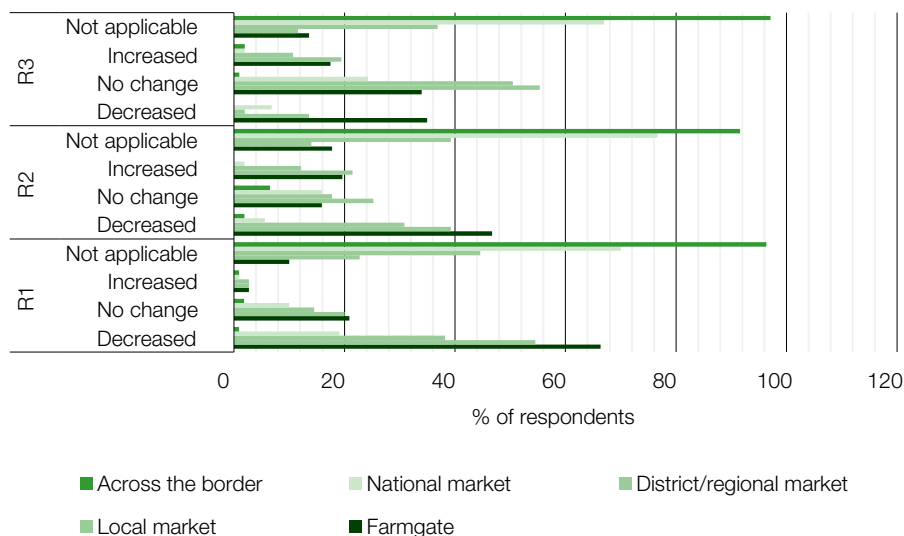
Source: Own calculations from APRA COVID-19 Rapid Assessment Surveys

Figure 10: Changes in cost of hired labour, by type



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

Figure 11: Changes in the ability to sell farm produce, by selling point



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

“Sale of farm produce has been severely affected. This is due to the unavailability of buyers to buy our produce. In fact, traders were afraid to come here because of the virus. Even when you take produce to the market, there were only few buyers.”

Lead farmer and community leader, Adum-Dominase

“Because of the virus, there were poor sales. We grow a lot of oil palm and a lot of them are sold outside the community and others processed the oil palm into palm oil; but traders could not come to buy and this badly affected farmers. Because there were poor sales, some workers were laid off until business improves.”

Cooperative leader and assembly member, Akatanchie

“Some traders used to travel to Côte d’Ivoire to buy and sell, but due to the closure of the borders, some have diverted to travelling to Accra.”

Farmer and assembly member, Hotopo

created constraints for accessing markets for buying and selling products in R1, before slightly easing in R2 and R3 (**Figure 11**). Additionally, with the closure of the country's land borders, cross-border trade with Côte d'Ivoire in south-western Ghana was severely affected. In response, traders diverted their trading activities from cross-border trade to the regional market in Takoradi and the national market in Accra.

Movement restrictions initially affected both the availability and the cost of transportation. Respondents were therefore asked about their ability to hire transport, and the costs and possible consequences for buyers of coming to the village over three rounds of the study. Compared to R1, a higher proportion of respondents indicated increases in transport costs.

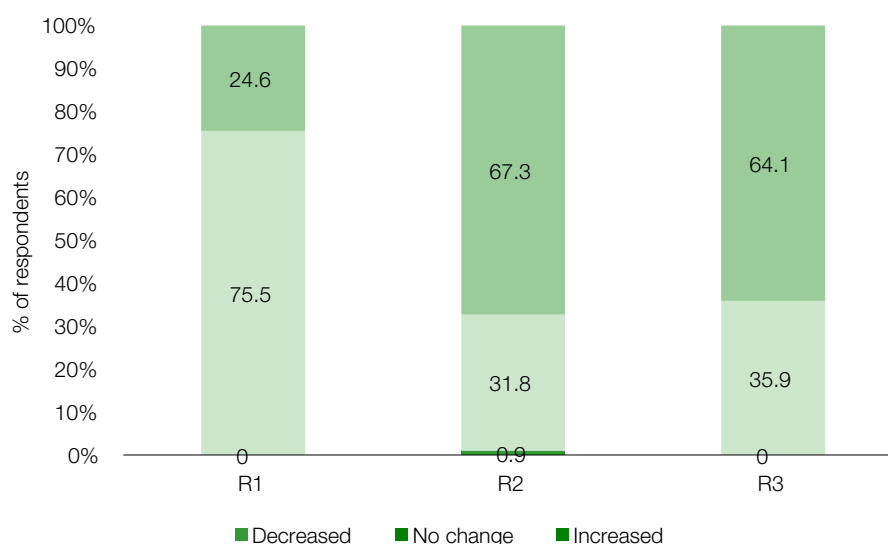
"Transactions are usually in cash; but some people use mobile money. For instance, the woman who buys my produce usually pays via mobile money. But barter is no more here."

Cooperative leader and assembly member, Akatanchie

"Most people transact business in cash. Some people also use mobile money to transact businesses. For barter trade, you might find one or two people who may be exchanging goods."

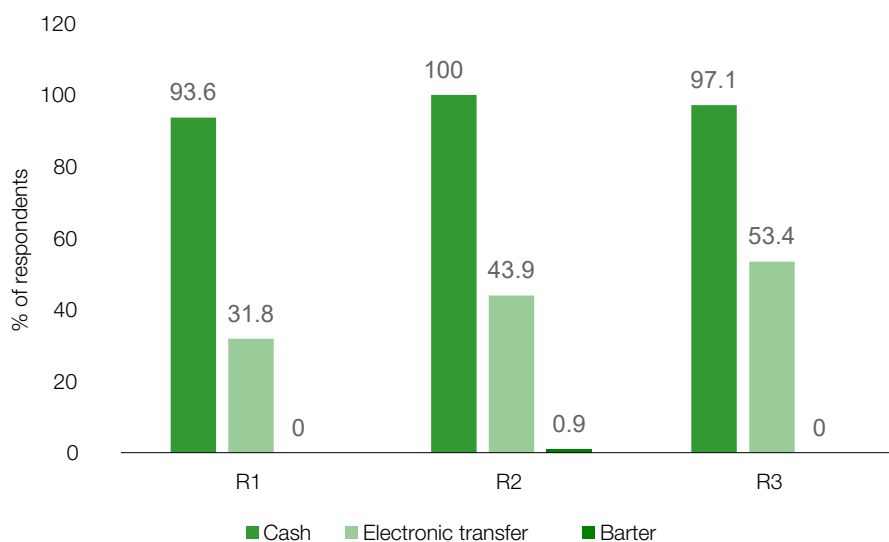
Farmer and assembly member, Hotopo

Figure 12: Changes in the cost of transportation



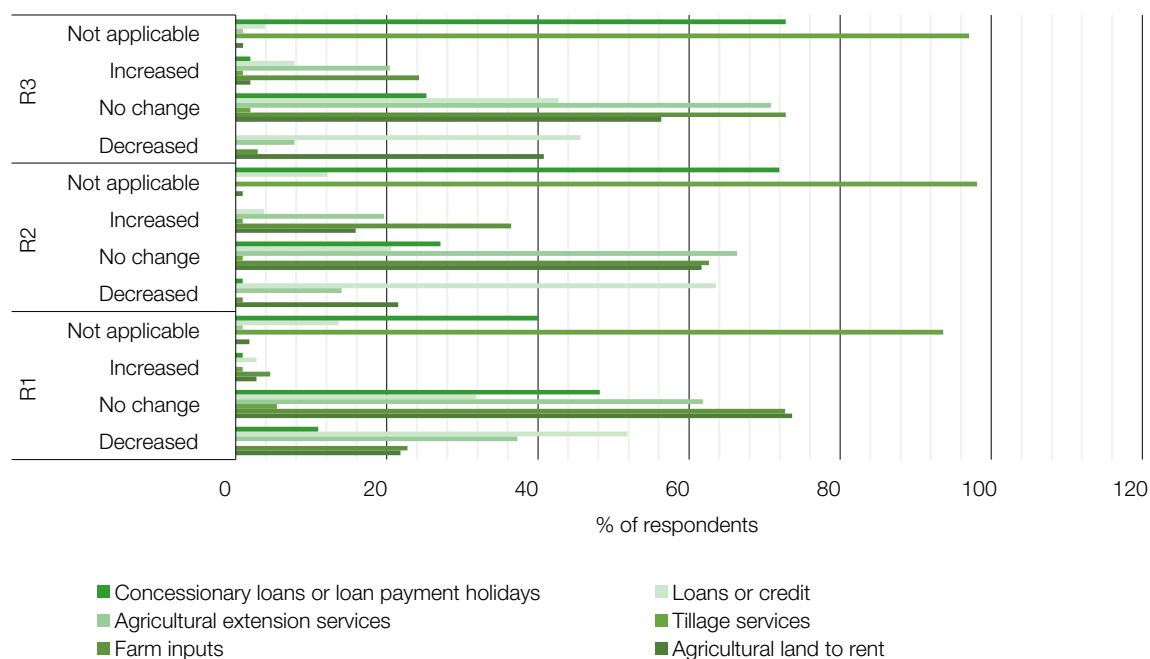
Source: Own calculations from APRA COVID-19 Rapid Assessment Surveys

Figure 13: Reported form of payment for transactions



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

Figure 14: Availability of services for agricultural production



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

“Our biggest concerns are lack of credit, fertilisers and other inputs for large-scale production. The inputs are available in the market shops but there is no money to buy them.”

Cooperative leader and assembly member, Akatanchie

“Our biggest concern is lack of funds to acquire labour, buy chemicals and mechanisation for our farming activities.”

Farmer and opinion leader, Manso

While the use of bartering as a means of payment was negligible, the increase in the use of electronic transfers was remarkable, shooting up from 31.8% in R1 to 53.4% in R3 (Figure 13). Though this increase may be in line with the general increase in the use of electronic transfer payments over the past few years, it is quite apparent that the movement restrictions and increase in online transactions and service deliveries were driving the use of electronic transfer payments. Despite this increase, however, respondents had not completely moved away from using cash as a means of payment for transactions.

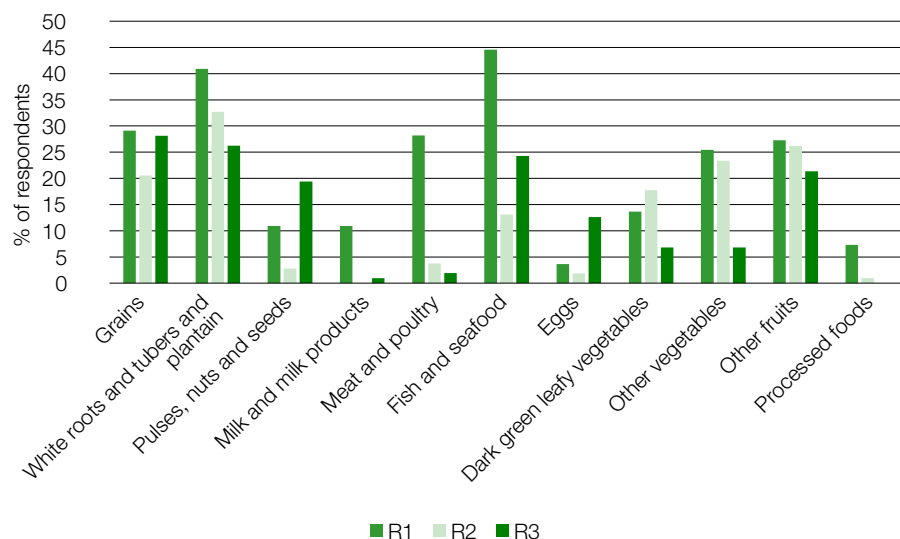
Additionally, respondents were asked if the COVID-19 pandemic had affected the availability and prices of services for agricultural production such as agricultural land to rent, farm inputs, tillage services,

agricultural extension services, loans or credit (Figure 14). Respondents generally reported declines in the availability of these agricultural services over the period, though the proportion of respondents reporting decreases in the availability of these services significantly waned over the three waves of the survey, except for concessionary loans or loan payment holidays.

5. Food and nutrition security

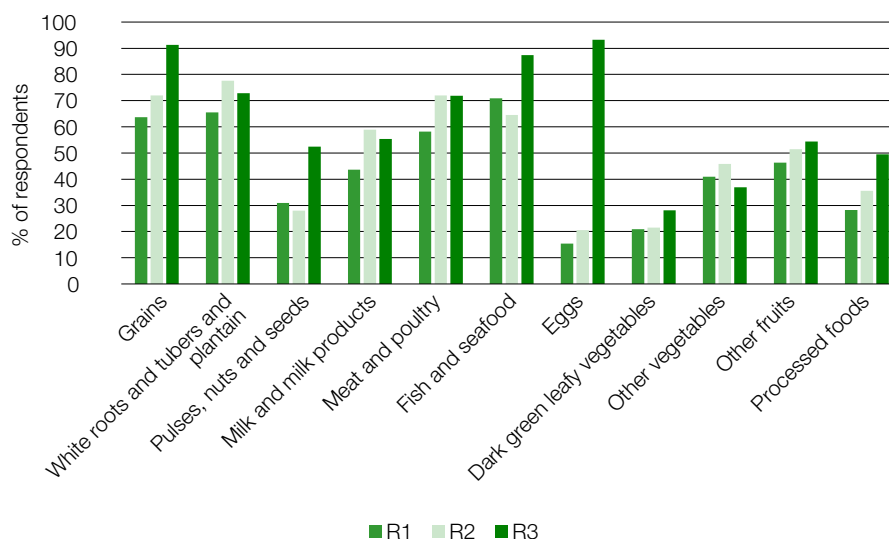
One of the key objectives of this study is to understand how the COVID-19 crisis is affecting household food and nutrition security. The respondents were therefore asked if the availability and prices of food items in their local markets had been affected by the pandemic. Respondents generally reported decreased availability of various food items, however, the share of respondents did decline after R1, except for grains, pulses, nuts and seeds, fish and seafoods, and eggs for which a higher proportion of respondents reported a decline in availability in R3 than in R2. According to WFP (2020a), the combination of lockdown measures, closed borders and broader global economic disruptions have been causing higher prices for basic goods and reduced access to social services globally. Indeed, the results from this study confirm spikes in the prices of most food items over the study period. Nationally, price increases were reported for major food items, with over 70% of households reporting that they had been severely affected by the price increases (GSS, 2021a).

Figure 15: Reported decrease in availability of food items in local markets



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

Figure 16: Reported increase in prices of food items



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

Table 4: Food Insecurity Experience Scale (FIES) (%)

	R1	R2	R3
Worried about not having enough food to eat because of a lack of money or other resources	55.5	52.3	59.2
Unable to eat healthy and nutritious food because of a lack of money or other resources	40.0	36.5	41.8
Ate only a few kinds of foods because of a lack of money or other resources	58.2	55.1	55.3
Had to skip a meal because there was not enough money or other resources to get food	48.2	45.8	28.2
Ate less than you thought you should because of a lack of money or other resources	52.7	49.5	50.5
Ran out of food because of a lack of money or other resources	24.6	22.4	17.5
Were hungry but did not eat because there was not enough money or other resources for food	24.6	14.0	17.5
Went without eating for a whole day because of a lack of money or other resources	0.9	3.7	0.0
Food Insecurity Experience Scale (FIES) min=0; max=8	3.0	2.8	2.7

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

“Most people complain about hardships as the Coronavirus has had a huge toll on their livelihood activities. Some men are drivers who used to drive across the borders. Now that these borders are closed, they are at home. Things are looking quite difficult for them.....many people have not been able to sell their produce and are therefore not able to buy adequate food and meet other needs.”

Farmer and assembly member, Hotopo

“Many people have invested heavily in their agricultural production and since they are unable to get buyers for their products, they will not have money to buy food and meet other pressing needs.”

Cooperative leader and assembly member, Akatanchie

“One of the foods that has seen a price increase is cassava. For instance, what we used to buy for 2 Ghana Cedis is now sold at 4 Ghana Cedis.”

Lead farmer and community leader, Adum-Dominase

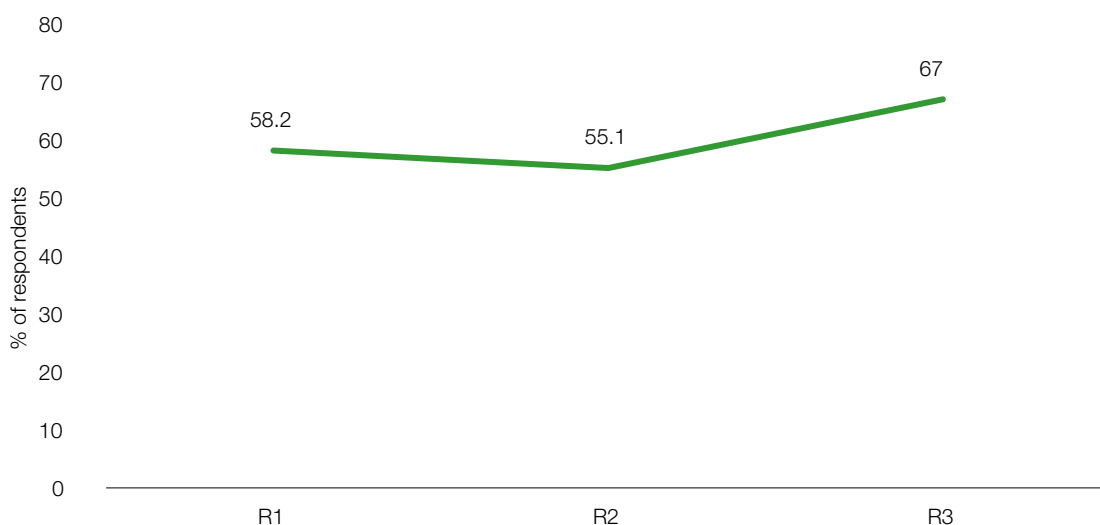
The respondents were asked about their access to food based on a list of eight questions drawn from the Food and Agriculture Organization of the United Nations’ (FAO) Food Insecurity Experience Scale (FIES) (FAO, no date) and the percentage of households responding

positively to each.² Evidence of food insecurity was found in the study area between R1 and R3. Though a very low proportion of respondents reported severe food insecurity, confirming that they “went without eating for a whole day because of a lack of money or other resources”, the proportion experiencing severe food insecurity did increase between R1 and R2. Remarkably, no respondent reported having experienced severe food insecurity in R3 (**Table 4**). To understand how the overall food insecurity situation varied, the list of eight FIES questions were used to create a food insecurity indicator on a scale of 0 to 8, with households scoring 0 being most food secure and those scoring 8 being the most food insecure. Generally, food insecurity concerns persisted, though the average food insecurity status was not severe.

6. Poverty

The cost of living rose in line with rising food and non-food prices nationally, and the study area was no exception. The majority of respondents reported a rising cost of living, though the proportion declined slightly between R1 and R2, with a comparatively higher proportion of respondents reported an increased cost of living in R3. Obviously, rising cost of living has the tendency to further exacerbate conditions for the poor, and might push some previously non-poor households into poverty. Nationally, Amewu et al. (2020) estimated that Ghana’s national poverty headcount rate increased by 12.5% during the lockdown period, translating into additional 3.8 million people falling into poverty during the lockdown.

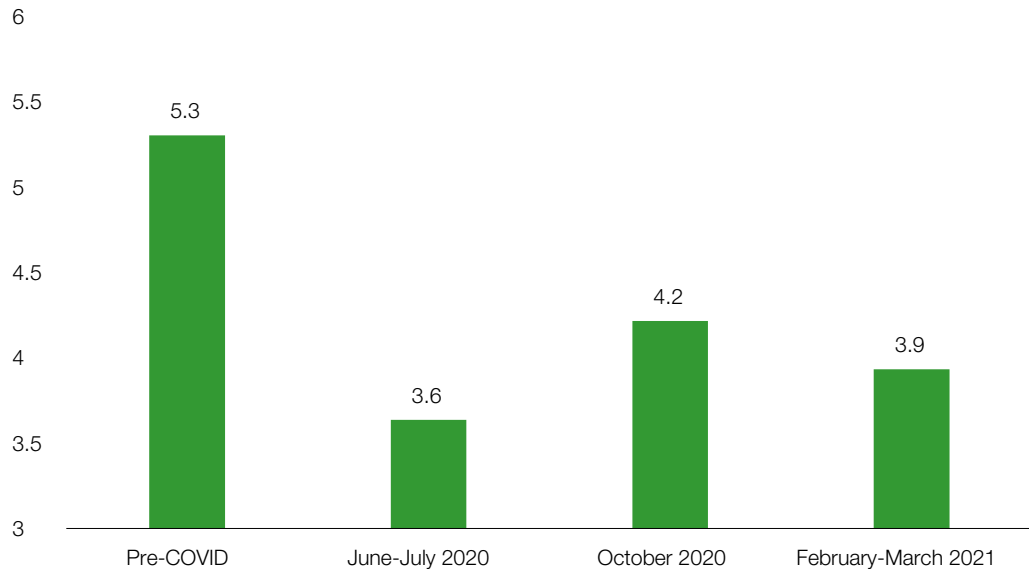
Figure 16: Reported increase in prices of food items



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

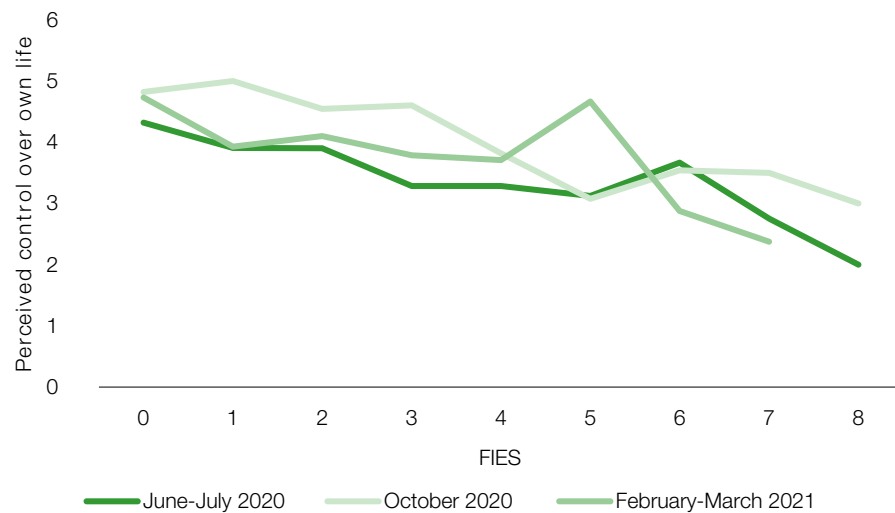
²The degree of food insecurity implied by a question increases as one moves down the list of questions. This explains why the percent of households responding positively to a question decreases as one moves down the list.

Figure 17: Mean perceived control over own life



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

Figure 18: Household perceived control over life and FIES



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

“People couldn’t sell their farm produce so they incurred losses. This made them poorer. The Coronavirus has brought severe livelihood challenges. Many people are poorer now as a result.”

Farmer and community leader, Ahountemo

“When the traders were travelling to Côte d’Ivoire, prices were better, and sales were good; but the borders were closed so things are bad for people now.”

Farmer and assembly member, Hotopo

“I am unable to fully pay for the tuition fees of my children and buy stationery. I am very sure other farmers are facing similar situations. I am very worried about that.”

Lead farmer and community leader, Adum-Dominase

Using the nine-step ladder developed by Ravallion (2012), respondents were asked if the COVID-19 pandemic had any impact on their perception about the control they felt they had over their own lives. The results show that compared to the pre-COVID era, respondents were reporting lower perceptions of control over their own lives. The mean score improved slightly between R1 and R2 before declining slightly in R3, but this was still higher than the mean score reported in R1 (**Figure 17**). The expectation is that as national and local COVID-19 restrictions are increasingly eased, individuals will subsequently perceive having more control over their own lives.

Finally, to understand changes in the relationship between overall food security status and perceptions of control respondents felt over their own lives, the association between people's perceived position on the ladder scale (1-9) against households' FIES score was estimated. Over the three waves of the study, the study revealed a strong negative association between an individual's perception of control over their own lives and their household FIES score (**Figure 18**). Essentially, respondents with higher FIES scores (higher food insecurity) are associated with lower perceived control over their own lives.

7. Conclusions

APRA initiated a rapid assessment study to understand the effect of the COVID-19 pandemic on food systems and livelihoods in Ghana and seven other Africa countries – Ethiopia, Kenya, Malawi, Nigeria, Tanzania, Zambia and Zimbabwe. In Ghana, three rounds of surveys and key informant interviews were conducted in five communities spread across the Ahanta West and Mpohor districts of the Western Region from June-July 2020 to February-March 2021.

While the COVID-19 pandemic persists, with future implications for rural food systems and livelihoods, the findings of this study indicate that the global crisis continues to have adverse impacts on rural household livelihoods and food systems. Households are showing remarkable resilience in the presence of very little or, in most cases, no external assistance. Some households are coping with the crisis by engaging in non-farm business activities, reducing food and non-food consumption, and relying on savings. Nonetheless, a greater share of households in the study experienced significant hardship in the form of restrictions on movements, to greater childcare and housework responsibilities (particularly for women and girls) and greater farm work (for boys), reduced participation in farming and business activities, as well as a decline in the availability of transport. Additionally, respondents

reported a reduction in perceived control over their own lives, reduced food availability and consumption, and a generally rising costs of living, culminating in food and nutrition insecurity concerns in the study area.

Though the Government of Ghana announced a US\$1 billion bailout package to help cushion the recovery of businesses from the impact of COVID-19, smallholder farmers in Ghana find themselves ineligible. The government may need to consider a bailout package for vulnerable smallholder farmers whose precarious pre-COVID living conditions have been exacerbated by the pandemic. This special support may not only protect rural farm livelihoods but could ensure stable and safe food supply across local and national markets. Additionally, there is the need for increased social protection and access to basic services from the state, including food programmes to mitigate emerging food insecurity concerns for the most vulnerable households in the society. To help design and target these measures, it is important to further track these households and communities as the COVID-19 crisis unfolds to further assess the dynamic effects of the crisis, and to analyse how individuals, governments and food systems are responding in Ghana.

Finally, it is worth mentioning that despite the negative impacts of COVID-19 on livelihoods and food systems in the study area, there has been some positive impact in terms of relevant innovations, which could build greater resilience and increase adaptation in the face of similar future global health crisis. There would be the need for government to expand its COVID-19 alleviation support to include smallholder farmers whose livelihoods appear severely threatened. This support would cushion poor farmers from falling deeper into poverty and strengthen their resilience.

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Appendices

Table A1: Basic characteristics of study communities

Communities	R1			R2			R3		
	N	Age	% female headed	N	Age	% female headed	N	Age	% female headed
Adum-Dominase	22	49.0	9.1	21	49.6	4.8	21	49.8	4.8
Ahountemo	20	47.1	25.0	21	46.0	23.8	20	48.6	25.0
Akatanchie	22	52.0	27.3	22	53.0	27.3	22	53.5	27.3
Hotopo	23	56.7	30.4	22	56.7	31.8	21	56.8	28.6
Manso	23	60.2	13.0	21	59.3	9.5	19	59.7	5.3
Total	110	53.2	20.9	107	53.0	19.6	103	53.6	18.5

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

Table A2: Timeline of COVID-19 interventions and major events in Ghana

Date	Intervention/event
March 12, 2020	First two cases of COVID-19 confirmed in Ghana.
March 16, 2020	Initial restrictions – school closures and bans on public gatherings – introduced nationwide.
March 27, 2020	President announces that lockdown measures will be introduced in parts of the Greater Accra Metropolitan Area and the Greater Kumasi Metropolitan Area on March 30, 2020.
March 30, 2020	Lockdown measures are imposed in parts of the Greater Accra Metropolitan Area and the Greater Kumasi Metropolitan Area.
April 19, 2020	President announces that lockdown measures will be lifted the following day, although nationwide school closures and bans on public gatherings will continue.
April 20, 2020	Lockdown measures lifted, nationwide school closures and bans on public gatherings still in place.
June 30, 2020	Ghana's Electoral Commission started a nationwide registration of voters (which ended on August 6, 2020) in preparations for general elections in December 2020.
December 7, 2020	General elections held in Ghana.
January 17, 2021	Presidential address about Ghana experiencing a second wave of COVID-19.
January 18, 2021	In-person teaching resumed in schools and universities.
February 24, 2021	Ghana receives 600,000 doses of the AstraZeneca COVID-19 vaccine through the COVAX Facility.
March 1, 2021	COVID-19 vaccination campaign begins in Ghana.
May 7, 2021	Ghana receives an additional 350,000 AstraZeneca COVID-19 vaccines from the Democratic Republic of Congo, through the COVAX Facility.

Source: Adapted from GSS (2021)

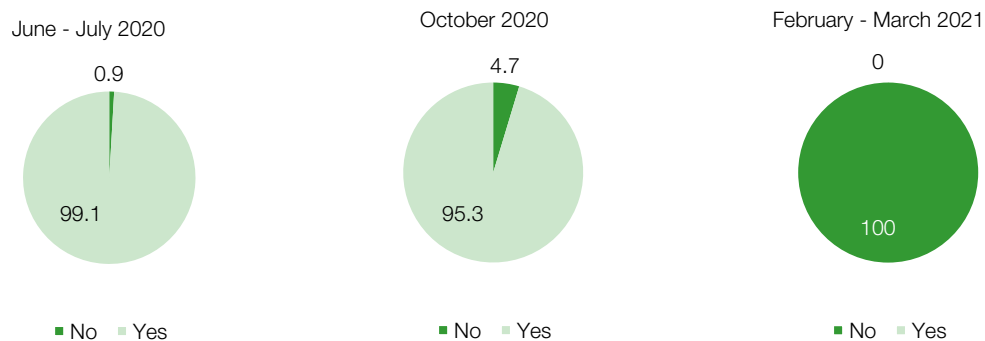
Table A3: Reduction of movements in study areas – across countries (%)

Survey round	As a result of COVID-19 have you reduced your movements within the village?	As a result of COVID-19 have you reduced your movements outside your village?	Have family members/relatives/friends who live outside of the village been prevented from visiting due to COVID-19 restrictions?	Since June–July 2020, how has the number of buyers or traders coming to the village to do business changed (compared to other similar times in other years)?		
				<	=	>
R1	71.8	76.4	44.6	75.5	23.6	0.9
R2	40.2	45.8	15.9	27.1	29.9	43.0
R3	53.4	59.2	10.7	25.2	58.3	16.5

Note: < Decreased; = No change; > Increased

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

Figure A1: Schools closed



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

Table A4: Reported change in selling habits, by sales modalities (%)

How has your ability to sell your produce changed as a result of COVID-19?																				
Survey round	At the farm gate (from your own farm)				In local markets				In district or regional markets				In national markets				Across the border			
	<	=	>	NA	<	=	>	NA	<	=	>	NA	<	=	>	NA	<	=	>	NA
R1	66.4	20.9	2.7	10.0	54.6	20.0	2.7	22.7	38.2	14.6	2.7	44.6	19.1	10.0	0.9	70.0	0.9	1.8	0.9	96.4
R2	46.7	15.9	19.6	17.8	39.3	25.2	21.5	14.0	30.8	17.8	12.2	39.3	5.6	15.9	1.9	76.6	1.9	6.5	0.0	91.6
R3	35.0	34.0	17.5	13.6	13.6	55.3	19.4	11.7	1.9	50.5	10.7	36.9	6.8	24.3	1.9	67.0	0.0	1.0	1.9	97.1

Note: < Decreased; = No change; > Increased.

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

Table A5: Prices of services for agricultural production and contractual agreements (%)

Since June-July 2020, how have prices changed?																	
Survey round	Agricultural land rental price				Farm input prices				Price for tillage services				Contractual arrangements for your main cash crop(s) (received support)				
	<	=	>	NA	<	=	>	NA	<	=	>	NA	<	=	>	NA	
R1	10.9	76.4	11.8	0.9	6.4	60.9	32.7	0.0	0.0	4.6	0.9	94.6	28.2	55.5	3.6	12.7	
R2	1.9	61.7	35.5	0.9	0.9	34.6	62.6	1.9	0.0	0.0	0.9	99.1	6.5	77.6	10.3	5.6	
R3	1.0	60.2	35.9	2.9	1.0	20.4	75.7	2.9	0.0	1.9	1.0	97.1	13.6	55.3	3.9	27.2	

Note: < Decreased; = No change; > Increased.

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

Table A6: Reported changes in transportation, across countries (%)

Survey round	Are you still able to hire transport to take your produce to the point of sale?			How has the cost of transportation of people and goods changed as an effect of COVID-19?			What effect has COVID-19 had on buyers or brokers coming to the area to purchase produce directly from you and other farmers?			
	No	Yes	NA	<	=	>	<	=	>	NA
R1	9.1	82.7	8.2	0.0	75.5	24.6	72.7	25.5	1.8	0.0
R2	18.7	79.4	1.9	0.9	31.8	67.3	48.6	30.8	20.6	0.0
R3	6.8	78.6	14.6	0.0	35.9	64.1	32.0	59.2	8.7	0.0

Note: < Decreased; = No change; > Increased.

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

Table A7: Availability and prices of food items

	R1				R2				R3			
	%	%	%	%	%	%	%	%	%	%	%	%
	<	=	>	NA	<	=	>	NA	<	=	>	NA
Availability												
Grains	29.1	58.2	12.7	0.0	20.6	43.9	35.5	0.0	28.2	56.3	15.5	0.0
White roots, tubers, plantains	40.9	44.6	14.6	0.0	32.7	43.0	24.3	0.0	26.2	53.4	20.4	0.0
Pulses, nuts, seeds	10.9	83.6	4.6	0.9	2.8	72.9	24.3	0.0	19.4	64.1	16.5	0.0
Milk, milk products	10.9	76.4	10.9	1.8	0.0	69.2	29.9	0.9	1.0	84.5	14.6	0.0
Meat and poultry	28.2	59.1	9.1	3.6	3.7	65.4	30.8	0.0	1.9	76.7	21.4	0.0
Fish and seafood	44.6	47.3	8.2	0.0	13.1	42.1	43.9	0.9	24.3	53.4	22.3	0.0
Eggs	3.6	93.6	2.7	0.0	1.9	78.5	19.6	0.0	12.6	70.9	16.5	0.0
Dark green leafy vegetables	13.6	78.2	7.3	0.9	17.8	56.1	26.2	0.0	6.8	68.9	24.3	0.0
Other vegetables	25.5	70.0	4.6	0.0	23.4	50.5	26.2	0.0	6.8	64.1	29.1	0.0
Other fruits	27.3	68.2	4.6	0.0	26.2	50.5	23.4	0.0	21.4	56.3	22.3	0.0
Processed foods	7.3	86.4	4.6	1.8	0.9	72.0	26.2	0.9	0.0	82.5	17.5	0.0
Prices												
Grains	0.0	34.6	63.6	1.8	2.8	24.3	72.0	0.9	0.0	7.8	91.3	1.0
White roots, tubers, plantains	1.8	30.0	65.5	2.7	2.8	19.6	77.6	0.0	1.9	24.3	72.8	1.0
Pulses, nuts, seeds	0.9	66.4	30.9	1.8	0.0	72.0	28.0	0.0	1.0	46.6	52.4	0.0
Milk, milk products	0.9	53.6	43.6	1.8	0.0	41.1	58.9	0.0	0.0	44.7	55.3	0.0
Meat and poultry	0.9	37.3	58.2	3.6	0.9	27.1	72.0	0.0	0.0	28.2	71.8	0.0
Fish and seafood	0.9	28.2	70.9	0.0	7.5	28.0	64.5	0.0	1.0	10.7	87.4	1.0
Eggs	1.8	82.7	15.5	0.0	0.9	78.5	20.6	0.0	0.0	4.9	93.2	1.9
Dark green leafy vegetables	4.6	73.6	20.9	0.9	7.5	71.0	21.5	0.0	7.8	64.1	28.2	0.0
Other vegetables	3.6	55.5	40.9	0.0	2.8	51.4	45.8	0.0	9.7	52.4	36.9	1.0
Other fruits	1.8	51.8	46.4	0.0	0.0	48.6	51.4	0.0	1.9	42.7	54.4	1.0
Processed foods	0.9	69.1	28.2	1.8	1.9	62.6	35.5	0.0	0.0	50.5	49.5	0.0

Note: < Decreased; = No change; > Increased

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

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& Development Office



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