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#### The impact of COVID-19 and other shocks on Agri Food SMEs along the poultry and fish value chains in Borno State

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#### Introduction and Background

This policy research note summarizes key findings from a study on the impact of COVID-19 and associated policies on SMEs along the poultry and fish value chains in Borno State. We use monthly data collected from 64 agri-food enterprises over 9 months (February 2020 to October 2020) to understand how COVID-19 and associated policies impacted business operation and employment. We evaluate impacts on firms of different sizes (small and non-small), and how these impacts varied across different nodes of the supply chain i.e., lateral (feed mills, chicks and fingerlings) upstream (e.g., farms), midstream (e.g., wholesalers and processors) and downstream (e.g., retailers).

As it was not possible to visit the field, selected respondents were interviewed by phone. The sample of 64 firms was selected through a combination of convenience sampling and snowballing. First, the study team received a list of potential respondents from the chicken and fish subsectors from the state Ministry of Agriculture. At least one enterprise from selected nodes of these value chains was selected randomly. After a brief introduction, respondents were asked for their consent to be part of the study. They were then asked to provide names and phone numbers of other persons engaged in the poultry and/or fish value chains.

#### Key Messages:

- Businesses in Borno State were already facing challenges prior to COVID-19 which were exacerbated by the lockdown policy in the state.
- Consistent with the observed disruption to business operating days, the majority of businesses in Borno State faced challenges in the early months of 2020 but this reduced substantially in the second half of the year.
- The share of businesses hiring labor reduced drastically during the lockdown period. This effect persisted, with important livelihood implications for workers who lost income earning opportunities.
- None of the respondents in the study sample received any assistance from any source, including government.

#### COVID-19 and associated policies in Borno State

Borno State is in Northeastern Nigeria. The rural economy of the state relied heavily on livestock and crops prior the Boko Haram insurgency, and the state capital (Maiduguri) has been a major regional trade and service center. Even before the onset of COVID-19 the state suffered from economic instability due to the activities of Boko Haram. This rendered lots of rural residents homeless and the state capital is no longer peaceful for the regional trading activities it was known for. As of July 2021, the state had recorded a total of 1,344 confirmed COVID-19 cases and 72 deaths (NCDC dashboard). Borno State recorded its index case on 19 April 2020 (Premium Times, 20 April 2020).



Upon the confirmation of the index case, the Borno State government imposed a 14-day lockdown beginning on 20 April 2020. This coincided with Ramadan (a month of fasting, reflection and prayer for Muslims when many religious activities are held), which ran from late April to late May. The lockdown was intended to curb further spread of the disease as 95 individuals who had been in contact with the index case were traced. Other policies included use of facemasks, social distancing and limiting the number of people attending religious gatherings.

### Overview of poultry and fish production in Borno State

Poultry production and sale is important in Borno State and the Nigerian economy because it provides income to a significant number of residents as well as a good source of animal protein (meat and eggs). In Borno State, poultry (especially local breeds) are kept as an asset that can be sold in times of need to cater for other household demands such as food, clothing or agricultural inputs (seeds, fertilizer, agrochemicals and labor). Poultry is reported to be a lucrative economic enterprise in Borno and a source of jobs (Tijjani, 2012). In addition to challenges such as high feed costs, disease outbreaks, and marketing problems, (Nmadu, 2014) Boko Haram has denied many the opportunity to invest in the poultry sector since some people were rendered homeless and others displaced to neighboring states. With the resurgence of peace to some extent in the state, many non-Government organizations (NGOs) are working to support the populace (especially women) to secure a living income by supporting them with poultry and other livestock (sheep and goat) so that their products (meat, eggs and milk) can be sold. Such NGOs include Global Food Security Cluster (GFSC), and Action Against Hunger. Between 2019 and 2020 the poultry population in Borno State increased 7.5% from 1,831,622 to 1,968,994, and is anticipated, to increase further if peace is sustained (NAERLS, 2020).

Similar to poultry, there is a high demand of fisheries and aquaculture products in Borno State. Prior to the Boko Haram insurgency, Borno supplied most parts of the country with fish products (dried Catfish). The Doron-Baga fish market was in the 1960s and 70s, a well-known fishing hub. Due to effects of climate change, the size of Lake Chad has decreased significantly and many fishermen have left the lake or turned to subsistence farming. However, fishing activities in the state have declined most because of the Boko Haram insurgency. Before the crisis, the fish industry provided direct and indirect employment for residents in rural Borno. Fishers, fish processors, marketers, retailers, and many other actors earned their living from fish production and associated value chains. Income from the industry contributed significantly to demand for other goods and services like food, household items, and school fees. But the adverse effects of the conflict on the fishing industry resulted in substantial loss of rural livelihoods (FAO, 2019). Reports from AIFP (2004) and FAO (2007) indicate that Borno State has 18 of the 214 dams and reservoirs in Northeast Nigeria, (placing it 5<sup>th</sup> out of 6 states in the Northeast) and 12 out of 62 fish farms, placing it 2<sup>nd</sup> among the 6 states.

### Four key findings on the impact of COVID-19 and associated policies on business operations in Borno State.

#### 1. Businesses in Borno State were already facing challenges prior to COVID-19 which were exacerbated by the lockdown policy in the state

For all nodes except those in lateral supply chains (feed suppliers and hatcheries) the average number of days of business operation seems to have been lower in the early months of 2020 (between February and May) compared to later months post June 2020 (Table 1). This finding is consistent across business locations (rural or non-rural), business size and gender of business owners and indicates that something else was affecting business operations in Borno prior to the escalation of concerns about COVID-19. For the lateral supply chains business appears to have been similar

pre- and post-May (when Borno State had their lockdown). Thus, compared to February, March and April there was a significant reduction in the average number of operating days in May to about 60% of March and April levels, only to resume to normal levels from June 2020.

This disruption in activities due to the lockdown is also apparent in the downstream segment of the value chains (egg, poultry, and fish retailers), where the average number of small businesses operating days dropped by 20% from 22 in March and April to 18, only to resume full operation almost every day from June onwards. Together these results reveal that many SMEs along the fish and poultry value chains in Borno State were already experiencing disruptions to their operations prior to the escalation of COVID-19 concerns in the state. For those in the lateral and downstream supply chain segments, these disruptions were exacerbated by the lockdown policy in May. From June onwards, business activities for SMEs along the study value chain resumed full operation to 30 or 31 days a month as the lockdown was eased and in part to compensate for the disruptions in the earlier months. While we don't observe different trends for small and non-small businesses, Table 1 reveals that non-small businesses tended to operate for similar or lower average number of days in the early months of the year (compared to small businesses) indicating that they might have been more affected by the pre-existing challenges to business operation in the state prior to the COVID-19 pandemic.

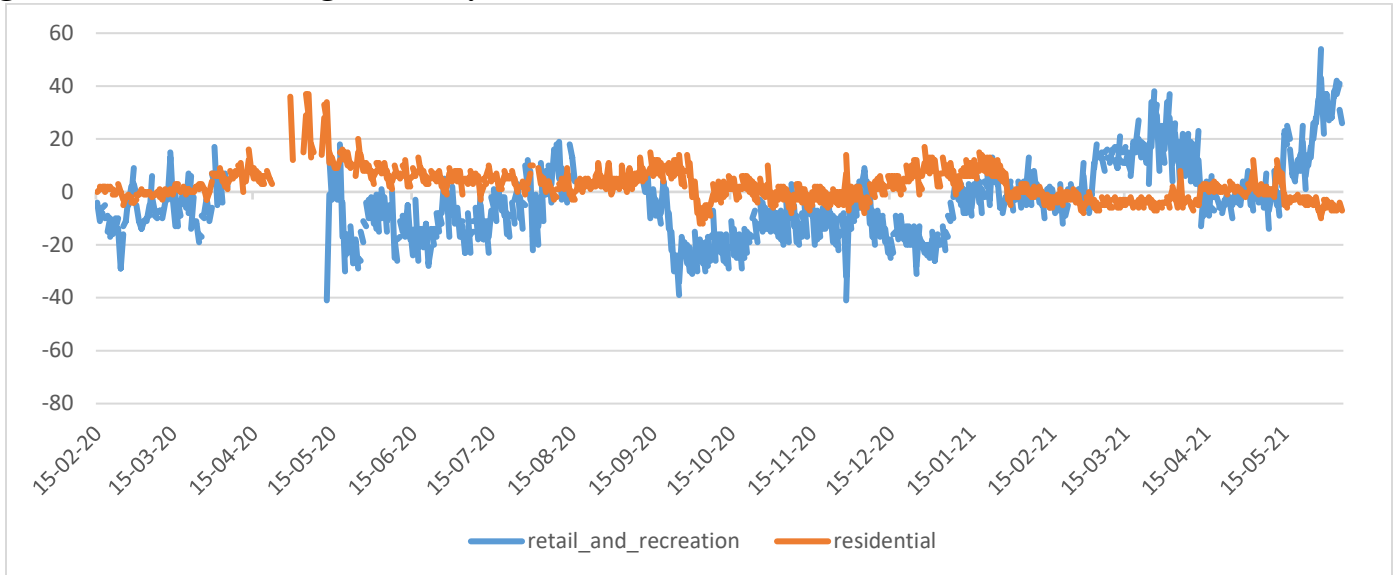
**Table 1. Average number of days of operation of businesses during the study period**

	Feb	Mar	Apr	May	June	Jul	Aug	Sept	Oct
<b>SMALL BUSINESSES</b>									
Lateral SC	25	22	23	14	23	21	23	21	25
Upstream	27	29	27	29	30	31	31	30	31
Midstream	23	23	23	25	30	31	31	30	31
Downstream	24	22	22	18	30	31	30	30	27
<b>NON-SMALL BUSINESSES</b>									
Lateral SC	25	18	18	16	30	31	31	30	31
Upstream	28	31	30	31	30	31	-	30	31
Midstream	22	23	23	17	30	31	31	30	31
Downstream	20	14	19	15	30	31	31	30	31

Source: Authors calculations

The impact of the lockdown policy in Borno State is further revealed by the Google mobility index (GMI) shown in Figure 1. The GMI is constructed using mobile phone user data, and shows percentage changes in mobility each day, relative to a baseline during the first half of February 2020. The Borno State mobility index indicated a decrease in retail and recreational movement from May 2020 and for the same period a significant increase was recorded in residential movement (i.e. staying at home). This pattern reflects the lockdown imposed in the state which led to a decrease in retail and recreational activity and increased the length of time people spent at home. The graph indicates that the pattern continued until the first quarter of 2021 (January-March) when an increase was recorded for retail and recreational movement and a corresponding decrease for staying at home.

**Figure 1. Borno State Google Mobility Index**



Source: <https://www.google.com/covid19/mobility/>

## **2. Most businesses in Borno State faced challenges in the early months of 2020, but this reduced substantially in the second half of the year.**

Consistent with the low average days of business operation in the early months of 2020, the majority of surveyed SMEs reported facing challenges during the first half of 2020, but this share fell from June onwards. In February, March and April, between 90% and 95% of SMEs reported facing a challenge of some kind. Though there was a slight reduction in the share of businesses' reporting that they faced challenges in May, the share was still high at over 80%. From June to October, the share of businesses reporting facing challenges was much lower at 60% in June and July and declining further to under 30% in August and under 10% in September and October.

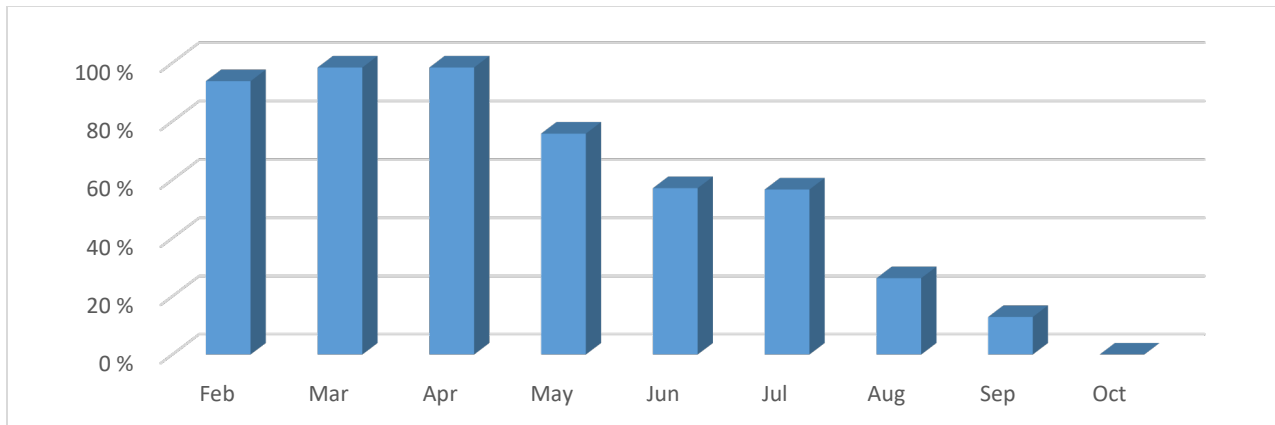
A closer look at the nature of challenges reported by SMEs in Borno (see Figure 3) revealed that key challenges in the early part of 2020 included the Boko Haram Insurgency, and low demand forcing businesses to make sales on credit. This is consistent with the idea that there were already significant disruptions to supply chain activities in Borno State prior to concerns about COVID-19. However, in May 2020 (when a lockdown was imposed in Borno State) COVID-19 movement restriction was the major reported challenge. Post-lockdown, the key challenge became the high cost of inputs, which began increasing from June 2020 peaked in August before dropping. It is important to note that lockdown in other neighboring states (e.g., Kano, Jigawa, Adamawa and Gombe) States was also seen to affect activities in Borno State as COVID-19 movement restriction were spotted in the months' prior the lockdown imposed in Borno, which took place in May.

For example, a small-scale poultry farmer in Borno reported experiencing “*problems of interstate travel, [with] too many security checks causing high cost of moving chicks to farm*”. Similarly, a small-scale fish retailer indicated that the challenges they faced included “*Closure of markets due to total lockdown, and personnel on highways demanding for so much money for goods to be transported*”.

Prior to the COVID-19 lockdown, challenges reported by SMEs included “Boko haram activities [that] has slowed down availability of markets and businesses activities”, and “Boko haram attacks [that] made my team unable to go to our usual fishing areas to catch fish”, as reported by a non-small fish processor, and a small-scale fisher, respectively.

These examples clearly illustrate how SMEs in Borno State suffered from insecurity challenges which caused a drop in productivity of actors along the value chains of different commodities and increased operating costs as they tried to transport products within the state or across state boundaries.

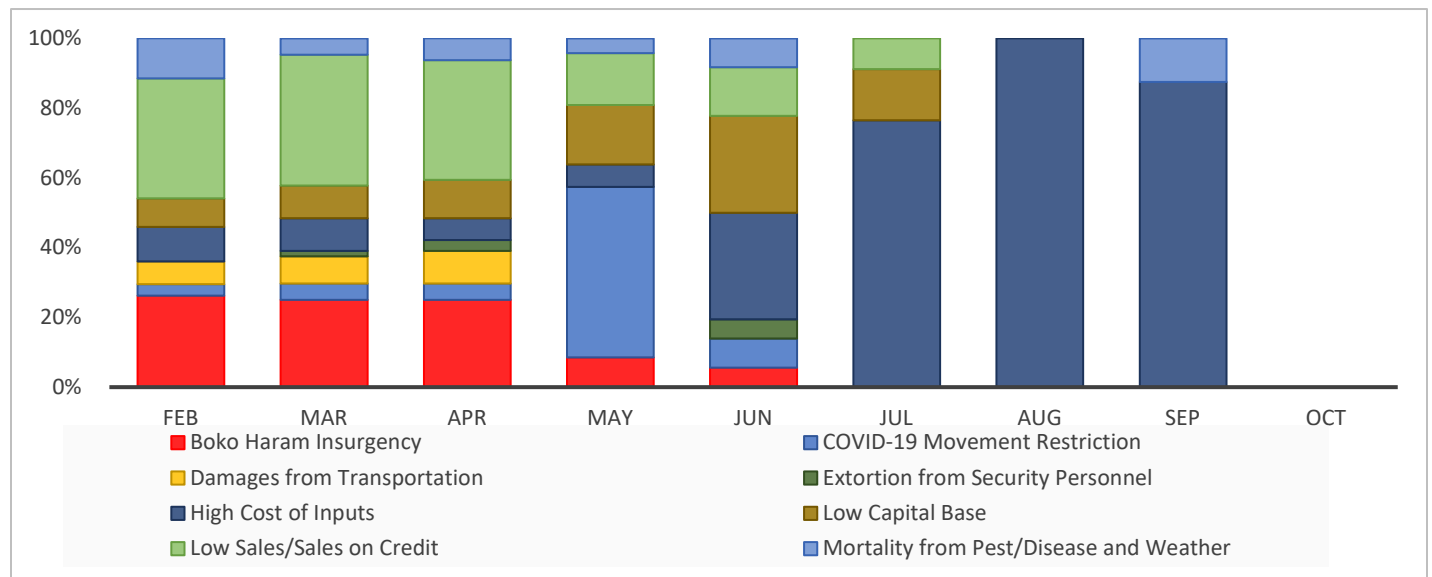
**Figure 2. Share of businesses reporting that they faced challenges over the study period**



Source:

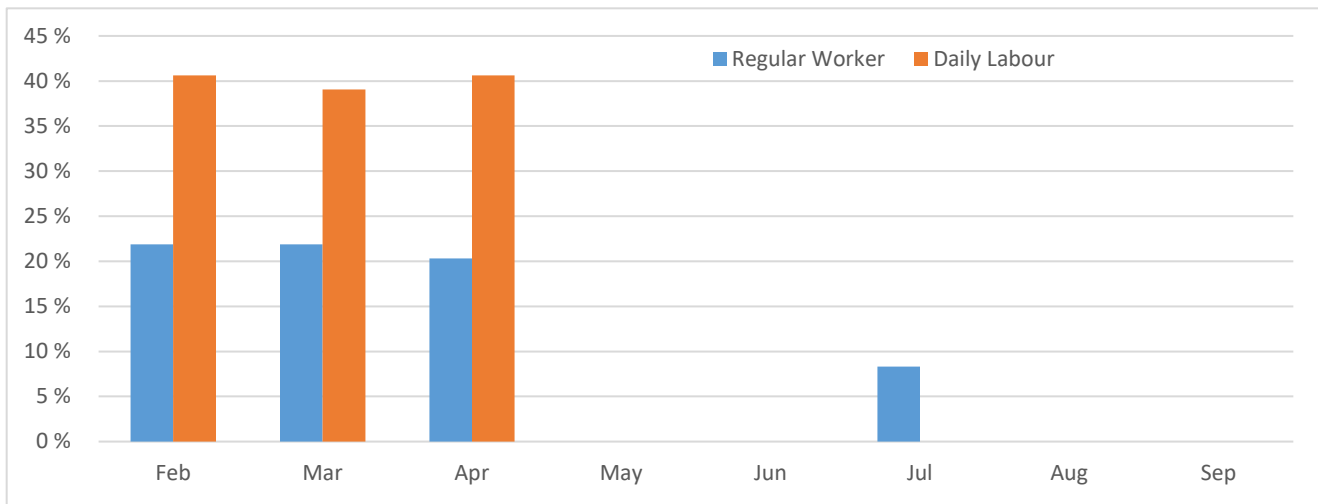
Authors calculations

**Figure 3. Nature of Challenges faced by respondents over the study period**



3. **The share of businesses hiring labor fell drastically during the lockdown period and this drop persisted.** In February and April 2020, SMEs in Borno State were more likely to hire casual daily workers than regular salaried workers; employed by about 40% and 20% of businesses, respectively. However, there was a complete drop in use of both hired daily labor and salaried workers in May and June which largely persisted till September. This suggests important livelihood implications for workers who lost their income earning opportunities. When combined with Table 1, showing that businesses resumed full operation in June onwards to 30/31 days a month, this result suggests that that post-May 2020 businesses in Borno State depended largely on their own or family labor for their business operations.

**Figure 4: Share of SMEs reporting hiring regular salaried workers and hired daily laborers**



Source: Authors calculations

4. **None of the respondents in the study sample received any assistance from any source, including government.**

Despite the numerous challenges being faced by businesses in Borno State due to Boko Harm insurgency and then exacerbated by COVID-19, no businesses in the study sample reported receiving assistance from any source whether government or their social network. This result was consistent across value chain nodes, business location, business size and gender of business owners.

### Conclusions and policy recommendations

Lockdown policies were implemented to curb the threat of COVID-19 in most states in Nigeria, but the case of Borno is slightly different. The state government, recognizing that the state was facing a serious insecurity challenge (Boko Haram) which has already caused lots of problems to the residents of the state, delayed the imposition of lockdown till between late April and early May, that fell during the Ramadan (Fasting) period. During this period Muslims around the world perform Tarawih and Tahajjud (Prayers done during Ramadan) thus bringing people together. To avoid the spread of the disease the government therefore had to impose a lockdown that lasted throughout Ramadan. This affected business operations in the state and further added to the existing challenges,

including high input costs, low capital base, and sales on credit, resulting from low sales due to the lockdown. Despite federal government provision of assistance to residents of the country, respondents interviewed for this study accessed no form of assistance at all.

Some policy recommendations arising from these findings include:

- Ensure that possible disruptions to the supply of inputs are considered when imposing movement restrictions to avoid impacting production volumes and prices.
- Establish an effective digital data management system containing citizens' details to ensure assistance reaches people most in need.
- Encourage producers in product value-chains to be organized in clusters and supported with information about market opportunities and prices.
- Additional measures to support market access such as government procurement of products for school feeding or other programs can further support agrifood SME access to stable markets.
- Relevant authorities should ensure that security personnel concentrate on the protecting lives and property citizens and do not add to production costs through extortion of agrifood SMEs.

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