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MARKET IMPACTS OF COVID-19 ON NORTHEAST NIGERIA

Rural Resilience Activity Rapid Assessment

AUGUST 2020

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Assessment background

Program context

The Rural Resilience Activity (RRA) is a five-year, \$30 million initiative funded by the United States Agency for International Development (USAID) covering the states of Adamawa, Yobe, Gombe, and Borno in North East Nigeria. The activity will directly benefit more than 90,000 households across the four states. Mercy Corps is the prime implementer in partnership with Save the Children International (SCI) and International Fertilizer Development Center (IFDC). The goal of RRA is to facilitate and protect economic recovery and growth in vulnerable, conflict-affected areas and sustainably move people out of chronic vulnerability and poverty via expanded opportunities. RRA aims to build the resilience capacities of systems and communities. It targets two types of community groups: namely 1) those already participating in markets to some degree, including producers as well as value chain actors; and 2) more vulnerable and marginalized populations who require skills and resources benefit from markets.



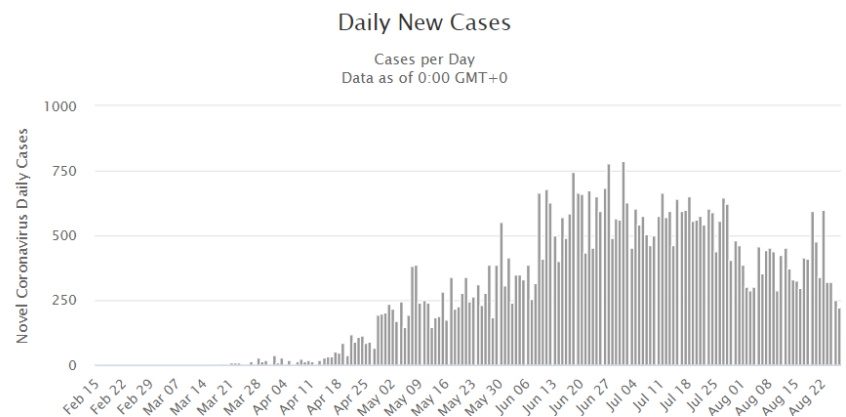
RRA began start-up activities in the spring and summer of 2020, focusing on preliminary market and resilience assessments to determine optimal intervention design. These activities were delayed by the COVID-19 outbreak in Spring 2020, which prohibited movement and interactions with partners.

COVID-19's impacts in Nigeria

COVID-19 was first detected in Nigeria on February 29, 2020 and case numbers rose steadily through the spring and early summer, beginning to plateau and then decline in July and August (**Figure 1**¹). As of August 27, 2020, 53,021 cases have been confirmed in Nigeria, with 740 cases in Borno, 719 in Gombe, 217 in Adamawa, and 67 in Yobe².

COVID-19 presents multiple concerns for households in northeast Nigeria still facing or recovering from the insecurity of

Figure 1: Confirmed COVID-19 Cases in Nigeria



¹ Worldometer: <https://www.worldometers.info/coronavirus/country/nigeria/>

² Nigeria Centre for Disease Control: <https://covid19.ncdc.gov.ng>

the Boko Haram conflict. Numerous challenges in poor infrastructure, security and access, and a decimated health care system hamper both case identification and treatment, and although testing capacity has improved nationally, it is unlikely to know and understand the full count of infections in the Northeast. Borno State in particular lost roughly 40% of its healthcare facilities in the conflict³, with hundreds of health care workers killed or injured and skilled physicians fleeing to other states.

In the Northeast, it will be critical that preparedness and response efforts are coordinated, address community acceptance, and prevent further eroding of human rights by an outbreak situation. Vulnerable individuals in the region, especially those living in makeshift shelters with limited access to assistance, may have weakened immune systems to fend off COVID-19 and infections could spread rapidly in IDP camps. Limitations to international travel may also hinder the ability of the aid community to respond to an outbreak, hindering human resource needs and potentially affecting supply chains.

The economic consequences of COVID-19 and government restrictions will increase the financial vulnerability of civilians who are attempting to transition off humanitarian assistance and establish independent livelihoods. Lockdowns in northeast Nigeria are expected to worsen pre-existing inequalities, particularly for people with disabilities and women and girls.

Narratives tied to COVID-19 may also cause or deepen social stigma and may appear quickly following an increase in reported infections, reported deaths, or high-profile individuals contracting COVID-19. Dominant narratives may also negatively impact community acceptance of WASH and health interventions targeting COVID-19, or alternatively lead to the promotion of unscientific cures, undermining the adherence to preventative measures.

Assessment purpose and framework

Purpose

The rapid assessment was conducted to facilitate RRA's startup in this unpredictable context by providing insight into market impacts and critical constraints facing households and actors in the Northeast. COVID-19 is a novel threat, which has prompted restrictions in movement and shipping throughout the country and world, and its effects in the region may not follow the pattern of previous shocks. This assessment examined the impacts on private firms within value chains, groups that fill supporting functions and affect rules and norms such as the government and financial institutions, and households engaged in market activities. Understanding each group's experience of COVID-19, their responses, and their needs are intended to contribute to responses by RRA and other development actors.

Additionally, the assessment serves as a precursor to RRA's start-up of originally planned program activities that have been affected or halted by the pandemic. While focused on the immediate impacts of COVID-19, it will also contribute to an understanding of the agricultural and livestock market

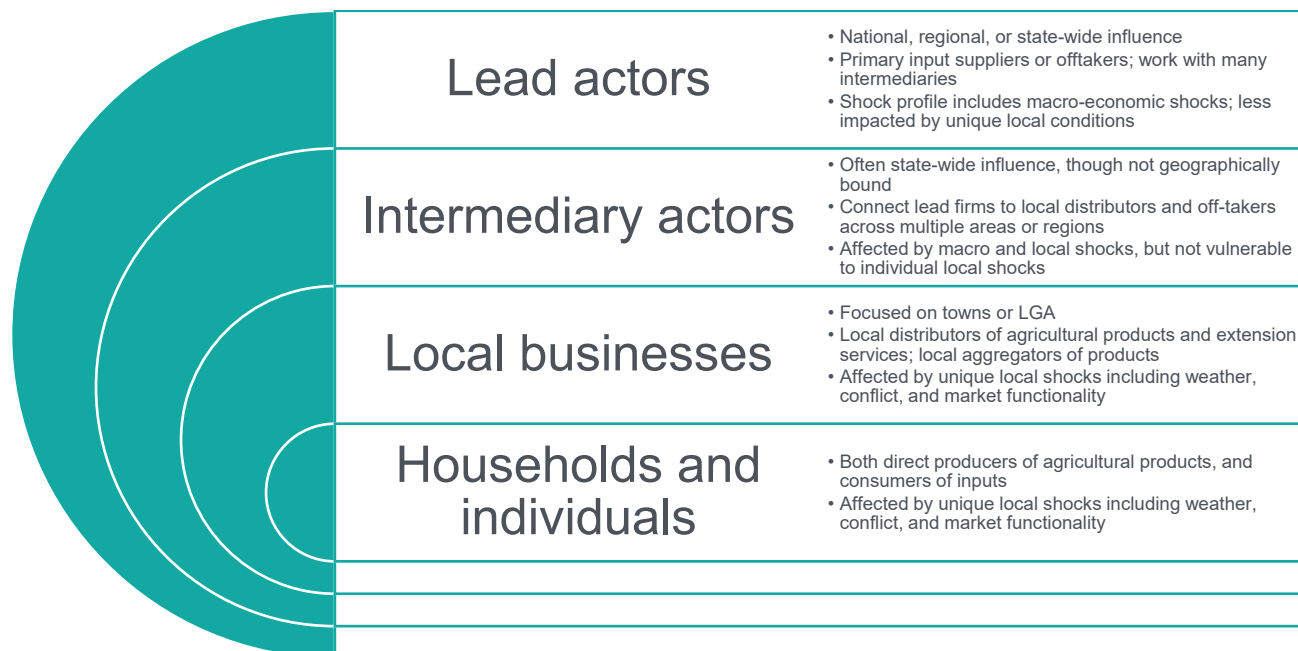
³ Obi, Felix Abraham and Eboreime, Ejemai. The Conversation, "How Boko Haram is devastating health services in North-East Nigeria", May 2017.

systems of the Northeast and employment patterns among the population. It identifies areas requiring further exploration and research as RRA’s activities and research progress.

Market systems resilience measurement framework

This assessment draws on Mercy Corps’ market systems resilience (MSR) measurement framework to categorize market actors and organize the analysis. For the purpose of this assessment, the framework describes shock impacts, responses, and functionality among the different levels of actors. Over time, the framework can also be used to examine the dynamic resilience of these levels and to understand how the resilience of one group interacts with another. The categorization of actors is shown in **Figure 2** below:

Figure 2: Market System Levels



Differential vulnerability

Within these categories, groups and individuals face different shock impacts and draw on various and coping strategies in response. This study prioritizes the analysis of differential shock vulnerability on three types of households, which were expected ex-ante to be most at-risk:

- Female-headed households
- Households headed by internally displaced persons (IDPs) or returned IDPs
- Households composed primarily of children (defined in this case as under 18 years old)

Defining market systems

This assessment occurred prior to RRA’s detailed market mapping, and at the time of writing the program has not yet fully defined the targeted value chains and market actors involved. This analysis therefore focuses on states instead of bounded market actors, operating under the assumption that many impacts of COVID-19 and restrictions will be similar within a state. While this approach matches

the needs and capabilities of a rapid assessment, future analyses will examine differences between specific value chains in greater details.

Each state had a unique market context even before COVID-19, with differences stemming from economic patterns and the imprint of the Boko Haram conflict. Borno has been the most directly affected by the violence of the conflict, particularly in the north of the state, which cut off farmers from their fields and prompted migration to cities. Yobe has also experienced higher levels of violence, while Adamawa has been less affected. Gombe has largely been spared direct violence, and has maintained its status as a regional trade hub, but has felt the secondary effects of resettlement and displacement. However, conflict has occurred in all four states conflict, with substantial variation between local government areas (LGAs).

The Government of Nigeria has imposed travel and operational restrictions on a state-by-state basis to curb the spread of COVID-19. This has generally taken the form of restrictions on inter-state travel, closure of businesses, and curfews on local movements. The state contexts are described in **Table 1** below:

Table 1: State Contexts

	Adamawa	Borno	Gombe	Yobe
Agricultural and livestock markets	Investment by large agricultural corporations, cross-border trade, cattle farming	Previously significant trade hub, labor shortage in rural areas as youth move to Maiduguri ⁴ . Many farmers unable to safely access fields or transport to markets	Regional trade hub, government goal to grow livestock farming industry ⁵ . Many small holder farmers raise sheep and goats ⁶	Agrarian state with large cattle stock. ⁷ , unrealized potential for large scale production
Food access and sourcing⁸	More own-cultivated food (15%), still use local markets as main source.	Limited access to ag fields. Less own-cultivated food (5.7%), some food aid (3%).	Limited information, considered strong. Government aims to drastically improve ag extension services and grow ag	Limited access to ag fields. Less own-cultivated food (5.0%).

⁴ Kah, Henry Kam. "Boko Haram Is Losing, But so Is Food Production': Conflict and Food Insecurity in Nigeria and Cameroon." Africa Development / Afrique Et Développement 42, no. 3 (2017): 177-96.

⁵ Gombe State Ministry of Agriculture: <https://gombestate.gov.ng/category/ministries/projects/ministry-of-agriculture/>

⁶ Saleh, Abdullahi, Yau Adamu, Kubra Hamidu, Muhammad Ahmad El Hafeez, and Shuaib Yau. "Socioeconomic Determinants and Constraints to Small-Scale Sheep Marketing in Gombe Metropolis, Gombe State Nigeria." Current Investigations in Agriculture and Current Research 3, no. 2 (June 20, 2018): 1–13.

⁷ "From Subsistence to Markets – FAO, Yobe State Government and Stakeholders Brainstorm To Enhance Agriculture Production | FAO in Nigeria | Food and Agriculture Organization of the United Nations."

⁸ Palladium, "Developing Private Sector Investment Opportunities in North East Nigeria", November 2018.

			production in Gombe.	
Conflict	Less impact, but variation by LGA.	Higher conflict impact.	Limited direct impact variation by LGA.	Higher conflict impact.
COVID-19 restrictions	Strict curfew, border limits. Food markets not heavily restricted.	Strict curfew, border limits. Food markets not heavily restricted.	Limited curfew. Food markets not heavily restricted.	Strict curfew, border limits. Food markets not heavily restricted.

Research questions

The rapid assessment addresses the following sets of questions:

Shock impacts

How are the COVID-19 crisis and related restrictions on movement and interaction affecting actors at the three levels: lead market actors, intermediary actors, and households?

- *What are the effects on the supply of critical supplies (food, medicine, productive inputs), the operations of businesses and input suppliers, and the activity of supporting functions, rules, and norms? What are the effects on households' livelihoods and income?*
- *Has the pandemic exacerbated or mitigated other shocks and stresses (climactic, conflict, economic) affecting these three levels?*
- *Are specific groups within these levels impacted more strongly or in different ways?*

Purpose:

Understanding the impacts at each level will support prioritization towards the most affected groups: geographically, demographically, and by value chain, and target activities towards the major constraints and needs facing them. By comparing between levels, the assessment will also identify areas where shocks have rippled between levels, or hold the potential to do so.

RRA's activities will focus primarily on agricultural and livestock market systems, without an intention to address food and medical supply lines. Nonetheless, the extreme disruptions caused by COVID-19 may have jeopardized the food security of RRA's targeted populations, which would present an urgent need and likely impact the incentives for market systems development. The study, therefore, addressed this question through the household survey.

Short-term responses and sources of support

How have actors at the three levels responded to these shocks and restrictions?

- *What steps have they taken to maintain their well-being or functionality, and what sources of support have they drawn on?*
- *How effectively do these responses allow them to maintain their well-being or functionality?*

- *Do their sources of support differ from those used during other shocks and stresses? If so, why?*

Purpose:

Understanding the resilience profile of the market system actors and population will contribute to identifying leverage points – sources of support that prove critical or are faltering and require support themselves in the face of the pandemic. These questions will also lay the groundwork for future market and resilience assessments that RRA conducts in the future.

Sources of information and future expectations

What sources of information do actors at the three levels draw on to understand how the COVID-19 shock and associated restrictions will affect them in the future?

- *What further shock impacts do they anticipate?*
- *How are actors adapting to maintain their well-being, livelihoods, and functionality? What are critical needs in the future if the crisis continues?*

Purpose:

Successful COVID-19 response programming must draw on trusted sources of information – and understand potential sources of misinformation – to work with targeted groups. Understanding these sources, as well as their expectations around upcoming restrictions and market activity, will be critical to responsive design.

Data collection and sampling

This is a mixed-methods assessment driven primarily by feasibility and practicality over methodological rigor. It combines qualitative interviews with 50 key informants in the value chains and supporting functions, primarily at the lead and intermediary levels, with quantitative surveys of 368 households in the four target states.

Due to movement restrictions, respondents for the qualitative sample were selected using a snowball method and the sample consists mostly of prominent and easy-to-contact actors. Households were selected for the survey from Mercy Corps’ rosters of previous program participants. RRA team members conducted all data collection in May – June 2020, via telephone and video calls, with a small number of interviews conducted in-person at the insistence of respondents. Further details of the sample composition can be found in **Annex A**.

Results

This section describes the results of the assessment, categorized by levels within the Market System Framework and the research questions guiding the study. As was expected in a rapid study with restrictions on data collection possibilities, in some instances the data collected was not able to fully answer a question or raised further points of consideration for future research. These points are noted at the end of the report.

Market actor results

Input and extension service providers

Shock impacts

Challenges maintaining supply of raw materials and products to lead firms: Lead input suppliers typically sourced chemicals from India and China, while other inputs – such as palm kernel cakes or maize for animal feed – were sourced domestically. Substantial restrictions on imports as part of the Government’s COVID-19 response hampered firms’ ability to replenish inventories. Respondents were also often uncertain of their ability to navigate the bureaucratic process required to resume imports, which led to challenges forecasting their future inventories and supply chains. Animal feed was similarly affected, with reduced maize production and movement restrictions preventing national firms and regional hubs from acquiring sufficient supplies – although areas with heavy maize production were less affected. The combination of these reduced supply levels and uncertainty around the future frequently led to price increases for agricultural and livestock inputs. One supplier of animal feed noted that the price of maize had increased from NGN 7,000 – 8,000 per 100kg bag to NGN 9,000 – 10,000 in rural areas, and from NGN 11,000 – 12,000 to NGN 14,000 – 15,000 in Maiduguri.

Reduced demand and payment capacity among customers: Within the agricultural value chains, many input supply firms reported a natural reduction in demand for their products after planting season. However, they also reported further reductions in demand due to movement restrictions, which prevented farmers from reaching their fields and engaging in agricultural activities. This finding aligns with households’ own reporting, detailed in Household Results below.

Compounding this, many farmers who would otherwise be purchasing inputs faced resource constraints, with reduced income stemming from challenges harvesting crops and shipping them to market. Before COVID-19, input suppliers could serve liquidity-constrained customers through a variety of alternate payment methods. Lead firms would offer credit to intermediary suppliers, who could then offer lines of credit directly to farmers. Firms could also engage in direct exchanges of input for produce, with aggregators and processors serving as the intermediary suppliers and receiving harvested crops directly from the farmers. These avenues of credit and in-kind exchanges were also severely hampered by COVID-19, with many lead firms themselves facing liquidity challenges due to reduced sales, and subsequently being less able to provide credit downstream. In-kind trades were also limited by concerns over decreased production on the part of farmers, as well as transportation challenges (discussed below).

Operational constraints: Input firms, like many other businesses in Nigeria and worldwide, adjusted their internal operations drastically to reduce the risk of spreading COVID-19, and to comply with government regulations. Many lead firms closed offices and used smaller shifts of workers, reducing their operational capacity. Movement restrictions also severely hampered shipping between states, limiting transportation of inputs from lead firms to local providers, and further to customers. While agro-dealers typically traveled for group sales pitches and demonstrations, agents were more limited in the geographic scope they could cover and in the size of groups they engaged with.

These constraints led to three consequences. First, firms bore increased costs for the amount of product supplied, which in some cases has increased their prices as they attempt to recover their losses. Second, goods with short shelf-lives – particularly animal feed, lasting 3 months – expired as the firms' stocks exceeded demand and their logistical capacity to ship, effectively increasing their cost per quantity of product. One national firm noted, "Now we are losing products worth more than Ten Million Naira due to our inability to distribute them."

Lastly, uncertainty over future supplies led some suppliers to ration their stock. This was noted at the regional level for rice traders, who in some cases anticipated a prolonged shortage owing to COVID-19, which led to supply limitations in some markets. In more remote areas, some local-level input dealers also prioritized the supply of pesticides and herbicides for their known customer base, as a means of maintaining their customers' trust and business.

Responses and sources of support

Logistical changes and incorporation of communication technology: Larger input suppliers made a variety of operational changes to reduce costs, including downsizing and reducing the services and goods offered. Additionally, many firms which thrived protected their functionality by drawing on technology solutions to facilitate their internal operations, and to maintain connections with their clients and high profile markets. This included the incorporation of communication services such as Zoom, WhatsApp, and Google Hangouts. Some firms also switched to contactless delivery options to protect workers and customers in compliance with government regulations, while maintaining their sales. Some fertilizer suppliers also shifted their supplier to the government, which offers cheaper alternatives to the private market.

Obtaining government permits and adjusting sales practices: With transportation and customer access becoming major constraints, one large input supplier was able to revise their outreach plan among local agents by providing movement passes declaring their travel essential (obtained from the government), and shifting from group sales pitches to individual advisory sessions. While this enabled continuing operations, it was nonetheless a less efficient marketing approach, with an estimated 300% increase in the cost of last-mile deliveries and engagement.

Off-takers and processors

Shock impacts

Reduced purchasing power and halt of exchange for raw materials: As noted above, off-takers would often exchange agricultural inputs for farmers' produce, effectively functioning as intermediary input suppliers. This practice ended during the COVID-19 lockdown, and many off-takers and processors had limited liquidity to purchase farmers' goods for cash. Constraints on the operations of financial service providers (detailed below) further constrained off-takers and processors, as their lines of credit were restricted. As a result, less product came in for processing during the lockdown.

Operational constraints: Off-takers' and processors' operations were sharply affected by restrictions on number of workers within a shift, limiting the labor that serves as a key part of their functioning. The supply of laborers was also reduced, and firms tended to pay a higher price per worker (and due to the cost of implementing required sanitation protocols). Movement restrictions

also affected off-takers and processors; importation restrictions limited their supply of additives and spare parts, while domestically staff were less able to visit their suppliers.

Responses and sources of support

Downsizing operations: To minimize costs while raw inputs were less available, most firms reduced their staffing and any discretionary expenditure – further limiting their output.

Connecting aggregators to financial institutions: Where possible, some off-takers and processors connected their partner aggregators to financial institutions. Accessing external credit allowed the supply chain to continue acquiring farmers' produce to maintain functionality.

Transporters

Shock impacts

Increased difficulty and cost of movement: While most respondents considered the Boko Haram conflict a great challenge, the government movement restrictions nonetheless led to alternative routes and longer delivery times. Transporters also faced higher costs due to taxes and fees, generally informal, paid at military checkpoints. Some were even required to pay for military escorts. Compounding this, logistics providers and drivers were concerned about the potential hazards of crossing state borders, reducing the supply of trucks and increasing their price.

Reduced demand: COVID-19's impacts on input suppliers and off-takers, detailed above, reduced the total tonnage of goods being shipped throughout the Northeast. As a result, there was reduced demand for transporters' services during the lockdown period.

Responses and sources of support

Provision of credit: To maintain their customer base, some transporters began to offer two forms of credit. For long-standing customers, they provided direct financial credit from their own working capital, allowing them to purchase goods despite poor liquidity. More generally, they also transported goods on credit, obtaining repayment for their transportation services at the time of sale. This allowed their customers to continue shipping, while offering little risk to the transporters.

Financial service providers

Shock impacts

Reduced willingness and capacity to grant credit and loans: The majority of banks interviewed reported increased risk in lending due to increased rates of default among borrowers. Defaults were more common among small enterprises and individual farmers who lost income and had limited liquidity. One microfinance bank in Yobe reported a rise from no default in repayments in 2019 to 3% default during lockdown. Banks subsequently viewed larger businesses as safer investment because of their ability to provide material collateral in the case of default.

Internally, COVID-19 hindered the institutions' capacity to process and offer loans. Banks limited the number of staff operating within a branch at any given time to comply with the Central Bank of Nigeria's policies on COVID-19, which hindered their capacity to review loan applications. On top of staff shortages, restrictions on movement and in-person interactions limited their ability to visit potential borrowers and verify collateral. Government programs intended to support farmers in obtaining loans, by covering a portion of the risk and connecting them to creditors, were likewise hindered in registering farmers and verifying their farm plots. Although demand continued, these operational constraints hindered their ability to meet it. Among farms engaged in the government programs, many previously received money distributions in direct exchange for their farm produce – a practice which has also been halted or hindered by the movement restrictions.

Reduced demand for agricultural insurance: Among small-scale farmers in particular, demand for agricultural insurance fell for two reasons. First, as production slowed and farmers either ceased or limited their activities, they naturally required less insurance. However, for those still engaged in agricultural activities, the rising cost of inputs priced out insurance for many.

Responses and sources of support

Operational changes: Like input suppliers, some financial institutions incorporated technological solutions to maintain some workplace functionality in spite of restrictions on worker attendance and branch closures. They also began to expand their digital and mobile banking services, though these remained more common in urban and semi-urban areas rather than the rural Northeast. Some financial institutions decentralized loan approval authority, getting around movement restrictions by using field marketers approve loans directly rather than requiring visits from centralized headquarters and extensive Know Your Customer processes. In Adamawa State formal financial service providers were forced to close business due to the lockdown, which increased demand for bank agents and provided employment for a set of youths who enrolled into the businesses as a means of earning a living.

Technology providers

While technology provision was not considered a critical supporting function at the start of the assessment, its role fostering adaptation among other market actors quickly became clear, and the sample of respondents was expanded to include technology providers.

Shock impacts

Internal operational constraints: Technology providers faced the same restrictions on office openings and number of employees allowed in a given period as other market actors. As they shifted to remote work and remote technical support, with limited in-person customer meetings, some firms faced challenges and reduced productivity.

Changes in demand and content provided: Many firms which offered subscription services to their customers suspended them to accommodate their customers' loss of liquidity. Among communications firms that created informational content to distribute by television, radio, or other media (often working with development actors), creation of new shows and media became very difficult under the restrictions. They commonly shifted to crowd-sourced content or drew on their

older archives recorded before the pandemic, operational issues, with shift to working from for technical support, and limits on in-person meeting and support to customers.

Firms providing services that facilitated the agricultural value chain, such as platforms for mechanization services, faced disruption in both the supply and demand for these services. Mechanization providers in particular also faced challenges in sourcing replacement parts for tractors.

Responses and sources of support

Increased customer base and profits: Unlike the other market actors discussed, most technology firms were buffered by vast increase in demand. In spite of their own challenges brought on by COVID-19, they reported large gains in revenue over the previous year.

Household level results

Shock impacts

Critical supplies: While RRA's planned activities do not focus on maintenance of food or medical supply lines, if COVID-19 led to extreme food insecurity, that fundamental need will preclude other market systems development activities unless resolved. The assessment therefore examined access to and availability of food from the household perspective.

Shop Functionality: The government's restrictions did not apply to food suppliers, and few respondents reported shop closures. 95% of the full sample reported that their local shop was open, and 95% reported that other shops were also open for businesses. There was little variation between states.

Location of purchase: In line with this, 88% of respondents made food purchases within their community. This was marginally lower in Borno (81%), approximately equal in Adamawa (87%), and higher in Gombe (95%) and Yobe (91%).

Change in Food Prices: Although shops remained open, the vast majority of households reported increases in the price of food – 91% across the full sample, ranging from 87% in Borno to 94% in Yobe. A small minority – 7% of the sample – reported decreases as well as increases, and only 1% of households saw decreases or static prices.

Availability of Food Products: Across the states, Tubers/Grains/Cereals were the most reported staple products that became unavailable during the pandemic, but had previously been available. Within the full sample, 42% reported Tubers/Grains/Cereals as currently unavailable. Milk and dairy were the least affected, and within the full sample 18% reported milk/dairy as unavailable currently. 36% of respondents in Adamawa and 9% in Gombe reported meat/fish as not currently available, with 22% in Borno and 31% Yobe reporting the same. For each category of food product, **Gombe was less affected by shortages** – reporting a lower degree of unavailability than the other states, reflective of the continued trading there throughout the lockdown. Although Adamawa had higher baseline levels of own-food production (15%, compared to 5-6% in Borno and Yobe), this does not

appear to have preserved food supply in the state – Adamawa in fact appeared more affected by the loss of certain food products. Qualitative reports from aggregators and animal feed producers suggested that food-producing areas typically retained some portion of their produce, and in particular, maize was said to be more available in high-production areas. However, the survey does not contain sufficient sample size to compare between smaller geographic areas.

Table 3: Shock Impacts

Group	Variable Name	Full Sample		Adamawa		Borno		Gombe		Yobe	
		N	Mean	N	Mean	N	Mean	N	Mean	N	Mean
Shop functionality	Local shop open	370	95%	100	92%	97	95%	66	97%	105	96%
	Other shops open	370	95%	100	94%	97	95%	66	97%	105	96%
Food products purchased in past 7 days	Tubers/grains/cereals	370	91%	100	89%	97	88%	66	95%	105	94%
	Legumes/nuts	370	69%	100	52%	97	64%	66	86%	105	77%
	Vegetables/fruit	370	61%	100	50%	97	63%	66	67%	105	67%
	Meat/fish	370	41%	100	42%	97	40%	66	44%	105	38%
	Milk/dairy	370	14%	100	8%	97	23%	66	18%	105	8%
	Condiments	370	62%	100	50%	97	65%	66	47%	105	79%
	Other	370	0%	100	0%	97	0%	66	0%	105	0%
	None	370	1%	100	1%	97	1%	66	0%	105	0%
Location of purchase	Purchased in community	370	88%	100	87%	97	81%	66	95%	105	91%
Change in food prices	Decreased/Remained Same	370	1%	100	0%	97	2%	66	0%	105	0%
	Mixed increase and decrease	370	7%	100	7%	97	8%	66	8%	105	5%
	Increased	370	91%	100	92%	97	87%	66	89%	105	94%

Food products available before Covid-19 but not currently available	Tubers/grains/cereals	370	42%	100	48%	97	41%	66	29%	105	46%
	Legumes/nuts	370	24%	100	34%	97	23%	66	17%	105	20%
	Vegetables/fruit	370	20%	100	27%	97	18%	66	12%	105	20%
	Meat/fish	370	26%	100	36%	97	22%	66	9%	105	31%
	Milk/dairy	370	18%	100	14%	97	24%	66	8%	105	23%
	Condiments	370	33%	100	37%	97	30%	66	18%	105	40%
	Other	370	0%	100	0%	97	0%	66	0%	105	0%
	None	370	35%	100	20%	97	41%	66	64%	105	26%
Government restrictions	Aware of government COVID restrictions	365	99%	100	100%	96	100%	65	100%	104	97%
	# Weeks ago restrictions began in the area	362	4.18	100	4.62	96	4.27	65	5.02	101	3.12

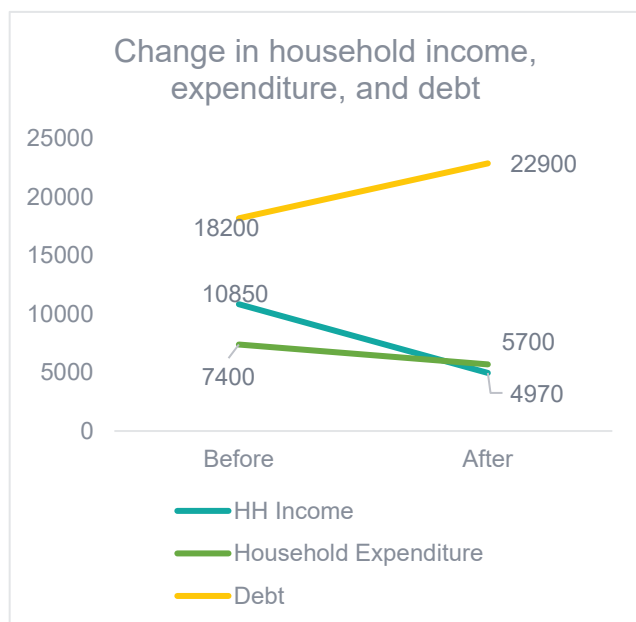
Differential vulnerability

Households’ perceptions of food availability and pricing generally did not differ by specific vulnerability groups: gender of the head of household, IDP status, or age composition of the household. This similarity is expected when all groups have equal access to the same local market systems. Two groups differed slightly in their reports of food availability: **more IDP-headed households reported that food products were no longer available**, particularly the staple category tubers, grains, and cereals (55% of IDPs, compared to 34% of hosts and 33% of returnees). IDPs were also slightly more likely to have increased their purchasing habits during COVID-19 (52%) and less likely to have decreased purchasing (34%) compared to the two other groups, which saw approximately equal proportions increasing and decreasing their purchasing. This may reflect a desire to stockpile by IDPs, or uncertainty over markets’ continued food supplies. These differences between IDPs and hosts were consistent across states, suggesting it does not stem solely from the location of settlement.

Households with a larger proportion of members under 18 also more consistently increased their purchasing habits, with fewer decreasing them under COVID-19, likely reflecting an inflexible need for food by children.

COVID-19' impacts on livelihoods, and employment

Awareness of movement restrictions: Households in the Northeast were universally aware of government restrictions due to COVID, with 97% of respondents aware of the restrictions in Yobe and 100% in the other 3 states. This aligns with the relative newness of the movement restrictions there, averaging 3.1 weeks before the survey, compared to 4 – 5 weeks in the other states.



Income, expenditure, and debt: COVID-19 and associated restrictions substantially impacted households' ability to work, earnings, and expenditure. Many households expected some return to normalcy within the next month, but had also seen large decreases in their income and expenditure during the previous month. On average, weekly household income had decreased 55% from 10,850 naira to 4970 naira, while weekly expenditures had decreased 22% from 7400 to 5700 naira. Average household debt also increased by 26%, from 18,200 naira before COVID-19 to 22,900 at the time of the survey.

Adamawa was hardest hit by income and employment loss, averaging a 9400 naira reduction in weekly income compared to a 4000 – 5000

reduction in the other three states. Expenditure decreased equally across the states. However, household debt increased most significantly in Borno (9800 naira) and Adamawa (5800 naira), while the debt of households in Yobe and Gombe only increased by less than 2700 naira.

Changes in work and employment: This loss of income stems from a decrease in livelihood and work opportunities: 70% of households engaged in farm work, averaging 3.5 members conducting farm activities full- or part-time before the pandemic, reduced to 1.7 at the time of the survey. Off-farm labor experience a similar reduction, from 3 household members before COVID-19 to 0.9 at the time of the survey.

In line with the reductions in income, households in Adamawa and Borno saw the greatest loss of farm labor. However, these households were also more confident in quickly resuming some or all of their farm work, almost twice as likely as households in Yobe.



Movement restrictions associated with COVID were the primary obstacle to farm work (71% of households engaged in farm activities), followed by business closures (39%), government

restrictions (33%), and difficulty obtaining inputs (17%). Conflict prevented only 7% of the households across the Northeast from engaging in farm work the week before the survey. Respondents were also asked more broadly about obstacles to conducting farm activities, with movement restrictions similarly affecting 43% of households who could not work outside, and 49% reporting that inputs were too expensive. Only 20% reported that inputs were unavailable completely, or that workers could not be hired.

Although Gombe and Yobe were less impacted in terms of income and household members working, each was more specifically affected. In Gombe, economic obstacles prevented engaging in farm work, with 51% of households prevented from working by business closures, and 35% by lack of inputs. Farm activities in general were also more impacted by pricing and travel there, with 83% of households reporting that inputs were too expensive, 53% unable to work outside, and 45% unable to hire. By contrast, in Yobe, the conflict has been more oppressive and 19% of households were prevented from engaging in farm work due to the effects of COVID, while 54% of households had been stopped from working in the week due to movement restrictions before the survey.

Fewer households engaged in off-farm work (45%), but similarly saw an average of 1.5 fewer members working full-time and 0.5 working part-time. 66% of households expected most or all of these members to resume working within the month, which was consistent across the four states. As with farm work, the primary obstacle was movement restrictions (65%), followed by business closures (51%), government restrictions (38%), lack of inputs (20%), and conflict (7%). Conflict in Yobe prevented more households from off-farm work (14%) than other states, while movement restrictions only affected 49%.

The full results of COVID-19's effect on households is presented in **Annex B**.

Differential vulnerability

The livelihood and employment impacts of COVID did not differ substantially by IDP status or by household age composition, though IDPs had a larger decrease in expenditure (2500 naira per week, compared to 1100 among hosts and 100 among returnees), and took on less debt (1800 naira compared to 3500 among hosts and 8500 among returnees).

Female-headed households saw larger decreases in income (a decrease of 7100 naira per week compared to 5700 among male-headed households), but nonetheless only reduced expenditure by 600 naira compared to male-headed households' 1800 naira per week.

Female-headed households lost an average of 5900 naira from their weekly income. They also increased their debt burden by only 1100 naira, compared to male-headed households' 5400 naira increase, and were more optimistic that some or all household members could return to work within a month.

Considering individuals within the household, it also appears that **women are more often expected to cease their work during COVID**. While 64% of households felt most or all men would return to farm work within 1 month, only 37% of households felt most or all women would return in the same period. As noted in the Differential Vulnerability section below, female-headed households were

more likely than male-headed households to believe that household members of both genders would resume farm work within 1 month – 75% believing men would resume work, compared to 61% of male-headed households, and 48% believing women would resume work, compared to 33% of male-headed households. These differences did not persist for return to non-farm work.

Impact of non-COVID-19 shocks

While half of the household respondents were only affected by COVID, the other half reported a variety of concurrent shocks. 30% of households had been affected by conflict or armed groups in the previous month, 18% had experienced illness, and 10% were struck by flooding or excessive rain. Only 4% were affected by drought and 3% by forced migration or government orders.

Among the households that experienced shocks other than COVID, the influence on their livelihoods and well-being were similar to those of COVID-19 and its restriction. 54% had their movement restricted, and 54% were at times unable to generate income because of the shock. 36% could not access a market, and 31% could not obtain sufficient food.

The shock profiles of the four states differed, with 56% of residents in Yobe impacted by conflict, 19% affected by floods, and 10% by forced migration. The effects of these shocks were also more critical, with 53% of households unable to access a market and 48% unable to obtain sufficient food. In contrast, Gombe was almost completely unaffected by conflict (3%), but more likely to report illness (38%) or only experiencing COVID as a shock.

	Variable Name	Full Sample		Adamawa		Borno		Gombe		Yobe	
		N	Mean	N	Mean	N	Mean	N	Mean	N	Mean
Other shocks affected HH in past month	Conflict/Armed Groups	368	30%	100	31%	97	20%	66	3%	105	56%
	Forced Migration/Government Orders	368	3%	100	0%	97	2%	66	0%	105	10%
	Drought	368	4%	100	2%	97	4%	66	6%	105	6%
	Flooding/Excess Rain	368	10%	100	10%	97	2%	66	8%	105	19%
	Illness	368	18%	100	11%	97	22%	66	38%	105	10%
	Other	368	57%	100	61%	97	69%	66	71%	105	34%
	Only COVID	368	50%	100	52%	97	63%	66	62%	105	30%
Impact of other shocks on	Restricted Movement	247	54%	68	47%	58	52%	36	47%	85	64%

HH in past month	Unable to Access Market	247	36%	68	18%	58	41%	36	22%	85	53%
	Unable to Obtain Food	247	31%	68	19%	58	22%	36	25%	85	48%
	Unable to Generate Income	247	54%	68	40%	58	62%	36	64%	85	55%
	Other	247	15%	68	24%	58	17%	36	22%	85	5%

Differential vulnerability

IDPs were more impacted by conflict (48%) than hosts (21%), as were returnees to a lesser extent (36%). 10% of IDPs were also affected by forced migration, while no host respondents were so affected. IDP households were also more at risk of illness, with 29% affected compared to 29% of hosts. The impact of these shocks was also more critical among IDPs, with 60% unable to access a market and 56% unable to obtain food, relative to 28% and 23% among host households.

Female-headed households had similar shock profiles to male-headed ones, but those which were affected by shocks also experienced more severe impacts: 48% were unable to access markets and 40% unable to obtain sufficient food, compared to 31% and 28% of male-headed households. However, female-headed households were also more likely to believe that household members of both genders would resume farm work within 1 month – 75% believing men would resume work, compared to 61% of male-headed households, and 48% believing women would resume work, compared to 33% of male-headed households.

Shock impacts did not differ substantially between age compositions of households.

Coping Strategies and Sources of Support

Household coping strategies and sources of support: Many households had used basic coping mechanisms in the week before the survey, including using less expensive foods (51%), purchasing on credit (52%), limiting portions (39%), and taking financial or material support from family or friends (35%). Fewer had used more extreme coping strategies: 16% sold productive assets, 12% consumed stored seeds, and 6% reported withdrawing children from school (though the government also imposed a lockdown on schools). In Adamawa State, some households sent their children to live with relatives or family members because they could not afford to feed them.

Most households received financial support in the past month from close sources: 55% borrowed from family or friends, and 43% from shopkeepers or other community members. While 14% withdrew savings, very few drew on larger financial sources: only 7% borrowed from a savings or loan association, and only 3% borrowed from a formal financial institution. 67% of households had borrowed from that source previously. Qualitative interviews with both market actors and financial

institutions suggested that shopkeepers were not serving as a conduit between households and formal financial institutions – they held a mistrust of fixed, high interest rates that would not accommodate challenges in the business environment. However, both wholesalers and transportation providers reported offering credit to shopkeepers, suggesting that informal credit lines extended beyond the community. The sampling of the assessment did not allow for a more detailed examination of this dynamic however.

Beyond borrowing, few households received support from others. 18% had received help from their family, friends, or neighbors in the previous week, but only 5% were supported by international NGO’s and only 1% by local government and community organizations. This tended to be in-kind; of those who received support, 74% received in-kind assistance and 47% financial. Half of respondents had drawn on these sources before COVID.

Borno took the most extreme coping actions, with an alarming 36% of households selling productive assets, 22% consuming stored seeds, and 58% limiting portions. More had also turned to savings and loan associated (19%), aligning with the largest increase in household debt of 9800 naira. Other community members were the only substantive source of direct support, which was primarily in-kind.

In contrast, Adamawa used fewer coping strategies in general, and particularly few extreme copings actions – 7% sold productive assets, while 4% consumed stored seeds.

	Variable Name	Full Sample		Adamawa		Borno		Gombe		Yobe	
		N	Mean	N	Mean	N	Mean	N	Mean	N	Mean
Food security coping strategies	Used less preferred or less expensive foods	370	51%	100	27%	97	65%	66	61%	105	56%
	Purchased on credit	370	52%	100	28%	97	63%	66	55%	105	66%
	Limited portion size or skipped meals	370	39%	100	20%	97	58%	66	42%	105	40%
	Restricted consumption by non-working HH members to feed those working	370	5%	100	1%	97	9%	66	12%	105	1%
	Consumed stored seeds	370	12%	100	4%	97	22%	66	11%	105	10%
	Sold productive assets	370	16%	100	7%	97	36%	66	9%	105	10%

	Taken children out of school	370	6%	100	8%	97	9%	66	5%	105	4%
	Taken financial or material support from family or neighbors	370	35%	100	28%	97	31%	66	53%	105	32%
	Taken financial support from bank	370	2%	100	1%	97	3%	66	8%	105	0%
	Taken financial support from other source	370	6%	100	1%	97	9%	66	18%	105	1%
	Sent HH member to eat at other house	370	6%	100	1%	97	6%	66	9%	105	8%
	Had HH member migrate	370	1%	100	0%	97	1%	66	2%	105	1%
Financial coping strategies used in past month	Loan from Financial Institution	368	3%	100	0%	97	4%	66	8%	105	1%
	Loan/Saving Association	368	7%	100	4%	97	19%	66	3%	105	2%
	Borrowed from Friends/Family	368	55%	100	39%	97	49%	66	55%	105	76%
	Borrowed from Shopkeeper/Community Member	368	43%	100	16%	97	45%	66	45%	105	67%
	Withdrew Savings	368	14%	100	13%	97	16%	66	35%	105	1%
	None	368	16%	100	32%	97	10%	66	17%	105	7%
	Other	368	7%	100	11%	97	6%	66	6%	105	5%
Change in sources of finance	Borrowed from Source Previously	274	0.67	49	0.65	80	0.65	52	0.67	93	0.70
Debt	Amount of HH Debt 1 Month Ago	368	1818 7.91	100	1678 3.50	97	1798 7.63	66	2425 6.06	105	1589 6.19

	Current HH Debt	368	2290 2.26	100	2253 9.50	97	2775 2.92	66	2692 0.45	105	1624 0.95
	Change in Debt	368	4714. 36	100	5756. 00	97	9765. 29	66	2664. 39	105	344.7 6
Sources of support in past 7 days	Local Government	368	1%	100	1%	97	1%	66	3%	105	1%
	Community Organization	368	1%	100	0%	97	0%	66	5%	105	2%
	Friends/Family/Neighbors	368	18%	100	11%	97	14%	66	33%	105	18%
	International NGOs	368	5%	100	1%	97	1%	66	0%	105	16%
	None	368	75%	100	86%	97	81%	66	61%	105	67%
	Other	368	2%	100	2%	97	2%	66	3%	105	0%
Type of support received in past 7 days	Financial Support	93	47%	14	43%	18	28%	26	58%	35	51%
	In-Kind Support	93	74%	14	50%	18	89%	26	85%	35	69%
	Material Support	93	1%	14	7%	18	0%	26	0%	35	0%
	Other	93	3%	14	7%	18	0%	26	4%	35	3%
Received support from source before restrictions	Received Support Before Restrictions	93	48%	14	36%	18	33%	26	65%	35	49%

Differential vulnerability

IDP-headed households used more coping strategies in general, with 68% using less expensive foods, 69% purchasing on credit, and 58% limiting portions – each approximately 20 percentage points more than hosts. They were also more likely to borrow from friends and family, and from shopkeepers and community members.

Coping strategies and sources of support did not differ substantially by the gender of the head of household or the age composition of the household.

Sources of Information

Households universally felt informed about COVID and COVID restrictions, with most gaining their information from the news (85%) and friends (51%). Approximately a quarter each were also

informed by government announcements, local leaders, and the internet. These sources were generally consistent across the four states.

	Variable Name	Full Sample		Adamawa		Borno		Gombe		Yobe	
		N	Mean	N	Mean	N	Mean	N	Mean	N	Mean
Informed	Feel Informed re: COVID Symptoms & Prevention	368	96%	100	97%	97	97%	66	98%	105	92%
Source of information on COVID	Government Announcement	368	26%	100	20%	97	37%	66	30%	105	19%
	News	368	85%	100	90%	97	81%	66	86%	105	81%
	Friends	368	51%	100	45%	97	45%	66	53%	105	59%
	Local Leaders	368	24%	100	9%	97	30%	66	35%	105	28%
	Internet	368	21%	100	20%	97	25%	66	30%	105	13%
	Other	368	4%	100	3%	97	7%	66	2%	105	4%

Differential vulnerability

While information sources were generally consistent between subgroups, female-headed households were slightly less likely to gain information from the government (9%, compared to 30% of male-headed households) and the internet (13% vs 24%), and slightly more likely to turn to friends as a source.

Sources of information on COVID did not vary by IDP status or age composition.

Conclusions

The most fundamental impact of COVID-19 on all levels of the agricultural market system, from lead firms to local households engaged in farm work, was **isolation and disconnection between actors**. Among lead and larger supporting actors, this began internally with the closure of offices and shifts towards remote working. More critically, **restrictions on movement between and within states cut ties between input suppliers and their customers, and between off-takers and local farmers**.

At the highest level of the value chain, input suppliers faced challenges importing necessary products, and as they sought to engage with customers and distribute their products they were frequently unable to transport across states, and connect their agents with customers. Some lead firms innovated to work around these restrictions, both by incorporating communication technologies to contact customers, and by working with the government to obtain passes for local agents. However, these

novel approaches were still less efficient than standard operations, and may not have fully substituted their market coverage.

Off-takers and processors were similarly hampered when aggregating agricultural produce. The volume of produce available has been greatly reduced, and more than input suppliers, processors' own operational levels were reduced by the need for social distance. Products which could not be processed expired after approximately 90 days, and even after processing new restrictions often precluded export to customers abroad.

In addition to these vertical breakdowns, **value chain actors were also disconnected from many supporting functions**. Financial institutions closed many branches, and were less able to provide loans due to their perceptions of increased risk (particularly among smaller borrowers with limited collateral) and reduced staff capacity. The few financial service providers who braved the odds and continued to operate witnessed a large number of clients, potentially increasing the risk of exposure to COVID-19 for both staff and clients. The transport industry was also impacted more directly, with formal movement restrictions coupled with informal stops and payments increasing their costs, and reduced demand for their services as market actors limited their activity. While the assessment did not conduct repeated rounds of data collection, it suggested a strong possibility of self-replicating disruptions. With supporting actors finding decreased demand for their services, core market actors would find fewer service suppliers and increased costs – further limiting market activity.

From the **household perspective, COVID-19 drastically reduced their ability to work, as well as their income and expenditure**. They commonly changed their behavior as a coping strategy, particularly reducing portions or using less expensive foods as prices rose. In spite of this, extreme coping measures – consuming seeds, selling productive assets – were limited. While lead and intermediate firms were cognizant of challenges transporting inputs into the Northeast, **households saw the movement restrictions themselves as the biggest obstacle to continuing or recovering work**. However, obtaining sufficient and affordable agricultural inputs may become a clearer challenge as restrictions lift – in Gombe, where restrictions had a smaller impact, households had already begun to identify inputs as a major challenge.

While households in the Northeast were universally affected by COVID-19, these impacts have varied between groups. **Female-headed households and IDP-headed households were particularly vulnerable**, having lost more income than male- and host-headed households. This may result in future poverty traps, as both groups also appear more isolated from the support of the market system – women were not as confident in recovering employment, and IDPs struggled to obtain food locally. Even taking into account the comparatively better-off male-headed host households, the rural population in general had only limited support from outside their communities. Very few engaged with the formal financial sector, or government and NGO programs, directly. Many did borrow from neighbors and shopkeepers, who were in some cases tapping into larger informal credit networks facilitated by market actors including transporters and input suppliers.

While further study is needed, the heavy use of informal support networks and local resources may pose a longer-term threat to communities, as borrowing from neighbors becomes untenable in an extended crisis. This insularity was also seen in households' information sources, with a heavy dependence on information sharing with friends and peers over official announcements. While this

assessment did not examine misinformation about COVID-19, given the uncertainty about the virus among the scientific community it may be expected that various households and communities establish their own views.

Recommendations

Identify and promote promising technological and operational innovations to maintain connections in the agriculture value chain

While lockdowns will not continue indefinitely, world-wide uncertainty around the future spread of COVID-19 suggests that market actors must be able to function in an environment of shifting movement and operational restrictions. This capacity will also be critical in the face of conflict, which can similarly curtail movement and introduce increased risks for businesses.

Promoting successful techniques which allow lead firms to interact with intermediaries and smallholder farmers throughout the Northeast will bolster the market system's capability to navigate this uncertainty. RRA can play a role in connecting firms with technology service providers and promoting the creation of new products for deployment in the Northeast. One key aspect of such products would be communication and extension services, which allow firms to engage customers, agree on service provision, and provide technical support to farmers remotely. More advanced systems could include digital payment systems, as well as add-on options for financial services – connecting customers with microcredit, digitally secured loans, and loan repayment options. The assessment suggests that formal banks already had limited footholds within the region prior to COVID-19 due in part to centralized loan review and approval processes. Incorporating value chain actors as outreach agents (either independently or in cooperation with local bank branches) will expand the coverage of financial institutions, while increasing the liquidity and purchasing potential of customers.

However, in promoting and expanding these innovations, RRA should remain cognizant of potential risks for their targeted participant populations. Firstly, the program must understand constraints on the side of farmers – many may not have access to online platforms and apps, or may depend on others in their community for this access. Expanding offerings alone could increase the customer base for input suppliers and off-takers, without engaging with more vulnerable or disenfranchised groups.

Additionally, as RRA identifies opportunities to expand access to credit, the risk profile of farmers and favorability of credit terms are important factors. The program should support solutions that are financially sustainable for financial service providers and the agribusinesses and farmers they serve, potentially coupled with expanded financial literacy training for customers newly engaging with the formal financial sector.

RRA may also promote other operational changes which protect the functionality of agricultural and livestock value chains in the face of movement restrictions. Improving input dealers' local sourcing network for products such as animal feed and pesticides/herbicides will allow them to maintain their supply chains in spite of import restrictions. Similarly, using more localized sales approaches – such

as drawing on networks of local agents to engage in smaller, direct sales will likewise allow the flow of inputs from firms to farmers to continue despite restrictions on interstate movement.

Include transportation as key sector in RRA's portfolio and engage government stakeholders

Movement restrictions have placed a dampening effect on agricultural and livestock value chains in the Northeast, increasing costs faced by value chain actors while reducing the flow of input and output goods. Due to its critical role and vulnerability to shocks, both stemming from COVID-19 and the Boko Haram conflict, Mercy Corps should include the transportation sector as a value chain of interest within RRA. Doing so will allow direct engagement and a variety of interventions targeted at the sector.

While further analysis should be conducted prior to finalizing interventions, these could include several interventions to improve transportation coordination and information sharing. For example, the program could support connections between transporters, value chain actors, and other stakeholders which impact movement such as security forces. A platform for discussion and information exchange between these groups could improve coordination, reduced the time and cost associated with transport, and remove some of the uncertainty affecting market actors' behavior.

Mercy Corps could also explore options for more innovative logistics schemes, particularly those which crowd-source transport for farmers and market actors directly. Such approaches could improve smallholder farmer welfare, though Mercy Corps should consider carefully potential risks to vulnerable groups engaging in less regulated schemes. Mercy Corps could also explore opportunities for linkages between such services, transporter providers, and financial providers to expand the range of credit offerings transporters make available to their clients, which may allow for greater market participation in the face of liquidity constraints.

Identify and replicate "last-mile" innovations for financial service providers

Although households are able to depend on their communities for assistance, this approach is not likely to last through continued months of lockdown, as communities exhaust their resources. The financial sector is the most promising market-based method to inject new capital and resources into both agricultural markets and communities, but farmers are not currently engaging with formal actors and even savings associations are seeing reduced activity. RRA should identify and support innovative approaches being used by financial service providers to expand their reach. In the case of underserved populations, RRA should also explore other avenues to expand financial service offerings available to them.

Most prominently, Mercy Corps can work with financial service providers and technology firms to expand digital offerings which allow borrowing in spite of restrictions on movement – whether from COVID-19 restrictions or conflict – and interpersonal interactions. A critical aspect of this will be verifying borrowers' status and identity and allowing payments despite movement restrictions, either by shifting towards fully digital exchanges or drawing on actors that are more geographically diverse, such as transporters and local distributors/aggregators. Mercy Corps can also work with VSLAs to incorporate formal financial instruments within their offerings, and to expand their reach and reliability via digital platforms and capacity building.

Current offerings from the Central Bank of Nigeria are intended to support lending to small and medium enterprises, but typically necessitate the use of a formal bank as a payment intermediary while placing large logistical burdens on small or informal institutions such as microfinance banks that seek to participate. Mercy Corps may be able to play a role in assessing the challenges experienced by these institutions and designing interventions to address them directly. Alternatively, further analysis may indicate that other sources of funding are better suited to informal business needs and operational capacity.

Monitor household food access, consumption, and severe coping strategies to identify changes in urgent vulnerability

At the time of the survey, households were largely not faced with severe food shortages. However, if income sources are not recovered, or communities become unable to provide shared support, food access may become a pressing issue. RRA should build on this single-wave assessment by implementing a rapid, low-intensity monitoring program to track food security, consumption, and the use of severe negative coping strategies across the region, targeting direct interventions in cases of extreme hardship. Consumption of own-grown foods is not common in the Northeast, and may not serve as an effective buffer against system-wide shocks – Adamawa was the most independent state prior to COVID-19, with 15% consumption of own-grown foods, yet faced more losses in food availability than others. Food security interventions should therefore emphasize maintenance of local market activity in spite of shocks.

Future research considerations

Assessment of internet and mobile access among targeted participant groups

As input suppliers, off-takers, and supporting actors like financial institutions and associations engage more heavily with technology service platforms, it will be critical to ensure that these innovations do not further disenfranchise marginalized groups which do not have reliable internet access. If some groups, such as women-headed households or youth, depend on other community members for access then existing power dynamics may be further exacerbated. Mercy Corps should therefore assess digital and mobile coverage among target groups, and further investigate any social or economic dynamics related to access.

Purposive sampling of youth-headed households

Although households led by youth typically have less established income sources and are more vulnerable to a variety of shocks, this assessment did not achieve a sufficiently large representation of youth-headed households to meaningfully describe their current status. In future research and with more physical access to the Northeast, studies should ensure sufficient representation of youth – either through oversampling in quantitative surveys, or specifically targeted qualitative interviews and focus groups.

Exchange of information between households and businesses

While the study addresses physical and economic connections between households and local businesses, it does not examine the role of businesses as a source of information on COVID-19 and upcoming changes food and agricultural input availability. Understanding this relationship will be critical for RRA's intervention design, and further research should examine this information exchange through qualitative interviews or expanded quantitative surveys.

Investigation of the role of shopkeepers in connecting farmers and households to support outside the community

The assessments' sampling did not capture in-depth and generalizable information on the behavior of local shopkeepers, but the results did emphasize their pivotal role connecting community members to broader value chains and sources of support. Transporters and wholesalers innovated their service offerings to maintain their relationship with shopkeepers, offering lines of credit that enabled them to continue purchasing inputs. Likewise, households turned to local shops to borrow instead of engaging the formal financial sector. Further research should address this crucial level of the market system, and examine their decision-making processes in response to shocks. Additionally, given their position as potential gateways for external support, attention should also be paid to groups which might be unable to turn to them for assistance.

Examination of input-rationing among intermediary and local suppliers

While the rapid assessment's sampling resulted in an emphasis on lead market actors and households, reports emerged of rationing by intermediary input suppliers to maintain customer relationships. This behavior is a rational response by market actors, but may also lead certain populations – particularly already vulnerable groups – to be pushed out of agricultural market activity if they are unable to obtain inputs. The rapid assessment did not obtain the information necessary to examine these risks, and further study would be beneficial to assess how and why suppliers make the decision to engage in rationing, and which groups are most affected.

Annex A: Sampling

Qualitative methods

Sampling

In selecting respondents for the qualitative interviews, we prioritized feasibility and insight into the market system of the Northeast. Since the rapid assessment was conducted before the program's kick-off market mapping, no holistic list of market actors was available, and we could not recruit respondents directly due to movement restrictions. The RRA team's market experts compiled a list of critical actors, grouped by market function: value chain participants, supporting actors with an emphasis on financial institutions, government, and civil society. The selected sample covers both lead and intermediate actors, with coverage across the four targeted states. Snowball sampling was used to include actors within key functions mentioned by respondents, particularly tech firms.

Analysis

The RRA team's experts reviewed notes from each interview, coding trends in impacts of COVID-19 and government restrictions, organizational responses and sources of support, and anticipated future needs and intentions. These codes were tallied across market levels (lead and intermediary) and functions (value chain actors; supporting functions) to assess similarities and differences. Where possible, we compare between states to identify variation in COVID-19 impacts across geographic markets.

Market Actor Sample

The market actor qualitative sample totaled 50 interviews. Due to the nature of remote, snowball data collection, the sample consisted primarily of more prominent and easy-to-contact actors, focused primarily on lead actors (37), with a smaller group of intermediary actors (11), and only 2 local actors. The majority of lead actors worked across the entirety of the Northeast, or several states within it, representing the macro-system which is less affected by individualized or local shocks. Only 5-8 actors were unique to each of Adamawa, Borno, and Gombe, and only 1 actor, a transport company, was unique to Yobe.

Table 1: Market actor sample by state

	Multi-state		Adamawa		Borno		Gombe		Yobe	
	Private	Public	Private	Public	Private	Public	Private	Public	Private	Public
Lead	23	5	2	2	2	0	2	0	0	0
Intermediary	1	1	2	0	5	0	2	0	1	0
Local	0	0	0	0	1	0	1	0	0	0
Total	24	6	4	2	8	0	5	0	1	0

Quantitative methods

Sample selection

Since the pandemic and associated restrictions made in-person data collection impossible, we turned to pre-existing sample frames to draw respondents from. The RRA team compiled registration lists from previous Mercy Corps programming in the four states to create a universe of households in the four states who exhibited at least a moderate level of vulnerability. Within each state, respondents were selected

through stratified random sampling, with stratification by LGA and, where specified in registration lists, urban/rural status. While IDPs and female-headed households were considered more likely to be vulnerable to the pandemic and associated shocks, we did not stratify on these characteristics as they were not consistently recorded in all lists, and as the small sample size made further subdivision impractical.

Analysis

The assessment focuses on understanding households' status in the midst of the pandemic and associated restrictions, focusing on shock impacts, responses, and resilience outcomes. We use descriptive statistics to assess the full sample of households from the four states. We also examine the subsample of households from each state to identify vulnerable geographic areas. Quantitative analysis was conducted using Stata 16.

Household Sample

The properties of the household sample, totaling 368 completed surveys, are shown in **Table X** below. The replacement rate (substitution of a selected respondent due to incorrect or disconnected numbers) was high in all 4 states, with Gombe substantially higher than the other 3 at 76% of original respondents replaced. This can be expected using older phone lists, but nonetheless suggests a potential bias towards households that are either less shock affected, and therefore able to maintain their residence and phone number, or unable to migrate out of the region entirely. However, no respondents refused consent to complete the interview, and we therefore do not anticipate systematic bias due to trust in the government or NGO's.

The states differed in two key aspects. First, only 5% of the heads of household in Gombe were female, compared to 19 – 24% in the other three states – which likely reflects differences in the original participant lists, or response bias towards away from women-headed households due to the high number of replacements in Gombe. Second, only 13% of household heads in Adamawa identified as IDPs/refugees or returnees, while in Yobe 72% of household heads were IDPs/refugees or returnees.

Table 2: Household Sample Properties by State

		Adamawa	Borno	Gombe	Yobe
Respondent Types	Primary Respondent	45	45	16	48
		45%	46%	24%	46%
	Replacement Respondent	55	52	50	57
		55%	54%	76%	54%
	Replacement Rate	55%	54%	76%	54%
Completed Surveys	100	97	66	105	
Gender of HOH	Female HOH	23	14	3	24
		24%	19%	5%	24%
	Male HOH	73	61	62	78

		76%	81%	95%	76%
	Total: HOH Gender	96	75	65	102
Status of HOH	Host	71	64	50	22
		88%	69%	78%	29%
	IDP or Refugee	3	19	13	27
		4%	20%	20%	36%
	Returnee	7	10	1	27
		9%	11%	2%	36%
	Total: HOH status	81	93	64	76
Age of HOH	20 - 24	3	2	0	3
		3%	3%	0%	3%
	25 - 29	7	6	4	10
		7%	8%	6%	10%
	30 - 34	8	13	20	23
		8%	17%	31%	23%
	35 - 49	43	42	26	45
		45%	56%	40%	44%
	50 +	35	12	15	21
		36%	16%	23%	21%
Total: HOH age	96	75	65	102	
Household Size	Average	11.4	9.1	8.7	8.2
Household Age Composition	25% or less under 18	27	15	15	12
		27%	15%	23%	11%
	26 - 50% under 18	43	49	28	50
		43%	51%	42%	48%
	51 - 75% under 18	20	29	14	39

		20%	30%	21%	37%
	75% or more under 18	10	4	9	4
		10%	4%	14%	4%
IDP Composition of Household	No IDPs in HH	73	86	46	74
		73%	89%	70%	70%
	HH Hosting IDPs	23	11	15	19
		23%	11%	23%	18%
	IDP HH	4	0	5	12

The list of respondents by LGA is provided in **Table 2** below:

Table 2: Respondents by LGA

Adamawa	
Hong	74
Mayo Belwa	28
State Total	102
Borno	
Hawul	25
Kwayakusar	9
Biu	53
Mafa	7
State Total	94
Gombe	
Gombe Ydeba	38
Gombe	46
Balanga	2
Funakaye	5
State Total	91
Yobe	
Geidam	30
Damaturu	29
Gujba	40
Yunusari	8
State Total	107

Annex B: Economic Impacts – Full Results

		Full Sample		Adamawa		Borno		Gombe		Yobe	
	Variable Name	N	Mean	N	Mean	N	Mean	N	Mean	N	Mean
Government restrictions	Aware of government COVID restrictions	365	99%	100	100%	96	100%	65	100%	104	97%
	# Weeks ago restrictions began in area	362	4.18	100	4.62	96	4.27	65	5.02	101	3.12
Effects on income	Change in Household Income	368	-5879	100	-9397	97	-4966	66	-4046	105	-4523
	Change in Expenditure	368	-1655	100	-1434	97	-1063	66	-2376	105	-1959
	Change in Debt	368	4714	100	5756	97	9765	66	2664	105	345
Effect on farm activity labor	Change in male HH members conducting regular farm activities	258	-1.26	74	-1.95	75	-1.29	41	-0.71	68	-0.79
	Change in female HH members conducting regular farm activities	258	-0.72	74	-1.54	75	-0.63	41	-0.12	68	-0.29
	Change in male HH members conducting irregular farm activities	162	-1.25	37	-1.95	54	-1.02	32	-0.66	39	-1.38
	Change in female HH members conducting irregular farm activities	162	-0.46	37	-0.86	54	-0.35	32	-0.06	39	-0.56
Recovery of farm work in 1 month	Most or all male HH members expected to return	255	64%	81	70%	72	75%	41	66%	61	41%
	Most or all female HH members expected to return	255	37%	81	40%	72	51%	41	24%	61	25%
Farm activities conducting in a normal year	Dry season planting	255	13%	81	6%	72	13%	41	20%	61	16%
	Primary planting	255	77%	81	75%	72	74%	41	83%	61	79%
	Harvesting	255	9%	81	7%	72	3%	41	22%	61	11%
	Other	255	31%	81	32%	72	53%	41	10%	61	20%
	None	255	2%	81	4%	72	0%	41	0%	61	2%

Farm activities currently conducting	Dry season planting	255	12%	81	6%	72	11%	41	24%	61	11%
	Primary planting	255	62%	81	70%	72	49%	41	71%	61	61%
	Harvesting	255	9%	81	6%	72	3%	41	24%	61	11%
	Other	255	32%	81	28%	72	65%	41	10%	61	13%
	None	255	11%	81	9%	72	6%	41	7%	61	23%
Obstacles to working on farm activities in past 7 days	Movement Restrictions	283	71%	85	84%	81	65%	43	88%	74	54%
	Business Operations Closed	283	39%	85	41%	81	37%	43	51%	74	31%
	Government restrictions	283	33%	85	27%	81	43%	43	37%	74	26%
	Conflict Concerns	283	7%	85	1%	81	6%	43	2%	74	19%
	Inability to Obtain Inputs	283	17%	85	8%	81	15%	43	35%	74	20%
	Other	283	16%	85	12%	81	16%	43	2%	74	28%
Input availability challenges	Available, Price Too High	49	73%	7	71%	12	83%	15	73%	15	67%
	Available, Supply Limited	49	12%	7	14%	12	17%	15	13%	15	7%
	Not Available	49	12%	7	0%	12	0%	15	13%	15	27%
Obstacles preventing farm activities during COVID-19	Unable to Travel/Work Outside	256	43%	78	46%	78	45%	40	53%	60	32%
	Unable to Hire	256	20%	78	13%	78	22%	40	45%	60	10%
	Inputs Unavailable	256	20%	78	22%	78	17%	40	23%	60	18%
	Inputs Too Expensive	256	49%	78	29%	78	49%	40	83%	60	52%
	Other	256	6%	78	6%	78	8%	40	5%	60	5%
Obstacles preventing farm activities in previous years	Unable to Travel/Work Outside	283	11%	85	5%	81	5%	43	21%	74	19%
	Unable to Hire	283	16%	85	14%	81	14%	43	16%	74	22%
	Inputs Unavailable	283	15%	85	8%	81	16%	43	23%	74	18%
	Inputs Too Expensive	283	33%	85	22%	81	35%	43	30%	74	46%
	None	283	36%	85	42%	81	38%	43	44%	74	23%

Effect on off-farm activity labor	Change in male HH members conducting regular off-farm activities	168	-0.93	40	-1.68	52	-0.77	39	-0.49	37	-0.84
	Change in female HH members conducting regular off-farm activities	168	-0.54	40	-0.95	52	-0.40	39	-0.46	37	-0.38
	Change in male HH members conducting irregular off-farm activities	96	-0.42	18	0.06	34	-0.32	29	-0.79	15	-0.47
	Change in female HH members conducting irregular off-farm activities	96	-0.07	18	0.11	34	-0.09	29	-0.31	15	0.20
Recovery of off-farm work in 1 month	Most or all HH members expected to return	114	66%	30	67%	29	62%	25	68%	30	67%
Obstacles preventing work in off-farm activities, past 7 days	Movement Restrictions	244	65%	57	82%	63	52%	48	88%	76	49%
	Business Operations Closed	244	51%	57	63%	63	41%	48	73%	76	37%
	Government restrictions	244	38%	57	40%	63	38%	48	46%	76	32%
	Conflict Concerns	244	7%	57	2%	63	5%	48	4%	76	14%
	Inability to Obtain Inputs	244	20%	57	12%	63	25%	48	25%	76	17%
	Other	244	4%	57	2%	63	5%	48	2%	76	7%
Input availability challenges	Available, Price too high	48	0%	7	0%	16	0%	12	0%	13	0%
	Available, Supply Limited	48	25%	7	29%	16	25%	12	25%	13	23%
	Not Available	48	4%	7	0%	16	0%	12	0%	13	15%

Annex C: Differential Vulnerability Analysis

Household Results by IDP Status of Head of Household

Group	Variable Name	N (Full Sample)	Mean (Full Sample)	N (Host)	Mean (Host)	N (IDP or Refugee)	Mean (IDP or Refugee)	N (Returnee)	Mean (Returnee)
Shop functionality	Local shop open	308	95%	207	96%	62	94%	39	97%
	Other shops open	308	95%	207	96%	62	92%	39	100%
Food products purchased in past 7 days	Tubers/grains/cereals	308	93%	207	93%	62	94%	39	87%
	Legumes/nuts	308	70%	207	62%	62	87%	39	85%
	Vegetables/fruit	308	64%	207	61%	62	66%	39	72%
	Meat/fish	308	41%	207	41%	62	27%	39	64%
	Milk/dairy	308	14%	207	11%	62	23%	39	13%
	Condiments	308	62%	207	52%	62	77%	39	92%
	Other	308	0%	207	0%	62	0%	39	0%
	None	308	1%	207	1%	62	0%	39	0%
Location of purchase	Purchased in community	308	89%	207	89%	62	85%	39	95%
Change in food prices	Decreased/Remained Same	308	1%	207	0%	62	2%	39	0%
	Mixed increase and decrease	308	6%	207	6%	62	8%	39	8%
	Increased	308	91%	207	91%	62	89%	39	92%
Food products available before	Tubers/grains/cereals	308	38%	207	34%	62	55%	39	33%
	Legumes/nuts	308	20%	207	20%	62	23%	39	18%

Covid-19 but not currently available	Vegetables/fruit	308	17%	207	16%	62	23%	39	13%
	Meat/fish	308	20%	207	19%	62	29%	39	13%
	Milk/dairy	308	14%	207	14%	62	15%	39	13%
	Condiments	308	27%	207	25%	62	31%	39	33%
	Other	308	0%	207	0%	62	0%	39	0%
	None	308	42%	207	44%	62	31%	39	49%
Government restrictions	Aware of government COVID restrictions	306	99%	206	100%	62	98%	38	97%
	# Weeks ago restrictions began in area	304	438%	206	4.47	61	4.39	37	3.86
Change in purchasing habits	Deceased	308	41%	207	40%	62	35%	39	54%
	About the Same	308	0%	207	0%	62	0%	39	0%
	Increased	308	43%	207	41%	62	52%	39	38%

	Variable Name	N (Full Sample)	Mean (Full Sample)	N (Host)	Mean (Host)	N (IDP or Refugee)	Mean (IDP or Refugee)	N (Returnee)	Mean (Returnee)
Effects on income	Change in Household Income	308	- 5473.54	207	- 5939.37	62	- 5209.68	39	- 3420.51
	Change in Expenditure	308	- 1223.68	207	- 1082.58	62	- 2524.19	39	94.87
	Change in Debt	308	3821.27	207	3549.52	62	1785.48	39	8500.00
	HH income, farm or off-farm activities	332	2.86	227	2.73	65	3.28	40	2.88

Effect on farm activity labor	Change in male HH members conducting regular farm activities	224	-1.29	163	-1.29	35	-1.57	26	-0.92
	Change in female HH members conducting regular farm activities	224	-0.70	163	-0.80	35	-0.40	26	-0.46
	Change in male HH members conducting irregular farm activities	149	-1.27	106	-1.21	23	-1.83	20	-0.95
	Change in female HH members conducting irregular farm activities	149	-0.42	106	-0.48	23	-0.26	20	-0.30
Most or all HH members expected to return to farm activities in 1 month	Male, Most or All	213	0.62	154	0.62	34	0.56	25	0.72
	Female, Most or all	213	0.37	154	0.37	34	0.29	25	0.48
Farm activities conducting in a normal year	Dry season planting	213	0.11	154	0.12	34	0.09	25	0.08
	Primary planting	213	0.80	154	0.77	34	0.79	25	0.96
	Harvesting	213	0.10	154	0.10	34	0.15	25	0.08
	Other	213	0.30	154	0.30	34	0.41	25	0.16
	None	213	0.01	154	0.01	34	0.03	25	0.00
Farm activities currently conducting	Dry season planting	213	0.11	154	0.12	34	0.09	25	0.08
	Primary planting	213	0.65	154	0.66	34	0.62	25	0.68
	Harvesting	213	0.10	154	0.10	34	0.12	25	0.08
	Other	213	0.33	154	0.32	34	0.47	25	0.16

	None	213	0.10	154	0.07	34	0.12	25	0.24
Obstacles to working on farm activities in past 7 days	Movement Restrictions	231	0.71	167	0.76	36	0.67	28	0.43
	Business Operations Closed	231	0.37	167	0.40	36	0.31	28	0.29
	Government Restrictions	231	0.34	167	0.37	36	0.42	28	0.07
	Conflict Concerns	231	0.07	167	0.05	36	0.11	28	0.11
	Inability to Obtain Inputs	231	0.19	167	0.17	36	0.28	28	0.21
	Other	231	0.18	167	0.13	36	0.25	28	0.39
Input availability challenges	Available, Price Too High	44	0.77	28	0.82	10	0.50	6	1.00
	Available, Supply Limited	44	0.11	28	0.14	10	0.10	6	0.00
	Not Available	44	0.09	28	0.00	10	0.40	6	0.00
Obstacles preventing farm activities during COVID-19	Unable to Travel/Work Outside	211	0.43	155	0.45	32	0.38	24	0.38
	Unable to Hire	211	0.22	155	0.21	32	0.31	24	0.17
	Inputs Unavailable	211	0.18	155	0.19	32	0.25	24	0.08
	Inputs Too Expensive	211	0.50	155	0.50	32	0.53	24	0.50
	Other	211	0.05	155	0.05	32	0.06	24	0.04
Obstacles preventing farm activities in previous years	Unable to Travel/Work Outside	231	0.09	167	0.08	36	0.11	28	0.11
	Unable to Hire	231	0.16	167	0.13	36	0.31	28	0.18
	Inputs Unavailable	231	0.13	167	0.15	36	0.11	28	0.07
	Inputs Too Expensive	231	0.29	167	0.27	36	0.39	28	0.32
	None	231	0.45	167	0.46	36	0.36	28	0.50

Effect on off-farm activity labor	Change in male HH members conducting regular off-farm activities	167	-0.95	103	-1.04	34	-0.74	30	-0.87
	Change in female HH members conducting regular off-farm activities	167	-0.55	103	-0.66	34	-0.18	30	-0.60
	Change in male HH members conducting irregular off-farm activities	96	-0.42	58	-0.48	21	-0.24	17	-0.41
	Change in female HH members conducting irregular off-farm activities	96	-0.07	58	-0.28	21	0.38	17	0.06
Most HH members expected to return to off-farm work in 1 month	Most or all	114	0.66	69	0.71	23	0.52	22	0.64
Obstacles preventing work in off-farm activities, past 7 days	Movement Restrictions	209	0.64	129	0.70	48	0.56	32	0.50
	Business Operations Closed	209	0.52	129	0.58	48	0.52	32	0.25
	Government Restrictions	209	0.38	129	0.38	48	0.42	32	0.34
	Conflict Concerns	209	0.07	129	0.03	48	0.13	32	0.13
	Inability to Obtain Inputs	209	0.19	129	0.18	48	0.21	32	0.22
	Other	209	0.04	129	0.02	48	0.06	32	0.06
Input availability	Available, Price too high	40	0.00	23	0.00	10	0.00	7	0.00

y challenges	Available, Supply Limited	40	0.28	23	0.26	10	0.20	7	0.43
	Not Available	40	0.03	23	0.00	10	0.10	7	0.00

Group	Variable Name	N (Full Sample)	Mean (Full Sample)	N (Host)	Mean (Host)	N (IDP or Refugee)	Mean (IDP or Refugee)	N (Returnee)	Mean (Returnee)
HH affected by other shocks in past month	Conflict/Armed Groups	308	0.29	207	0.21	62	0.48	39	0.36
	Forced Migration/Government Orders	308	0.03	207	0.00	62	0.10	39	0.05
	Drought	308	0.04	207	0.03	62	0.06	39	0.05
	Flooding/Excess Rain	308	0.09	207	0.10	62	0.10	39	0.05
	Illness	308	0.19	207	0.19	62	0.29	39	0.05
	Other	308	0.60	207	0.62	62	0.48	39	0.69
	Only COVID	308	0.56	207	0.59	62	0.39	39	0.64
Impact of other shocks on HH in past month	Restricted Movement	187	0.57	127	0.51	43	0.72	17	0.59
	Unable to Access Market	187	0.38	127	0.28	43	0.60	17	0.59
	Unable to Obtain Food	187	0.34	127	0.23	43	0.56	17	0.59
	Unable to Generate Income	187	0.60	127	0.57	43	0.67	17	0.71
	Other	187	0.12	127	0.14	43	0.07	17	0.06

	Variable Name	N (Full Sample)	Mean (Full Sample)	N (Host)	Mean (Host)	N (IDP or Refugee)	Mean (IDP or Refugee)	N (Returnee)	Mean (Returnee)
Food security coping strategies	Used less preferred or less expensive foods	308	51%	207	44%	62	68%	39	64%
	Purchased on credit	308	54%	207	49%	62	69%	39	54%
	Limited portion size or skipped meals	308	40%	207	36%	62	58%	39	28%
	Restricted consumption by non-working HH members to feed those working	308	5%	207	4%	62	8%	39	5%
	Consumed stored seeds	308	12%	207	12%	62	11%	39	10%
	Sold productive assets	308	17%	207	16%	62	21%	39	13%
	Taken children out of school	308	6%	207	6%	62	8%	39	3%
	Taken financial or material support from family or neighbors	308	36%	207	39%	62	27%	39	33%
	Taken financial support from bank	308	3%	207	3%	62	3%	39	0%
	Taken financial support from other source	308	6%	207	7%	62	5%	39	5%
	Sent HH member to eat at other house	308	6%	207	4%	62	11%	39	5%
	Had HH member migrate	308	1%	207	1%	62	0%	39	0%
Financial coping	Loan from Financial Institution	308	3%	207	3%	62	3%	39	3%

strategies used in past month	Loan/Saving Association	308	7%	207	7%	62	11%	39	3%
	Borrowed from Friends/Family	308	54%	207	45%	62	68%	39	77%
	Borrowed from Shopkeeper/Community Member	308	44%	207	38%	62	60%	39	51%
	Withdrew Savings	308	16%	207	17%	62	18%	39	3%
	None	308	19%	207	24%	62	8%	39	13%
	Other	308	5%	207	6%	62	3%	39	3%
Change in sources of finance	Borrowed from Source Previously	229	0.68	140	0.66	56	0.66	33	0.76
Debt	Amount of HH Debt 1 Month Ago	308	18418.34	207	15370.29	62	25933.87	39	22648.72
	Current HH Debt	308	22239.61	207	18919.81	62	27719.35	39	31148.72
	Change in Debt	308	3821.27	207	3549.52	62	1785.48	39	8500.00
Sources of support in past 7 days	Local Government	308	0.02	207	0.02	62	0.00	39	0.03
	Community Organization	308	0.01	207	0.01	62	0.00	39	0.03
	Friends/Family/Neighbors	308	0.19	207	0.14	62	0.37	39	0.15
	International NGOs	308	0.05	207	0.01	62	0.06	39	0.23
	None	308	0.74	207	0.81	62	0.60	39	0.62
	Other	308	0.01	207	0.02	62	0.00	39	0.00
	Financial Support	79	0.48	39	0.33	25	0.64	15	0.60

Type of support received in past 7 days	In-Kind Support	79	0.75	39	0.79	25	0.80	15	0.53
	Material Support	79	0.01	39	0.03	25	0.00	15	0.00
	Other	79	0.04	39	0.08	25	0.00	15	0.00
Received support from source before restrictions	Received Support Before Restrictions	79	0.47	39	0.49	25	0.48	15	0.40

Group	Variable Name	N (Full Sample)	Mean (Full Sample)	N (Host)	Mean (Host)	N (IDP or Refugee)	Mean (IDP or Refugee)	N (Returnee)	Mean (Returnee)
Informed on Covid	Feel Informed re: COVID Symptoms & Prevention	308	0.97	207	0.99	62	0.94	39	0.92
Source of information on COVID	Government Announcement	308	0.27	207	0.27	62	0.34	39	0.18
	News	308	0.85	207	0.85	62	0.82	39	0.87
	Friends	308	0.52	207	0.49	62	0.58	39	0.59
	Local Leaders	308	0.25	207	0.26	62	0.31	39	0.10
	Internet	308	0.21	207	0.22	62	0.24	39	0.15
	Other	308	0.05	207	0.02	62	0.10	39	0.08

Household Results by Gender of Head of Household

Group	Variable Name	N (Full Sample)	Mean (Full Sample)	N (Female HOH)	Mean (Female HOH)	N (Male HOH)	Mean (Male HOH)
	Local shop open	370	95%	64	95%	275	96%

Shop functionality	Other shops open	370	95%	64	97%	275	96%
Food products purchased in past 7 days	Tubers/grains/cereals	370	91%	64	94%	275	91%
	Legumes/nuts	370	69%	64	59%	275	71%
	Vegetables/fruit	370	61%	64	52%	275	63%
	Meat/fish	370	41%	64	44%	275	41%
	Milk/dairy	370	14%	64	8%	275	14%
	Condiments	370	62%	64	77%	275	61%
	Other	370	0%	64	0%	275	0%
	None	370	1%	64	2%	275	0%
Location of purchase	Purchased in community	370	88%	64	92%	275	88%
Change in food prices	Decreased/Remained Same	370	1%	64	0%	275	1%
	Mixed increase and decrease	370	7%	64	8%	275	7%
	Increased	370	91%	64	91%	275	90%
Food products available before Covid-19 but not currently available	Tubers/grains/cereals	370	42%	64	42%	275	41%
	Legumes/nuts	370	24%	64	20%	275	23%
	Vegetables/fruit	370	20%	64	19%	275	18%
	Meat/fish	370	26%	64	22%	275	25%
	Milk/dairy	370	18%	64	23%	275	15%
	Condiments	370	33%	64	42%	275	30%
	Other	370	0%	64	0%	275	0%
	None	370	35%	64	33%	275	37%
Government restrictions	Aware of government COVID restrictions	365	99%	64	98%	272	99%

	# Weeks ago restrictions began in area	362	4.18	63	4.25	270	4.21
Change in purchasing habits	Deceased	370	41%	64	41%	275	40%
	About the Same	370	0%	64	0%	275	0%
	Increased	370	42%	64	42%	275	44%

	Variable Name	N (Full Sample)	Mean (Full Sample)	N (Female HOH)	Mean (Female HOH)	N (Male HOH)	Mean (Male HOH)
Effects on income	Change in Household Income	338	-5956.66	64	-7071.88	274	-5696.17
	Change in Expenditure	338	-1553.11	64	-564.16	274	-1784.10
	Change in Debt	338	4608.53	64	1050.00	274	5439.72
	HH income, farm or off-farm activities	342	2.87	65	2.95	277	2.85
Effect on farm activity labor	Change in male HH members conducting regular farm activities	243	-1.19	45	-1.11	198	-1.21
	Change in female HH members conducting regular farm activities	243	-0.68	45	-1.04	198	-0.60
	Change in male HH members conducting irregular farm activities	150	-1.29	29	-0.52	121	-1.47
	Change in female HH members conducting irregular farm activities	150	-0.45	29	-0.52	121	-0.43
Most or all HH members expected to return to farm	Male, Most or All	237	0.63	40	0.75	197	0.61
	Female, Most or all	237	0.35	40	0.48	197	0.33

activities in 1 month							
Farm activities conducting in a normal year	Dry season planting	237	0.13	40	0.08	197	0.14
	Primary planting	237	0.77	40	0.88	197	0.75
	Harvesting	237	0.09	40	0.10	197	0.09
	Other	237	0.30	40	0.30	197	0.30
	None	237	0.02	40	0.05	197	0.01
Farm activities currently conducting	Dry season planting	237	0.12	40	0.05	197	0.13
	Primary planting	237	0.63	40	0.70	197	0.61
	Harvesting	237	0.09	40	0.10	197	0.09
	Other	237	0.30	40	0.40	197	0.28
	None	237	0.12	40	0.08	197	0.13
Obstacles to working on farm activities in past 7 days	Movement Restrictions	264	0.71	47	0.66	217	0.72
	Business Operations Closed	264	0.39	47	0.36	217	0.40
	Government Restrictions	264	0.32	47	0.32	217	0.32
	Conflict Concerns	264	0.07	47	0.00	217	0.09
	Inability to Obtain Inputs	264	0.17	47	0.19	217	0.17
	Other	264	0.15	47	0.21	217	0.14
Input availability challenges	Available, Price Too High	46	0.74	9	0.78	37	0.73
	Available, Supply Limited	46	0.11	9	0.00	37	0.14
	Not Available	46	0.13	9	0.11	37	0.14

Obstacles preventing farm activities during COVID-19	Unable to Travel/Work Outside	237	0.43	44	0.45	193	0.42
	Unable to Hire	237	0.21	44	0.25	193	0.20
	Inputs Unavailable	237	0.19	44	0.18	193	0.19
	Inputs Too Expensive	237	0.49	44	0.52	193	0.49
	Other	237	0.05	44	0.00	193	0.07
Obstacles preventing farm activities in previous years	Unable to Travel/Work Outside	264	0.11	47	0.11	217	0.12
	Unable to Hire	264	0.16	47	0.19	217	0.16
	Inputs Unavailable	264	0.14	47	0.19	217	0.13
	Inputs Too Expensive	264	0.33	47	0.21	217	0.35
	None	264	0.38	47	0.45	217	0.36
Effect on off-farm activity labor	Change in male HH members conducting regular off-farm activities	160	-0.94	33	-0.85	127	-0.97
	Change in female HH members conducting regular off-farm activities	160	-0.60	33	-0.73	127	-0.57
	Change in male HH members conducting irregular off-farm activities	90	-0.41	18	-0.11	72	-0.49
	Change in female HH members conducting irregular off-farm activities	90	-0.12	18	0.11	72	-0.18

Most HH members expected to return to off-farm work in 1 month	Most or all	108	0.67	23	0.65	85	0.67
Obstacles preventing work in off-farm activities, past 7 days	Movement Restrictions	229	0.65	44	0.66	185	0.65
	Business Operations Closed	229	0.52	44	0.50	185	0.52
	Government Restrictions	229	0.38	44	0.43	185	0.36
	Conflict Concerns	229	0.07	44	0.09	185	0.06
	Inability to Obtain Inputs	229	0.19	44	0.23	185	0.18
	Other	229	0.04	44	0.05	185	0.04
Input availability challenges	Available, Price too high	43	0.00	10	0.00	33	0.00
	Available, Supply Limited	43	0.23	10	0.20	33	0.24
	Not Available	43	0.05	10	0.10	33	0.03

Group	Variable Name	N (Full Sample)	Mean (Full Sample)	N (Female HOH)	Mean (Female HOH)	N (Male HOH)	Mean (Male HOH)
HH affected by other shocks in past month	Conflict/Armed Groups	338	0.30	64	0.33	274	0.30
	Forced Migration/Government Orders	338	0.03	64	0.06	274	0.03
	Drought	338	0.04	64	0.03	274	0.04
	Flooding/Excess Rain	338	0.11	64	0.09	274	0.11

	Illness	338	0.18	64	0.11	274	0.20
	Other	338	0.57	64	0.59	274	0.57
	Only COVID	338	0.50	64	0.52	274	0.50
Impact of other shocks on HH in past month	Restricted Movement	223	0.52	40	0.50	183	0.53
	Unable to Access Market	223	0.34	40	0.48	183	0.31
	Unable to Obtain Food	223	0.30	40	0.40	183	0.28
	Unable to Generate Income	223	0.53	40	0.50	183	0.54
	Other	223	0.16	40	0.18	183	0.16

	Variable Name	N (Full Sample)	Mean (Full Sample)	N (Female HOH)	Mean (Female HOH)	N (Male HOH)	Mean (Male HOH)
Food security coping strategies	Used less preferred or less expensive foods	339	0.50	64	38%	275	53%
	Purchased on credit	339	0.53	64	50%	275	53%
	Limited portion size or skipped meals	339	0.38	64	34%	275	39%
	Restricted consumption by non-working HH members to feed those working	339	0.03	64	2%	275	4%
	Consumed stored seeds	339	0.12	64	9%	275	12%
	Sold productive assets	339	0.14	64	13%	275	15%
	Taken children out of school	339	0.05	64	2%	275	6%
	Taken financial or material support from family or neighbors	339	0.33	64	25%	275	35%

	Taken financial support from bank	339	0.02	64	0%	275	2%
	Taken financial support from other source	339	0.05	64	2%	275	6%
	Sent HH member to eat at other house	339	0.05	64	5%	275	5%
	Had HH member migrate	339	0.01	64	2%	275	0%
Financial coping strategies used in past month	Loan from Financial Institution	338	0.02	64	0%	274	3%
	Loan/Saving Association	338	0.06	64	5%	274	6%
	Borrowed from Friends/Family	338	0.55	64	55%	274	55%
	Borrowed from Shopkeeper/Community Member	338	0.44	64	41%	274	45%
	Withdrew Savings	338	0.14	64	9%	274	15%
	None	338	0.17	64	22%	274	16%
	Other	338	0.07	64	6%	274	7%
Change in sources of finance	Borrowed from Source Previously	249	0.67	43	0.72	206	0.66
Debt	Amount of HH Debt 1 Month Ago	338	17655.77	64	13531.25	274	18619.16
	Current HH Debt	338	22264.30	64	14581.25	274	24058.88
	Change in Debt	338	4608.53	64	1050.00	274	5439.72
Sources of support in past 7 days	Local Government	338	0.01	64	0.03	274	0.01
	Community Organization	338	0.01	64	0.02	274	0.01
	Friends/Family/Neighbors	338	0.19	64	0.14	274	0.20
	International NGOs	338	0.06	64	0.09	274	0.05

	None	338	0.73	64	0.77	274	0.73
	Other	338	0.01	64	0.00	274	0.02
Type of support received in past 7 days	Financial Support	90	0.48	15	0.33	75	0.51
	In-Kind Support	90	0.73	15	0.87	75	0.71
	Material Support	90	0.01	15	0.00	75	0.01
	Other	90	0.03	15	0.00	75	0.04
Received support from source before restrictions	Received Support Before Restrictions	90	0.49	15	0.40	75	0.51

Group	Variable Name	N (Full Sample)	Mean (Full Sample)	N (Female HOH)	Mean (Female HOH)	N (Male HOH)	Mean (Male HOH)
Informed on Covid	Feel Informed re: COVID Symptoms & Prevention	338	0.96	64	0.95	274	0.96
Source of information on COVID	Government Announcement	338	0.26	64	0.09	274	0.30
	News	338	0.85	64	0.81	274	0.86
	Friends	338	0.51	64	0.61	274	0.49
	Local Leaders	338	0.25	64	0.22	274	0.26
	Internet	338	0.22	64	0.13	274	0.24
	Other	338	0.03	64	0.03	274	0.03

Household Results by Age Composition of Household

Group	Variable Name	N (Full Sample)	Mean (Full Sample)	N (25% or less)	Mean (25% or less)	N (26 - 50% of HH)	Mean (26 - 50% of HH)	N (51 - 75% of HH)	Mean (51 - 75% of HH)	N (75% or more)	Mean (75% or more)
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			Sample)	of HH unde r 18)	less of HH unde r 18)	unde r 18)	HH unde r 18)	unde r 18)	HH unde r 18)	of HH unde r 18)	more of HH unde r 18)
Shop functionalit Y	Local shop open	370	0.95	70	0.93	170	0.95	103	0.94	27	1.00
	Other shops open	370	0.95	70	0.94	170	0.95	103	0.97	27	0.96
Food products purchased in past 7 days	Tubers/grains/cere als	370	0.91	70	0.89	170	0.89	103	0.95	27	0.96
	Legumes/nuts	370	0.69	70	0.66	170	0.66	103	0.75	27	0.70
	Vegetables/fruit	370	0.61	70	0.59	170	0.60	103	0.71	27	0.41
	Meat/fish	370	0.41	70	0.43	170	0.38	103	0.44	27	0.37
	Milk/dairy	370	0.14	70	0.17	170	0.11	103	0.18	27	0.07
	Condiments	370	0.62	70	0.60	170	0.62	103	0.71	27	0.33
	Other	370	0.00	70	0.00	170	0.00	103	0.00	27	0.00
	None	370	0.01	70	0.01	170	0.01	103	0.00	27	0.00
Location of purchase	Purchased in community	370	0.88	70	0.90	170	0.89	103	0.86	27	0.85
Change in food prices	Decreased/Remain ed Same	370	0.01	70	0.00	170	0.01	103	0.01	27	0.00
	Mixed increase and decrease	370	0.07	70	0.07	170	0.07	103	0.08	27	0.00
	Increased	370	0.91	70	0.89	170	0.91	103	0.91	27	0.93
Food products available before Covid-19 but not currently available	Tubers/grains/cere als	370	0.42	70	0.47	170	0.42	103	0.41	27	0.37
	Legumes/nuts	370	0.24	70	0.33	170	0.22	103	0.22	27	0.22
	Vegetables/fruit	370	0.20	70	0.24	170	0.22	103	0.16	27	0.19
	Meat/fish	370	0.26	70	0.29	170	0.27	103	0.26	27	0.19
	Milk/dairy	370	0.18	70	0.21	170	0.19	103	0.18	27	0.07
	Condiments	370	0.33	70	0.30	170	0.35	103	0.32	27	0.33
	Other	370	0.00	70	0.00	170	0.00	103	0.00	27	0.00

	None	370	0.35	70	0.36	170	0.37	103	0.31	27	0.33
Government restrictions	Aware of government COVID restrictions	365	0.99	69	1.00	168	0.99	101	0.98	27	1.00
	# Weeks ago restrictions began in area	362	4.18	69	4.25	167	4.24	99	3.96	27	4.44
Change in purchasing habits	Deceased	370	0.41	70	0.40	170	0.50	103	0.32	27	0.26
	About the Same	370	0.00	70	0.00	170	0.00	103	0.00	27	0.00
	Increased	370	0.42	70	0.41	170	0.37	103	0.50	27	0.44

	Variable Name	N (Full Sample)	Mean (Full Sample)	N (25% or less of HH under 18)	Mean (25% or less of HH under 18)	N (26 - 50% of HH under 18)	Mean (26 - 50% of HH under 18)	N (51 - 75% of HH under 18)	Mean (51 - 75% of HH under 18)	N (75% or more of HH under 18)	Mean (75% or more of HH under 18)
Effects on income	Change in Household Income	368	-5878.67	69	-5533.33	170	-7195.00	102	-5120.59	27	-1337.04
	Change in Expenditure	368	-1655.03	69	-1640.67	170	-2749.12	102	277.45	27	-2103.48
	Change in Debt	368	4714.36	69	3348.55	170	4679.61	102	5259.80	27	6362.96
	HH income, farm or off-farm activities	370	2.93	70	2.91	170	2.88	103	3.09	27	2.70
Effect on farm activity labor	Change in male HH members conducting regular farm activities	258	-1.26	52	-1.29	124	-1.30	62	-1.27	20	-0.85
	Change in female HH members conducting regular farm activities	258	-0.72	52	-0.63	124	-0.83	62	-0.45	20	-1.10

	Change in male HH members conducting irregular farm activities	162	-1.25	36	-0.72	77	-1.29	37	-1.92	12	-0.50
	Change in female HH members conducting irregular farm activities	162	-0.46	36	-0.44	77	-0.61	37	-0.30	12	-0.08
Most or all HH members expected to return to farm activities in 1 month	Male, Most or All	255	0.64	55	0.73	114	0.66	65	0.60	21	0.43
	Female, Most or all	255	0.37	55	0.38	114	0.36	65	0.38	21	0.33
Farm activities conducting in a normal year	Dry season planting	255	0.13	55	0.09	114	0.13	65	0.11	21	0.24
	Primary planting	255	0.77	55	0.84	114	0.79	65	0.69	21	0.71
	Harvesting	255	0.09	55	0.13	114	0.10	65	0.06	21	0.10
	Other	255	0.31	55	0.29	114	0.27	65	0.38	21	0.38
	None	255	0.02	55	0.04	114	0.02	65	0.00	21	0.00
Farm activities currently conducting	Dry season planting	255	0.12	55	0.11	114	0.12	65	0.05	21	0.33
	Primary planting	255	0.62	55	0.67	114	0.67	65	0.46	21	0.71
	Harvesting	255	0.09	55	0.09	114	0.10	65	0.08	21	0.14
	Other	255	0.32	55	0.35	114	0.31	65	0.37	21	0.19
	None	255	0.11	55	0.11	114	0.06	65	0.20	21	0.10
Obstacles to working on farm activities in past 7 days	Movement Restrictions	283	0.71	56	0.73	134	0.68	71	0.70	22	0.91
	Business Operations Closed	283	0.39	56	0.30	134	0.39	71	0.45	22	0.41
	Government Restrictions	283	0.33	56	0.30	134	0.31	71	0.32	22	0.50
	Conflict Concerns	283	0.07	56	0.05	134	0.10	71	0.06	22	0.00

	Inability to Obtain Inputs	283	0.17	56	0.21	134	0.17	71	0.17	22	0.09
	Other	283	0.16	56	0.09	134	0.18	71	0.21	22	0.05
Input availability challenges	Available, Price Too High	49	0.73	12	0.83	23	0.78	12	0.58	2	0.50
	Available, Supply Limited	49	0.12	12	0.00	23	0.17	12	0.08	2	0.50
	Not Available	49	0.12	12	0.17	23	0.00	12	0.33	2	0.00
Obstacles preventing farm activities during COVID-19	Unable to Travel/Work Outside	256	0.43	52	0.50	126	0.42	58	0.40	20	0.45
	Unable to Hire	256	0.20	52	0.23	126	0.18	58	0.19	20	0.25
	Inputs Unavailable	256	0.20	52	0.19	126	0.20	58	0.19	20	0.20
	Inputs Too Expensive	256	0.49	52	0.48	126	0.53	58	0.36	20	0.60
	Other	256	0.06	52	0.08	126	0.06	58	0.07	20	0.00
Obstacles preventing farm activities in previous years	Unable to Travel/Work Outside	283	0.11	56	0.05	134	0.11	71	0.13	22	0.18
	Unable to Hire	283	0.16	56	0.14	134	0.17	71	0.17	22	0.14
	Inputs Unavailable	283	0.15	56	0.14	134	0.11	71	0.20	22	0.27
	Inputs Too Expensive	283	0.33	56	0.25	134	0.40	71	0.30	22	0.27
	None	283	0.36	56	0.41	134	0.34	71	0.37	22	0.41
Effect on off-farm activity labor	Change in male HH members conducting regular off-farm activities	168	-0.93	28	-0.86	78	-0.76	46	-1.09	16	-1.50
	Change in female HH members conducting regular off-farm activities	168	-0.54	28	-0.43	78	-0.54	46	-0.43	16	-1.06
	Change in male HH members conducting	96	-0.42	16	-0.19	47	-0.15	25	-1.28	8	0.25

	irregular off-farm activities										
	Change in female HH members conducting irregular off-farm activities	96	-0.07	16	-0.06	47	-0.15	25	0.08	8	-0.13
Most HH members expected to return to off-farm work in 1 month	Most or all	114	0.66	18	0.72	51	0.65	33	0.70	12	0.50
Obstacles preventing work in off-farm activities, past 7 days	Movement Restrictions	244	0.65	37	0.76	114	0.63	72	0.57	21	0.86
	Business Operations Closed	244	0.51	37	0.73	114	0.46	72	0.50	21	0.43
	Government Restrictions	244	0.38	37	0.43	114	0.36	72	0.39	21	0.38
	Conflict Concerns	244	0.07	37	0.03	114	0.10	72	0.06	21	0.05
	Inability to Obtain Inputs	244	0.20	37	0.08	114	0.23	72	0.22	21	0.14
	Other	244	0.04	37	0.00	114	0.05	72	0.04	21	0.05
Input availability challenges	Available, Price too high	48	0.00	3	0.00	26	0.00	16	0.00	3	0.00
	Available, Supply Limited	48	0.25	3	0.00	26	0.23	16	0.25	3	0.67
	Not Available	48	0.04	3	0.00	26	0.04	16	0.06	3	0.00

Group	Variable Name	N (Full Sample)	Mean (Full Sample)	N (25% or less of HH)	Mean (25% or less of HH)	N (26 - 50% of HH under 18)	Mean (26 - 50% of HH)	N (51 - 75% of HH under 18)	Mean (51 - 75% of HH)	N (75% or more of HH)	Mean (75% or more of HH)
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				unde r 18)	unde r 18)		unde r 18)		unde r 18)	unde r 18)	unde r 18)
HH affected by other shocks in past month	Conflict/Armed Groups	368	0.30	69	0.20	170	0.33	102	0.30	27	0.37
	Forced Migration/Government Orders	368	0.03	69	0.01	170	0.03	102	0.06	27	0.00
	Drought	368	0.04	69	0.01	170	0.06	102	0.05	27	0.00
	Flooding/Excess Rain	368	0.10	69	0.10	170	0.11	102	0.09	27	0.11
	Illness	368	0.18	69	0.16	170	0.18	102	0.17	27	0.33
	Other	368	0.57	69	0.67	170	0.55	102	0.60	27	0.41
	Only COVID	368	0.50	69	0.55	170	0.49	102	0.54	27	0.33
Impact of other shocks on HH in past month	Restricted Movement	247	0.54	44	0.39	119	0.54	64	0.67	20	0.45
	Unable to Access Market	247	0.36	44	0.34	119	0.35	64	0.47	20	0.10
	Unable to Obtain Food	247	0.31	44	0.27	119	0.30	64	0.38	20	0.20
	Unable to Generate Income	247	0.54	44	0.45	119	0.54	64	0.52	20	0.80
	Other	247	0.15	44	0.23	119	0.13	64	0.19	20	0.05

	Variable Name	N (Full Sample)	Mean (Full Sample)	N (25% or less of HH under 18)	Mean (25% or less of HH under 18)	N (26 - 50% of HH under 18)	Mean (26 - 50% of HH under 18)	N (51 - 75% of HH under 18)	Mean (51 - 75% of HH under 18)	N (75% or more of HH under 18)	Mean (75% or more of HH under 18)

Food security coping strategies	Used less preferred or less expensive foods	370	0.51	70	0.34	170	0.55	103	0.58	27	0.44
	Purchased on credit	370	0.52	70	0.54	170	0.55	103	0.52	27	0.33
	Limited portion size or skipped meals	370	0.39	70	0.29	170	0.45	103	0.40	27	0.30
	Restricted consumption by non-working HH members to feed those working	370	0.05	70	0.00	170	0.08	103	0.05	27	0.00
	Consumed stored seeds	370	0.12	70	0.11	170	0.12	103	0.12	27	0.11
	Sold productive assets	370	0.16	70	0.14	170	0.14	103	0.19	27	0.15
	Taken children out of school	370	0.06	70	0.04	170	0.08	103	0.05	27	0.07
	Taken financial or material support from family or neighbors	370	0.35	70	0.34	170	0.38	103	0.35	27	0.15
	Taken financial support from bank	370	0.02	70	0.01	170	0.05	103	0.00	27	0.00
	Taken financial support from other source	370	0.06	70	0.03	170	0.08	103	0.05	27	0.07
	Sent HH member to eat at other house	370	0.06	70	0.03	170	0.06	103	0.07	27	0.07
	Had HH member migrate	370	0.01	70	0.01	170	0.01	103	0.01	27	0.00
	Financial coping strategies used in past month	Loan from Financial Institution	368	0.03	69	0.01	170	0.05	102	0.01	27
Loan/Saving Association		368	0.07	69	0.06	170	0.08	102	0.08	27	0.04
Borrowed from Friends/Family		368	0.55	69	0.52	170	0.55	102	0.59	27	0.52

	Borrowed from Shopkeeper/Community Member	368	0.43	69	0.35	170	0.48	102	0.46	27	0.26
	Withdrew Savings	368	0.14	69	0.16	170	0.18	102	0.11	27	0.04
	None	368	0.16	69	0.20	170	0.14	102	0.16	27	0.26
	Other	368	0.07	69	0.07	170	0.07	102	0.06	27	0.11
Change in sources of finance	Borrowed from Source Previously	274	0.67	46	0.74	131	0.70	79	0.62	18	0.50
Debt	Amount of HH Debt 1 Month Ago	368	18187.91	69	19021.74	170	16549.71	102	14066.67	27	41940.74
	Current HH Debt	368	22902.26	69	22370.29	170	21229.31	102	19326.47	27	48303.70
	Change in Debt	368	4714.36	69	3348.55	170	4679.61	102	5259.80	27	6362.96
Sources of support in past 7 days	Local Government	368	0.01	69	0.01	170	0.02	102	0.01	27	0.00
	Community Organization	368	0.01	69	0.03	170	0.01	102	0.00	27	0.04
	Friends/Family/Neighbors	368	0.18	69	0.26	170	0.16	102	0.16	27	0.15
	International NGOs	368	0.05	69	0.04	170	0.04	102	0.10	27	0.00
	None	368	0.75	69	0.67	170	0.77	102	0.75	27	0.81
	Other	368	0.02	69	0.01	170	0.01	102	0.02	27	0.04
Type of support received in past 7 days	Financial Support	93	0.47	23	0.57	39	0.41	26	0.54	5	0.20
	In-Kind Support	93	0.74	23	0.65	39	0.79	26	0.73	5	0.80
	Material Support	93	0.01	23	0.00	39	0.00	26	0.04	5	0.00
	Other	93	0.03	23	0.04	39	0.03	26	0.00	5	0.20
Received support from source before restrictions	Received Support Before Restrictions	93	0.48	23	0.61	39	0.54	26	0.31	5	0.40

Group	Variable Name	N (Full Sample)	Mean (Full Sample)	N (25% or less of HH under 18)	Mean (25% or less of HH under 18)	N (26 - 50% of HH under 18)	Mean (26 - 50% of HH under 18)	N (51 - 75% of HH under 18)	Mean (51 - 75% of HH under 18)	N (75% or more of HH under 18)	Mean (75% or more of HH under 18)
Informed on Covid	Feel Informed re: COVID Symptoms & Prevention	368	0.96	69	0.99	170	0.96	102	0.93	27	1.00
Source of information on COVID	Government Announcement	368	0.26	69	0.17	170	0.33	102	0.21	27	0.26
	News	368	0.85	69	0.90	170	0.84	102	0.84	27	0.78
	Friends	368	0.51	69	0.38	170	0.49	102	0.59	27	0.63
	Local Leaders	368	0.24	69	0.14	170	0.28	102	0.28	27	0.15
	Internet	368	0.21	69	0.38	170	0.15	102	0.22	27	0.15
	Other	368	0.04	69	0.07	170	0.04	102	0.03	27	0.04

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About Mercy Corps

Mercy Corps is a leading global organization powered by the belief that a better world is possible. In disaster, in hardship, in more than 40 countries around the world, we partner to put bold solutions into action — helping people triumph over adversity and build stronger communities from within.

Now, and for the future.



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