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NORTHEAST NIGERIA JOINT LIVELIHOOD AND MARKET RECOVERY ASSESSMENT

2017















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Executive Summary

After several years of conflict, Northeast (NE) Nigeria seems to be turning a corner. Although there are still significant pockets of insecurity and areas where infrastructure is severely damaged, trade relationships remain relatively strong and provide an important foundation for recovery. During this assessment, which took place from January to August 2017, over 2,907 individuals were interviewed in order to understand the opportunities and constraints to agricultural production, examine market dynamics, and to determine opportunities for aid to more effectively support early recovery efforts.

This report is organized into five categories of constraints: 1) restricted movement of goods and people;
2) restrictions on marketplaces and economic activity; 3) limited access to inputs and extension-related services;
4) limited access to financial services; and 5) the effect of aid on markets. There is also a section on cross-cutting issues. At the end of each section there is a response options table that provides recommendations and different options for each constraint. Key takeaways from the assessment include:

- Poor quality roads emerged as a serious issue that affects a farmer's ability to get goods to market and further
 weakens the distribution network for agricultural inputs. This means not only farmers struggle to access seeds
 and other inputs, but also that their ability to learn about new technologies and practices will be hampered
 for some time. The map on page 5 shows the state of the roads at the time of the assessment.
- 2. In many locations, market infrastructure was destroyed by insurgent attacks including marketplaces and storage facilities. Although many of these were in poor condition to begin with, they are now non-functional and in urgent need of rehabilitation, as the chart on page 9 shows. Rehabilitation of marketplaces and storage facilities can contribute to food security through increased income-generating opportunities as well as improved storage of foodstuffs. Rehabilitation activities may also provide labor opportunities.
- 3. Savings mechanisms have been undermined by the insurgency through the dissolution of savings groups (when people became IDPs) and through the closure of many banks and MFIs due to threats and insecurity. Although traders and input dealers are still providing credit to some customers, they are doing this for fewer people and for lower amounts. Multiple interventions are suggested for improving access to finance and supporting increased agricultural activity.
- 4. While the network supplying agricultural inputs to farmers was thin prior to the insurgency, and is in need of updated products and technologies, it has proven resilient. Input suppliers and transporters have found ways to continue trade despite increased restrictions on the movement of goods and poor or insecure roads. The map on page 28 provides a picture of how input suppliers have changed their trade practices and routes in response to the insurgency. Due to the relative strength of this group, they provide an opportunity to top-up government extension efforts and strengthen food security through the introduction of improved inputs and methodologies.
- 5. Prior to the insurgency, Northeast Nigeria did more trade across national borders than it did with the rest of Nigeria. Although these relationships remain in place, there is little to no trade now as borders remain closed. Finding ways to restore these trade linkages will increase income-generating opportunities and food security for the area.
- 6. Cash and voucher programming is successfully taking place in several areas of the Northeast. However, in-kind aid distribution also continues to take place and traders report that it has a neutral to negative impact on their businesses, whereas cash distributions are reported by both the business community and by financial

institutions as having a positive impact on small businesses. It is recommended that cash programming is extended (see map on page 42) and that in-kind aid is stopped for all but a few specific commodities.

In summary, it is clear that there are multiple opportunities to ensure that early recovery efforts for Northeast Nigeria are market friendly. Humanitarian actors should work closely with community structures already in place to prioritize community-identified needs and determine the most stable areas to begin. It is also important that youth and women are appropriately represented in these discussions and given a voice in decision making. Many of the activities suggested below are likely to be supported by social ties and trade linkages that seem to have survived the insurgency. This social capital should be recognized as an important asset within communities, and assistance efforts should be designed to reinforce it.

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Acronyms

ABP Anchor Borrower Programme

ADP Agriculture Development Programs

CACS Commercial Agriculture Credit Scheme

CBN Central Bank of Nigeria

CFW Cash for Work

CITAD Centre for Information Technology and Development

CJTF Civilian Joint Task Force

FAFIN Fund for Agricultural Finance in Nigeria

FAO Food and Agriculture Organization of the UN

FEPSAN Fertilizer Producers and Suppliers of Nigeria

FGD Focus Group Discussion

FGN Federal Government of Nigeria

FI Financial Institutions

ICRC International Committee of the Red Cross

IDP Internally Displaced Person/Persons

INGO International Non -Governmental Organization

LGA Local Government Area

MERS Minimum Economic Recovery Standards

MFI Micro Finance Institution

MNO Mobile Network Operator

MSME Micro, Small and Medium Enterprises

NASC National Agricultural Seed Council

NE North East

NIRSAL Nigeria Incentive-Based Risk Sharing System for Agricultural Lending

NURTW National Union of Road Transport Workers

OCHA Office for the Coordination of Humanitarian Affairs

OCP State owned Moroccan Company

OPV Open Pollinating Variety

PFI Presidential Fertilizer Initiative

SPV Special Purpose Vehicle

USDA US Department of Agriculture

USIP United States Institute of Peace

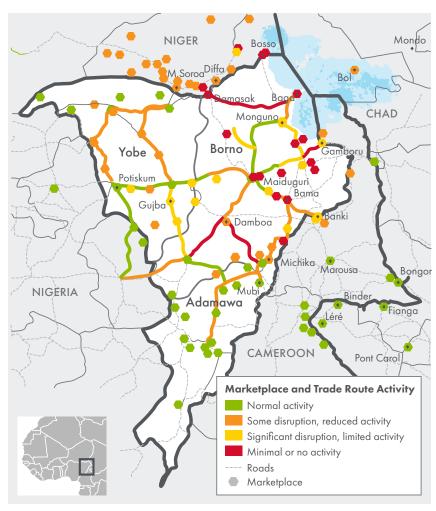
WFP World Food Programme

Introduction

From January-August 2017, Mercy Corps, the International Rescue Committee (IRC), Oxfam, Action Against Hunger, Catholic Relief Services (CRS), and Cooperazione Internazionale undertook a livelihoods and market assessment in Adamawa, Borno, and Yobe in Northeast Nigeria. The Livelihoods and Market Recovery Assessment (LMRA) for Northeast Nigeria was designed to gain a deeper understanding of post-insurgency livelihood and market recovery strategies and to identify opportunities for future market system programming in this conflict-affected area. This included: 1) identifying opportunities and constraints for agricultural-based activities for conflict-affected communities and; 2) understanding the cross-cutting market system dynamics across three conflict-afficted states: Adamawa, Borno, and Yobe.

The assessment approach was based on a market selection process with partners and included a series of focus group discussions (FGDs) with farming communities and urban IDPs. The assessment team analyzed four market systems based on their income potential, relevance to target groups, potential for intervention, and opportunity to support increased resilience.1 The assessment itself involved: 1,622 quantitative surveys of farmers; 660 quantitative surveys of input suppliers; 50 qualitative key informant interviews with farmers; 483 qualitative key informant interviews with input suppliers and distributors; and 100 key informant interviews with government representatives and other market actors such as trade association representatives, traders, processors, commercial banks, MFIs, and INGOs (more detail on the methodology is available in Annex 1). The selected market systems included cereals (millet, sorghum, and maize), pulses (cowpeas, beans, and

MARKETPLACE AND TRADE ROUTE ACTIVITY MAP



¹ Weighted criteria was applied to each market system and evaluated. Criteria used included:

Relevance for income: the market system offer's high numbers of vulnerable households income generation and employment creation opportunities

Relevance to target groups; vulnerable socio-economic groups, such as women, girls and IDPs, are involved in the market system

[·] Potential to intervene: restrictions or legal issues are unlikely to prevent potential impact in the market system (i.e., Government, military, Boko Haram, other regulating actors, etc.)

[•] Resilience / sustainability: the market system has potential to adapt to the crisis context

groundnuts), vegetables (onions, tomatoes, peppers), and agricultural inputs (seeds, fertilizer) and should be considered for the initial focus of recovery efforts. While each crop has its own characteristics, they are grouped as agricultural subsectors (pulses, cereals, and vegetables) because they are generally traded through the same market actors and face similar market constraints. Livestock, although an important market system in the area, was not selected because the target groups — particularly women and the poorest wealth groups — were much less likely to derive income from livestock, and therefore livestock scored much lower in the rankings. This assessment looked at the attitudes and perceptions of market actors directly engaged in market systems, especially small-scale farmers and the traders and input suppliers with whom they connect on a regular basis.

Economic Context

All Nigerian markets are suffering from the fluctuations of the Naira and inflation rates increased to 18.7% at the start of 2017, before they came down to 16% in July 2016.² Food costs make up a significant proportion of the inflation rate, and therefore inflation rates reflect directly on the hardship faced by households in the form of higher food costs.³ Reduced production and increased transportation costs in the targeted areas as a result of the conflict have compounded the effects of inflation, further reducing poor households' purchasing power and access to staple goods in certain areas.⁴

Conflict throughout the Lake Chad Basin continues to restrict normal trade flows, and the prices of cattle and small ruminants are reportedly in decline due to the conflict and border closures.⁵

Overview of Selected Markets

Survey participants were asked "What is your most important crop?".6 Maize, millet, and sorghum were among the most important crops. Given that they make up a significant portion of household caloric intake and incomes and, in the case of maize, are often part of humanitarian assistance packages, better understanding of these markets has the potential to improve humanitarian programming. Pulses that were considered most important were cowpeas, beans and groundnuts, all a significant source of protein, and again often included in humanitarian assistance packages. Vegetables (onions, tomatoes, peppers) are considered important by only a small proportion of farmers, yet these crops provide a small but steady income stream for farmers, even during the off-season, and are an important contributor to nutrition outcomes. The selected crops were most often prioritized because they are considered easy to grow, there is a market for the produce, seeds are available, and people are familiar with how to grow them.

The assessment found that in general, the ranking of important crops and reasons for selecting them remained the same for men and women and for host communities, IDPs, and returnees.

² https://tradingeconomics.com/nigeria/inflation-cpi and Nigerian National Bureau of Statistics

 $^{3 \}qquad \text{https://www.africaresearchinstitute.org/newsite/blog/silent-crisis-food-price-inflation-africa/}\\$

WFP Nigeria Situation Reports #15 and #19, June and August 2017

Ibid

⁶ In this assessment, an "important crop" is a proxy indicator. "Important" is defined as a crop that is particularly significant because of income, consumption, and market access. Respondents were asked to list all the crops they grow, then they were then asked which of these were the most important

⁷ The range of vegetables grown is vast; therefore this assessment used onion, tomato, and chilli pepper--the most commonly grown and consumed vegetables—as a proxy for all vegetable production. They also represent the basic ingredients of most cuisine in Northeast Nigeria

FIGURE 1: MOST IMPORTANT CROPS FOR NORTHEAST NIGERIA BY STATE

	Crops	NE Nigeria	Adamawa	North Borno	South Borno	Yobe
1	Maize	49%	81%	35%	80%	17%
2	Millet	40%	3%	60%	16%	62%
3	Cowpeas/Beans	32%	32%	40%	34%	23%
4	Groundnut	31%	52%	34%	33%	19%
5	Sorghum	30%	18%	24%	26%	48%
6	Rice	12%	25%	5%	12%	6%
7	Vegetables	4%	1%	4%	5%	5%

Production Levels: Only 15% of the farmers interviewed had to stop production entirely as a result of the insurgency. However, many continue to be unable to plant at pre-insurgency levels due to decreased access to land, either because of displacement or because ongoing insecurity prevents them from accessing farm plots farther from the homestead. Most local governments, in coordination with the military, provide recommendations on where farmers can safely plant, and these are generally within a 3-10 km radius from the town. Height restrictions on crops, particularly maize, which is easy for insurgents to hide in as it nears maturity, have also limited planting choices, as have restrictions on the transport of chemical fertilizers.

Purchasing Power: WFP reports that despite generally favorable harvests around the country, the limited agricultural production in the Northeast, combined with the depreciation of the Naira and restricted trade, has led to significant increases in the retail prices of staple goods. Average prices of commodities tracked by WFP have increased 15-35% since the end of 2016. During the same period, wages for manual labor, an important livelihood strategy for the poor, have not increased, resulting in significantly reduced purchasing power for households. According to FEWSNET, prices for local and imported staples including rice, millet, maize, and sorghum are likely to remain high through September, continuing limitations on purchasing power through the lean season. Harvest prospects look good for October-November harvests.

Wholesale Prices: Prices for crops sold are determined daily, based on seasonal availability, road access, and other factors. One trader explained that since there is not a fixed price for cereals, traders are occasionally willing to increase the purchase price if the farmer's cost of production has increased. These adjustments however, are not guaranteed. Unsurprisingly, most farmers do not keep records of expenses or revenues. Because they don't know their costs of production they are in a weak negotiation position when they go to market to sell their goods. In some instances, retail prices are set by a local market association. The association provides governance of a specific market, and sets prices for the traders and processors who buy and sell in that marketplace as well as for input suppliers. The association charges a fee for membership which is passed on to the customer, adding another 3-10% to the overall price. Price is also affected by storage and stock levels from previous harvests. Stocks of food brought in from outside the country are particularly subject to currency fluctuations. The current barriers to regional trade also affect the supply of food and thus the price.

⁸ RBD Markets Update, WFP, April 2017 and FEWSNET Price Bulletin June 2017

⁹ http://www.fews.net/west-africa/nigeria/food-security-outlook/june-2017

¹⁰ Corruption is prevalent throughout Nigeria, and in some cases corruption may have an impact on pricing. The way transactions are organized and overseen can create incentives to act in certain ways, therefore, addressing the systemic dysfunctions may also help address corruption issues

Market Relationships: Around 90% of farmers sell their goods at the local market just a few kilometers from their farm or homestead, and this dynamic remained true for women and IDPs/returnees. However, during the insurgency the assessment estimates that between 20-25% of farmers changed where and how they accessed the market, which was often still relatively close to home, either by changing marketplace, buyer, or both. Three-quarters of farmers changed both the marketplace they used and the market buyer with whom they worked. For this group, the table below shows that reliance on local traders has increased significantly, as did direct sales to consumers (specifically those beyond family and neighbors). As of February, farmers were still reporting that they were traveling more than 8 km on foot to buy and sell goods, indicating increased strain on market relationships. It is also notable that sales to regional traders and associations have decreased significantly. Sales to associations most likely dropped due to the displacement of the farmers, while sales to regional traders most likely dropped due to the fact that regional trade routes continue to be closed. One sign of recovery is that the use of community buildings as markets has dropped and local marketplaces are being used again in many locations.

FIGURE 2: MARKET CHANNELS FOR CROPS SOLD BEFORE, DURING THE INSURGENCY, AND NOW11

FARMERS WHO CHANGED SALES POINTS DURING INSURGENCY, SOLD TO:	BEFORE	HEIGHT OF INSURGENCY	NOW
Local Trader	8%	3%	33%
Consumers directly	0%	0%	20%
Family/neighbors	20%	19%	19%
Processor	10%	6%	9%
Vendor/stallholder	7%	10%	5%
Regional Trader	28%	39%	6%
Farmer group/association	24%	16%	3%

An opportunity exists in Northeast Nigeria to leverage the capacity of local actors and systems to improve humanitarian aid delivery and increase the impact of development programs. ¹² The recommendations and response options below are designed to strengthen market systems and speed recovery. While they are not exhaustive, the following constraints and recommendations provide a foundation for program design. Where information is available, location-specific recommendations have been made, however each local geography and set of relationships will be slightly different, and activities should be designed with these differences in mind.

The LMRA's value is that it has helped to draw out recovery mechanisms that consider the broader market system, as well as to identify potential leverage points within the system to reach greater scale and longer-term impact. With this in mind, the programming recommendations here utilize or strengthen the market system as a means to increasing access and opportunities for income generation, livelihood recovery, and economic stimulation. They also strive to: meet basic needs while protecting future agriculture productivity; minimize negative impacts on market actors; increase access to opportunities for increased income or productivity; improve household use of markets for resilience; and increase the impact of aid funding by working through actors positioned to reach more people.

¹¹ Data gathered in Feb-March 2017

¹² It is highly recommended that implementers refer to the Minimum Standard for Economic Recovery (MERS), which is the Sphere standard for most of the activities discussed below. It can be found at www.mershandbook.org

Constraints

The assessment focused on five major constraints: 1) restricted movement of goods and people; 2) restrictions on marketplaces and economic activity; 3) limited access to inputs and extension services; 4) limited access to financial services; 5) the effect of aid on markets. Issues that cut across all these constraints are found in the next section.

The sub-sections below outline the issues for each type of constraint and at the end of each sub-section is a list of recommendations and response options. The recommendations are given at a higher outcome level and may require multiple activities in order to be achieved. The response options should be used in combination where appropriate to contribute to these higher-level recommendations. Different locations will likely recover at different rates, and therefore any proposals that follow-on from this report should articulate a greater level of detail than the aggregated response options.

Restricted Movement of Goods and People

Key finding: Insecurity, military restrictions, and poor quality roads have led to a significant disruption in the flow of goods across borders and within Northeast Nigeria, significantly hindering farmers' production and sales opportunities.

Transportation and Roads

According the National Union of Road Transport Workers, the greatest constraint faced by transporters during the insurgency was the seizure of goods by insurgents and an accompanying perception of a lack of support from the Federal and State Governments, even after the killing of several union drivers. This contributed to a significant decrease in the transport of goods to Local Government Areas (LGAs), bringing the transport of fuel and food items nearly to a standstill. While the security situation has improved, the inability to access roads as well as the poor state of roads continues to be the second-most important concern for small and medium businesses in Yobe and Adamawa. In Borno, insecurity is the second-highest concern identified by farmers and market actors during the assessment. 13 The World Bank's Living Standard Measurement Study has also identified limited access to roads in rural areas as the most important constraint for doing business. 14

ROAD QUALITY MAP



¹³ The greatest concern in all three areas is access to credit and capital for restarting businesses

¹⁴ Nigeria's Living Standard Measurement Study-Integrated Survey on Agriculture, 2012-2013, World Bank; http://econ.worldbank.org/WBSITE/EXTERNAL/EXTDEC/

Before the insurgency, the Transport Union, which is represented throughout Nigeria, hired its own drivers for greater control. Goods were transported nationally and large volumes of agricultural commodities passed through Adamawa and Borno for cross-border trade with Niger, Cameroon, Chad, Benin Republic, Togo, Ghana, CAR and Burkina Faso. Insurgents killed several drivers and often burned trucks and cars. The transport industry was devastated and union members lost a total of 750 vehicles during the conflict. It was at times impossible to transport produce for export or to import products into the rest of Nigeria from the Northeast. Roads to Chad and Cameroon were among the first to be blocked and in Borno all roads except for the Maiduguri-Damaturu Road were closed. The closure of the Biu-Jos Road was particularly devastating for the agriculture sector in Borno and Taraba.

The Transport Union has developed a close relationship with the military and their vehicles face no harassment at checkpoints. Soldiers even help with mechanical breakdowns to prevent potential attacks. The Union's relationship with the State Government in Borno is strong, reflected in the Government's replacement of 400 of the 750 vehicles lost in the past.

The current federal administration took over the roads late in the summer of 2015, after 2-3 months in power. The opening of the Maiduguri-Biu road meant that the Union could transport agricultural commodities from Southern Borno for sale in Maiduguri and elsewhere with the support of armed military convoys. No convoys were available for the Maiduguri-Chibok road or the Maiduguri-Yola road, which affected movement into Cameroon. Eventually roads leading to regional trade routes reopened, allowing armed convoys to the Cameroon and Chad borders. With the military's drive to push out insurgents, armed groups moved to villages surrounding Lake Chad, and people from those villages have moved to more inaccessible areas, leaving them unable to participate in normal trade. Insurgents have also now splintered into competing groups, contributing to the Union's hesitance to operate in these areas.

For transporters and traders, knowing the routes and the protocols around security checkpoints remains crucial. A transporter in North Borno on a journey from Kushari (Maiduguri) to Damboa will switch roads to avoid the police roadblocks and the potential insurgent attacks that roadblocks are there to prevent. Additionally, these roads are in extremely poor condition. "The security concerns have caused the distance we travel to increase as we use other routes. This makes the journey longer and requiring more fuel and manpower, so it's more expensive." A journey requiring a route change such as this might double the cost of transport. Transporters that can navigate the changes in routes and ensure that the produce can reach its destination in a timely fashion with minimal cost implications have become the most valuable players in the market.

At times, the military is the only source of information on security checkpoints, roadblocks, and restricted goods. However, protocol dicates that military routines need to change frequently and some transporters note that even military checkpoint officers do not always have the latest information. They are often just obeying orders from officials higher up in the chain. Some market actors sign formal registers with the security personnel to allow ease of passage, however this practice is not widespread.

FIGURE 3: ROAD REHABILITATION NEEDS IN ASSESSED AREAS

LGA	REHABILITATION NEEDS			
BORNO				
Maiduguri/Jere	Road serving Jere main market is in poor condition Road serving Kasuwan Shanu also needs repair			
Biu	There are bridges that have been destroyed and the roads serving Biu central market are in a poor state making it hard for vehicles to gain access			
Konduga	The roads are in a very poor state, the main road close to Mandarari market needs repair (Watch: security situation may not allow reconstruction at this time)			
Kaga	Monday Market in Benisheikh -roads leading to the market and bridges are in need of repair			
Damboa	Roads and bridges serving Damboa main market need repair. (Watch: security situation may not allow reconstruction at this time)			
Gubio	The roads are still good			
Monguno	Roads still acceptable			
Kwaya-Kusar	Roads serving Kwaya Kusar market and Peita market are in poor condition and need urgent reconstruction			
Askira Uba	Roads and bridges leading to Askira Uba central, Lassa market and Rumirgo market are bad. Reconstruction is needed Womdio market road has been damaged by rain and AOG attacks			
Chibok	Roads leading to Chibok main market are in need of rehabilitation. (Watch: security situation may not allow reconstruction at this time)			
	ADAMAWA			
Yola North	No need for repair			
Yola South	Roads serving Jimeta modern market, Kasuwan Buhu, Yola south market and Jumbulu market require expansion			
Jada	The road leading to Jeda market is really bad and thebridge leading to T.K market is destroyed			
Hong	Gaya road, Garaha road, Mubi road, Gombi road are in need of repair due to problems caused by rain			
Song	Road linking to the market is bad. Needs reconstruction			
Michika	Michika main market, Bazza main market and Garta market roads and bridges need reconstruction			
Ganye	Jada Ganye road, Ganye Jegguh road are in need of reconstruction			
Demsa	Jimeta main market and Demsa main market Roads need to be restored			
Mayo-Belwa	Mayo- Belwa market road needs to be restored			
Mubi	Kasuwan Dole and Kasuwan Kutru market roads need to be restored; Kauji 12km off the road is bad			
	YOBE			
Damaturu	Roads and bridges are still okay			
Potiskum	Roads and bridges are still okay			
Gujba	Roads are still in good condition			
Gulani	No need for repairs			
Nangere	Roads are still in good condition			
Yusufari	Roads are still in good condition			
Yunusari	No need for rehabilition			
Fune	No need for rehabilition			
Tarmuwa	Roads leading to Garga, Babban Gida, Chirokusko, Bumsa, Yadin Buni are in need of repair			
Geidam	Damaturu, Geidam Babban Gida, Nguru, Kuka reta and Gujba roads need rehabilitation			
Nguru	Road along Jajimaji needs repair			
Gashua	Nguru road, Potiskum road, Gashua road in need of repair			

Restrictions on Items

Earlier in the insurgency, certain items suspected of constituting a security risk were banned or restricted and these limitations continue today, including restrictions on motorcycles. This restriction dates back to 2014 and is codified in the 2016 October Road Traffic Crash report. The restriction is in in place to reduce accidents on the road caused by motorcycles. However, the major cause of accidents is often cited as being the poor quality of the roads, and the ban is in place to restrict people's movements. **Is "Besides their contributions to road accidents, they [motorcycles] have also been linked to the operations of armed robbers, kidnappers and other criminals in several parts of the country". **Is Motorcycles are not permitted in urban areas such as Biu and Maiduguri, although they may be used on the outskirts of town or in more rural areas. As a result, farmers, laborers, traders and aggregators have limited means to connect with homesteads, farms and the marketplace, which has a corresponding negative effect on the productive capacity of the farmland, as inputs cannot be purchased, yields are poor, and what is produced cannot be transported to the market to be sold.

Fuel restrictions have also been put in place. Fuel supplies are limited by the government, and can only be sold in small quantities determined by geographic area. Coupled with the threat of insurgents on the roads, people are conservative with fuel use and tend to travel less to market. Farmers in South Borno described how in 2015 the fuel ban meant there was a shortage of transport to get goods to the marketplace. This caused produce to perish before it could get to market and many farmers lost their income source.

Restrictions for Farmers

Farmers also continue to report a range of issues restricting their movement (see table below). The most significant were personal safety, road conditions, curfews and checkpoints, including the issue of hidden checkpoints, road traffic fees, bribes, and the increased cost of transport. IDP and returnee farmers generally faced these restrictions to the same degree as the host population. Fear for personal safety and recommendations from local government officials limit how far farmers are willing to travel from their homes to plant crops. Farmers in Borno and Adamawa report more restrictions on where planting may occur than in Yobe. This means that farmers are encouraged to plant within 10km of the town and in certain areas only 3km from town.

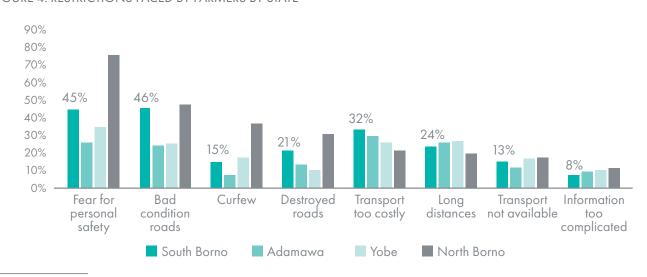


FIGURE 4: RESTRICTIONS FACED BY FARMERS BY STATE

¹⁵ FCT commercial motorcyclists to FG – Don't ban us from operating, Read more at: http://www.vanguardngr.com/2017/02/fct-commercial-motorcyclists-fg-dont-ban-us-operating/, 17 February 2017

¹⁶ FRSC seeks nationwide ban of commercial motorcycle, 31 January 2017, http://www.vanguardngr.com/2017/01/frsc-seeks-nationwide-ban-commercial-motorcycle/

For women producers however, the fear for personal safety and concerns around travelling long distances were greater as women are the main household caregivers, and are unable or unwilling to leave the home for long periods of time. In addition, there are significant cost implications when travelling over longer distances and women, due to lower incomes, may not be able to cover these costs.

While farmers may use almost any means of transport (donkey, bicycle, pushpush, motorcycles, keke napep, car) traders use more formal transportation services when carrying large quantities of goods over long distances. Trucks are the preferred option for transporting loads of 2 metric tons or more over longer distances (≥100km). The assessment found that transport options were available, but the ability of people to use these was limited due to cost and insecurity. For example, in North Borno fuel shortages doubled the price per liter, while in Kwaya Kusar truck transport fees increased by 60%, largely due to the increase in the price of fuel. Some transporters did not want to go long distances due to security issues. A typical small transporter would use a pick-up truck to transport 5 to 10 customers per day before the insurgency, whereas now it is closer to 3 customers or fewer. One transporter in Damboa would travel 50-60km per day before the insurgency, transporting goods to various villages. He now travels no more than 10-15 km in a day. The rates for transportation between locations vary as prices generally depend on the volume of goods being transported.

Impact on Trade Levels

Although input suppliers are beginning to report increased sales compared to a year or two ago, pre-insurgency levels of business have not fully recovered. The destruction of markets has reduced economic activity overall, as has ongoing insecurity in the Northeast. The Transport Union still considers the Northeast risky, although Adamawa is considered stable. The Union estimates that 70% of its business has recovered. Despite continued security concerns, trucks are travelling daily to all LGAs in Yobe and Adamawa, and 23 of 27 LGAs in Borno with the exception of Bama, which is still considered a trouble spot by the Transport Union. In the LGAs bordering Lake Chad however, trucks often can only travel under escort. The Chamber of Commerce and Industry described how prior to the insurgency there was a vibrant market in Maiduguri that served Chad, Niger and Cameroon. Borno, Adamawa and Yobe did little trade with the rest of Nigeria and instead focused on cross-border trade. Nearly all trade in the Lake Chad basin was done through Borno State. Large volumes of export trade went to the region from Maiduguri, and Nigerian traders provided most of the goods in Chad and Cameroon. These trade contacts existed for centuries, and were fostered by individual trading families. Through these long-standing trade connections, Nigerian traders sold goods to Chad, Cameroon, and Niger for centuries as part of the Trans-Saharan trade, with goods delivered through this route to Central and Eastern Africa. Currently, these trade routes mostly remain cut off due to insecurity, but remain an important livelihood consideration.

It is not just larger traders affected by the insecurity on roads, it has impacted all kinds of business. An input supplier in Kwaya Kusar stated during the survey that although there has been a small increase in customers returning to him after the insurgency, demand for deliveries to villages has decreased significantly, and there are customers he simply can no longer reach.

Many traders also complain about the speed at which cereals and vegetables can be transported, which has significantly reduced due to poor roads, re-routing, and checkpoints. Transporters are finding that perishable items are spoiling due to the increased time for transport. One trader commented that previously he would travel to all the weekly markets around Guijba LGA to sell cereals and vegetables. Now he only delivers to the main market in order to reduce the distance he travels and to ensure perishable produce is delivered when still fresh. This obviously means that food - particularly nutritious vegetables - are less accessible to more vulnerable groups unable to travel to the main market.

The purpose of checkpoints is, of course, to prevent incursions by insurgents and reduce ambushes on the road. In South Borno, input suppliers continue to report Boko Haram attacks on the Damaturu-Buni Yadi road. One supplier interviewed during the survey explained how he was asked by the military at the checkpoint to return to Biu while he was on his way to deliver inputs. Although he was safe, as a result of turning around his customers were not able to get the inputs they needed for their farms. In North Borno, a transporter reported that the military sometimes stops food trucks in certain areas, and there are often restrictions on foods authorized to be transported. This transporter had been unable to find information required to adapt to the closures: "the military is the only one who has the information required."

In South Borno, a transporter was unable to reach several recently reopened marketplaces due to additional rules and restrictions enforced by the military and CJTF (Civilian Joint Task Force). He found that to carry goods to any of these marketplaces, he must now get clearance from the CJTF. This means time is lost in following the new protocols, and additional fees that must be paid. Some roads are now reopening, such as the Maiduguri-Dikwa-Gamboru road, which had been closed for three years. To support economic recovery, the Transport Union has arranged with its members to temporarily reduce the cost of transportation from Maiduguri to Gamboru-Ngala from NGN 6,000 to NGN 2,000. Towards the end of 2016, the Governor of Borno ordered the rehabilitation of township roads in Biu and the construction of the 40 km Miringa-Gunda road and bridges to be completed in 2017. The opening of these major roads is a reassuring sign of progress.

RECOMMENDATIONS AND RESPONSE OPTIONS REGARDING INSECURITY AND RESTRICTED MOVEMENT

- 1.1 Continue work with government to reopen trade routes, both internal and cross-border.
- 1.2 Repair road infrastructure.
- 1.3 Reduce delays at legitimate checkpoints and increase transparency.
- 1.4 Increase information flows between military and transporters so that alternative routes (particularly for perishable goods) can be taken when roads or checkpoints are closed, and/or required paperwork can be completed more efficiently.
- 1.5 Provide capital support to replace lost assets for small transporters, especially those working in remote or underserved areas.

RESPONSE OPTION (AND TIMING)	POTENTIAL PARTNERS	RISKS AND ASSUMPTIONS	EFFECT ON MARKETS AND POPULATION
Provide Cash for Work (CfW) or public work projects for road rehabilitation that re-establish market relationships and trade infrastructure, such as feeder roads that connect marketplaces or main road networks to farms. Local community should be hired whenever possible and appropriate technical support given to ensure quality This activity can begin immediately in areas where threat of insurgency is low, but work schedules should be planned with respect for farm labor needs, and should not undermine farmers' ability to plant, tend, or harvest crops. Priority should be given to areas that had dynamic market systems before the crisis Immediate, ongoing	LGAs, youth groups, farmers associations, women's groups, public and private road companies	Some infrastructure may require skilled labor and greater expertise than CfW can typically provide Ongoing conflict in many areas could re-damage or destroy newly rehabilitated or constructed infrastructure Large work groups could be a soft target for insurgent attacks in areas that remain insecure	Increased access to markets and farmland, increased market functionality leading to increased flow and access to goods and inputs as well as increased income for traders and households Labor and income opportunities, although short term, for large numbers of people
Support trader groups and transport associations to negotiate easier passage through checkpoints; streamlining and clarifying procedures in order to reduce unnecessary delays. For example, closer collaboration with the military in order to secure a "Road Pass" prior to the date of transporting goods especially perishable ones Immediate, ongoing	Trade Unions, Transport Union, Government, Advocacy units of NGOs	Assumes checkpoints remain in place Needs to ensure inclusive participation of traders	Increased trade flows for consumption and sale of goods
Create dialogue, improve negotiation skills and accountability to reduce corruption at checkpoints and decrease barriers for small traders and women. Immediate, ongoing	Military, Trade Unions, Transport Union, Government, advocacy units of NGOs	Feasibility uncertain given broader challenges with corruption Assumes checkpoints remain in place	Improved access to markets and increased movement for women Increase in trade flows for consumption and sale of goods
Support trader groups to identify ways to open international trade routes where possible, and leverage existing trade relationships to jump start trade relationships, as well as improve import policies and their implementation through dialogue and support to the State Government and LGAs Immediate, ongoing	Trader Associations, government authorities	Assumes that the harvest will be productive enough that excess can be sold/traded	Increase availability of food in famine- vulnerable areas Re-establish markets and increase incomes once harvests available for exports Could support import of needed inputs
Provide capital support (matching grants or loans) for transport enterprises and pair this with training of traders on value addition, export standards for various products, exportation guidelines and procedures, how to utilize institutes that promote exportation (e.g NEXIM, NIRSAL, NEPC) Immediate in areas with minimum levels of security	Financial institutions, transport association	Will need to be careful about the level/type of subsidies or system will become dependent	Increase the flow of goods, increasing local incomes, and improve market integration and trade routes for all actors

Restrictions on Marketplaces and Economic Activity

Key Finding: Market activity remains constrained by the physical destruction of marketplaces and storage facilities, as well as curfews that prevent trade from taking place during the late afternoon and early evening.

Market Infrastructure

Many believe that Boko Haram intentionally targeted market infrastructure to cripple trade routes and trade relationships. Nearly every type of infrastructure – markets, phone towers, banks/MFIs, electricity tower, roads, input supplier shops, public transport vehicles, warehouse storage, fuel stations, water pumps, and factories – were hit during the insurgency.

The assessment found that for over 80% of farmers interviewed, their preferred or most frequented marketplace closed during the insurgency. Market outlets that were destroyed were typically closed for between 9 to 12 months. Women and IDP and returnee farmers experienced restrictions differently to the overall average, with a slightly higher incidence of marketplace closures. Other market actors responded similarly to farmers, with 75% of input suppliers and traders reporting that the marketplace they normally used was closed during the insurgency. However, they reported slightly shorter closures of six to nine months, which may be because traders generally work in multiple markets, while farmers may not.

Throughout Adamawa, Yobe, and Borno there are signs of recovery. In general, most businesses report having more customers than during the insurgency, although they are spending less. Given the significant physical damage to market structures during the insurgency, recovery will quickly level out unless these are rehabilitated, particularly in "feeder markets" that serve as a stocking point for multiple smaller markets. For example, in Damaturu in Yobe, over 650 shops are reported as damaged. Returning traders have started to reconstruct some of the shops and vendor stalls that were destroyed, but the task is far beyond individual resources. In Monguno in Borno, the marketplace was completely burned down during the insurgency, and has not yet been rebuilt. In places where much of the market infrastructure was government-owned, such as North Borno, market actors are unlikely to rebuild or reinvest spontaneously, as this is seen as the responsibility of the government. In other areas, small businesses are using their savings, with some assistance from relatives, to rebuild their shops. One input supplier explains: "Shops are makeshift and do not require much skill to reconstruct, however it is still necessary to employ laborers to certain key activities." He hired skilled labor at NGN 12,500 to build a temporary structure to stock and sell his products until he can afford concrete for building materials. In Damboa in Borno, an inputs supplier provides an excellent example of the resilience of these market actors: "I had no money to start again so I started working as a laborer. I am also a farmer, I farmed and I sold my farm produce. I started slowly re-stocking with inputs. When I didn't have the required capital to buy all the inputs at once I also took credit. Through farm produce sales, my work as a laborer and the credit I took, I restocked my shop and fixed it back up."

About half of key informants said that the storage available in their area had consistent problems with aflatoxins, so storage upgrades and training to improve storage management, particularly for household and community-owned facilities could improve incomes and food security in these areas. Specific locations where storage facilities need to be rebuilt can be found in the chart below. Storage is either commercial (fee for service, around NGN 100 per 25kg bag), community-owned, or within the household, with a few government-run facilities. Community-owned facilities are not common in Borno, but there are several in Yobe and Adamawa. Commercial or government-run units were regularly used prior to the insurgency, and were seen as a secure place to keep food and cereals. Many of these were destroyed or now need significant rehabilitation. In Yobe in particular, lack of storage was frequently mentioned by businesses as a barrier to recovery.

FIGURE 5: ASSESSMENT LOCATIONS REQUIRING MARKET REHABILITATION ACTIVITIES

LGA	MARKET REHABILITATION/STORAGE FACILITIES	JUSTIFICATION FOR REHABILITATION
	BORNO	
Maiduguri/Jere	Marketplaces need rehabilitation: potential for marketplaces to be restored More shops need to be built and WASH facilities improved	High Priority. Major feeder market (Watch: security is still a concern)
Biu	Improved shops and storage are needed	High Priority. Major feeder market
Konduga	New shops need to be built and security in the market place needs to be improved	Watch: High priority but still volatile
Kaga	WASH facilities and more modernized shops are needed	High Priority. Major feeder market
Damboa	The markets need rehabilitation, shops need to be renovated Storage is insufficient, storage facilities need to be built	Watch: High priority but still volatile
Gubio	No market restoration needed.	Low priority
Monguno	Power supply and WASH facilities are needed in the markets.	Medium priority
Kwaya-Kusar	Market facilities (shops, storage, WASH) need to be modernized	High Priority. Major feeder market
Askira Uba	The markets need rehabilitation, shops need to be renovated Storage is inadequate and insufficient, storage facilities need to be built	High Priority. Major feeder market
Chibok	Modern facilities such as shops, storage, WASH amenities, and better security are needed in the markets	Watch: High priority but still unstable
	ADAMAWA	
Yola North	Jimeta modern market is okay. Kasuwan Gware needs rehabilitation	High Priority. Major feeder market
Yola South	Markets need improved storage and WASH facilities	High Priority. Major feeder market
Jada	WASH facilities, more modernized shops and improved security are needed	Medium priority
Hong	The market is not big enough, expansion is needed	Medium priority
Song	Market needs restoration	Medium priority
Michika	The markets need rehabilitation, shops need to be renovated Storage is insufficient, storage facilities need to be built	High Priority. Major feeder market
Ganye	Modern facilities such as shops, storage, WASH, better security is needed in the markets	Medium priority
Demsa	Modern facilities such as shops, storage, WASH facilities are needed	Medium priority
Mayo-Belwa	Modernized facilities are needed	Medium priority
Mubi	Modern shops, WASH facilities, improved security needed (police stations, fire stations)	High Priority. Major feeder market
	YOBE	
Damaturu	Marketplaces need to be modernized; current facilities are crude	High Priority. Major feeder market
Potiskum	There are three big markets in Potiskum: Potiskum main market, NPN market, Grain market	High Priority. Major feeder market
TOHSKOIII	Grain Market is using temporary structures (including storage facilities) as a result, farmers selling from own private property. Market structures need to be brought up to standard	riigii riioiliy. Major leedel ilidikel
	In Potiskum and NPN Market there is very little community-owned storage and no specialized storage, most facilities are privately owned. Storage facilities are not suitable because product is not adequately protected during the rainy season because of poor quality roofing	
Gujba	Markets need to be modernized	Medium priority
Gulani	Grain stores are needed. Markets need to be expanded	Medium priority
Nangere	Some facilities need renovation such as the shops and the market needs to be better organized	Medium priority
Yusufari	Modern building and WASH facilities are needed	Medium priority
Yunusari	Better market shops and storage facilities are needed	High Priority. Major feeder market
Fune	Better market shops and storage facilities are needed	High Priority. Major feeder market
Tarmuwa	Bigger grain stores are needed	High Priority. Major feeder market
Geidam	Modern storage facilities are needed	High Priority. Major feeder market
Nguru	New storage facilities need to be built	High Priority. Major feeder market
Gashua	Markets need complete rehabilitation. New storage facilities need to be constructed	Medium priority

Infrastructure that creates employment and supports food security efforts should be prioritized for humanitarian assistance, although communities should be drivers for prioritizing the rehabilitation of local infrastructure. Marketplaces and storage facilities were underdeveloped prior to the insurgency, but rebuilding both private and public storage facilities and improving sales points like small businesses and marketplaces is likely to spur recovery and build local resilience against shocks, given that such a high percentage of farmers sell locally. The willingness of individuals and communities to contribute to the rehabilitation efforts is likely to be a proxy indicator for the risk associated with rebuilding.

Closures and Curfews

The assessment found that across the Northeast, security forces comprised of the military, the CJTF, and the police are still setting the rules and enforcing restrictions around marketplace functions. In many parts of the Northeast, major markets have reopened but traditional market days are banned in a number of cities, including Damboa, Monguno, Konduga, Mafa, Jere, and Maiduguri. This is done to disrupt routines and throw off insurgents, but also disrupts normal market operations too. Marketplaces are operating only on the days that the LGA authorities approve.

There are still curfews in many locations and many marketplaces are not able to operate at night. The curfew times will vary according to the situation, and may be put back in place after several weeks or months without a curfew. For example in Konduga, market curfews were imposed in August after multiple suicide bombings took place. In some areas, curfews start as early as 4pm and run until 7am or 8am the following day. For many, this means there are only six hours available in which to carry out work. Other curfews may start later, for example around 6pm, but these closures still have a significant impact; temperatures are lower in the evening and much more economic activity occurs. An early closure is a lost opportunity for many inputs suppliers, vendors, traders, and transporters. In certain places in North Borno, there are reports that roads were closing as early as 2pm.

Although, the motivation behind the rules and restrictions was to provide more security in the regions that have suffered from insurgent attacks, the assessment found that for many market actors, the restrictions imposed by security forces have increased "economic hardship" by creating additional barriers to trade and increasing costs. Insurgency attacks have continued into 2017 for about a third of the LGAs surveyed, as a result, the restrictions remain in place.

Banned and Restricted Items

In addition to road restrictions and market closures, there are a number of goods that are banned or restricted due to security threats. For example, tall farm crops, such as maize, cannot be grown in certain areas as they provide an easy hiding place for insurgents. Trucks carrying food, fertilizers, certain chemicals such as herbicides, and fuel or petrol may be stopped if they do not have a license with an official cover letter from government officials or permission from security agencies. For example, in Kwaya Kusar, certain goods were restricted due to the high risk of traders supplying insurgents. A trader in Damaturu also explained that food items such as spaghetti, macaroni, Indomie noodles and other manufactured food items are provisions that are likely to get stopped as these are quick-cooking items preferred by the insurgent groups. Traders and transporters have to work with their respective association leaders to negotiate clearance and permission to move with such items. In North Borno, a processor said that in the last three months there has been a restriction on bringing food into Monguno from outside. As a result, the only food that can be sold is the existing stocks that households, traders, and processors have built up over time.

Due to the concerns about its potential use in making explosive devices, chemical fertilizer is also a restricted item, and only the government or government-authorized entities are allowed to transport it. These rules are set

by the military and applied at checkpoints. As one farmer put it: "Even if you have money to buy it, you cannot get it. Fertilizer is linked to Boko Haram bomb-making in some way. If the Military found it at a checkpoint they will confiscate the goods." In addition, only registered distributors can sell fertilizer as a result of the Presidential Fertilizer Initiative (PFI), which came into force at the end of 2016 after the signing of an agreement with Morocco designed to support domestic fertilizer blending and production. It is unclear whether the new rules under the PFI are contributing directly to the shortages of fertilizer in Adamawa, Yobe, and Borno, or whether it is just a distribution issue related to the security rules regarding transport. However, in the last planting season (June-July) FAO distributed 3,500 tons of fertilizers to vulnerable farmers in 46 LGAs, reaching 1.1m people.¹⁷

For the moment, the restrictions on banned items do not seem to be shifting much, though restrictions on the movement of large trucks have abated somewhat. The chart below shows the extent to which farmers, traders, and transporters face restrictions on certain goods, comparing the height of the insurgency and now.

FIGURE 6: PERCENTAGE OF FARMERS REPORTING ISSUES WITH RESTRICTED ITEMS

Restricted Items	BEFORE	DURING	NOW
None	73%	2%	5%
Motorcycles	13%	27%	37%
Fertilizer	5%	17%	15%
Petrol/fuel	5%	15%	13%
Food imports	5%	10%	9%
Animals	5%	8%	8%
Truck/large vehicles	1%	8%	4%

Illegal Fees and Bribes

"For those areas with security challenges, to be able to pass from one market to another you have to 'drop something' (pay a bribe). If not, you will be delayed unnecessarily especially when you have perishable goods in your truck or vehicle. So, to get free and fast access the marketer needs to settle illegally or he will be delayed until the market closes or his goods perish. This is not a formally agreed practice, but it exists."

- An INGO, Yobe, 2017

A small transporter in North Borno explained that he pays about NGN 100 – and much more for heavier loads – in order to pass each checkpoint. Since he typically passes about five checkpoints per day, he can end up paying between NGN 500 and NGN 1,000 in bribes daily. This ends up making the produce he transports more expensive in the marketplace. Sometimes, transporters do not have the money to pay bribes, and thus end up changing their routes. For example, one transporter now uses Bama Road to go to Damboa. Although this is not a good quality road and the journey takes longer, the cost is reduced overall through the saving of bribes and time lost stopped at checkpoints.

¹⁷ https://africanharvesters.com/2017/06/23/nigeria-fao-distributes-seeds-fertilisers-million-people-Northeast/

Some individuals who have the resources and the expertise are now smuggling products that are in high demand. The assessment also heard of illegal fees being collected by security escorts, which were initially understood as legal by market actors. This fee is around NGN 500 and is collected from all vehicles that the security forces escort from Maiduguri to Damboa. However, the escort should be a free service provided by security forces.

Illegal fees and bribes should not be confused with official fees paid by market actors operating on the roads. There are legal checkpoints put in place by state and local government tax collectors. In some cases, they are run by transport union and marketing board officials who in turn remit these funds to government accounts. These checkpoints usually give out receipts. Where no receipts or incorrect receipts are given out this is normally indicative of some level of corruption. While an intervention to address corruption would be difficult to implement, clarity regarding official restrictions and roadblocks would diminish opportunities for illegal bribes. The government, in collaboration with trade associations and aid organizations, may have the opportunity to increase public awareness on banned or restricted items in order to further limit bribe opportunities.

RECOMMENDATIONS AND RESPONSE OPTIONS REGARDING RESTRICTIONS ON MARKETPLACES AND ECONOMIC ACTIVITY

- 2.1 Facilitate community meetings to discuss and prioritize reconstruction needs in specific locations, and share this information with all actors engaged in response. Women and youth should be well-represented at these meetings, but so should larger market actors such as traders and input dealers.
- 2.2 Provide Cash for Work and public works projects to rebuild market structures that represent a public good.
- 2.3 Provide competitive cost-sharing grants to community groups to rebuild private storage facilities and other market infrastructure. 18 Provide affordable credit to businesses to encourage reconstruction and recovery of the private sector (see recommendations in credit section).

RESPONSE OPTION (AND TIMING)	POTENTIAL PARTNERS	RISKS AND ASSUMPTIONS	EFFECT ON MARKETS AND POPULATION
Facilitate community meetings to prioritize localized reconstruction needs Immediate	LGAs, youth groups, farmers associations, womens' groups, Chamber of Commerce	Assume will be able to get adequate representation from all relevant groups. Risk that women may not feel empowered to speak up regarding their priorities	Will create buy-in and reduce the potential for conflict based on the perception of unfair distribution of aid
Provide Cash for Work (CfW) and public works on market infrastructure. CfW projects should be focused on infrastructure that improves marketplace functionality or access. For example: • Market sanitation facilitie • water and waste management infrastructure • Fire emergency facilities • Where appropriate, communal marketplace buildings Local community should be hired whenever possible Immediate, in areas where threat of insurgency is low Planned around seasonal calendar, women's responsibilities and on-farm labor opportunities so as to avoid undermining the labor market.	LGAs, youth groups, farmers associations, womens' groups, public and private road companies, Environmental Protection Agency	Some infrastructure may require higher skill and expertise than CfW can typically provide Ongoing conflict in many areas could re-damage or destroy newly rehabilitated or constructed infrastructure Large work groups could be a soft target for insurgent attacks in areas that remain highly insecure	Increased access to markets and farmland, increased market functionality leading to increased flow and access to goods and inputs as well as increased income for traders and households Labor and income opportunities, although short term, for large numbers of people
Offer competitive matching grants to community groups and market actors, targeted to support the re-establishment of marketplace activities, particularly those that relate to rural or hard-to-reach farmers • Consider distributing funds in tranches, with receipt of later tranches conditional on the first tranche being spent as agreed • Should be accompanied by capacity building around business planning Can be done immediately or as a later part of a staged roll out of recovery package	Traders associations Small and medium enterprises	Assumes tranche mechanism is sufficient to ensure traders invest in rebuilding their businesses	Increased flow of goods (including produce) and inputs Increased access to goods on credit for households

¹⁸ Mercy Corps' RAIN program in Uganda (2011-2015) provides a good model for community-owned storage facilities, as the recovery context and impact on farmers is similar to NE Nigeria

Limited Access to Agricultural Inputs and Extension Services

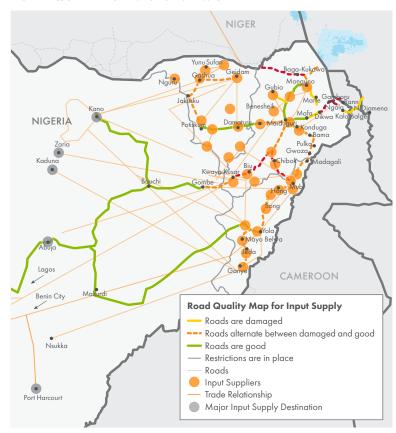
Key Finding: Agricultural input supplier networks are not fully operational due to transport and road issues and systemic weaknesses. Extension services are nearly non-existent and land access is limited. The combination of these issues contributes to ongoing food insecurity.

Input Supply

The assessment found that the most common issue reported by farmers is the lack of access to appropriate inputs – especially fertilizer and seeds. It also found that during the insurgency around 30% of farmers changed the locations where they purchased seeds and fertilizer: for seeds, farmers were now more likely to get seeds from friends and neighbors or the village marketplace than before the insurgency. Only 12% received seeds through government aid prior to the insurgency and only 1% from aid agencies, indicating that market mechanisms were working, although needing quality improvements. Some can get fertilizers through the village marketplace, but many farmers could not get fertilizer at all due to the restrictions described above. Less than 10% of farmers reported getting fertilizer from government extension officers. Before and during the insurgency, the number of farmers who got free fertilizer from government officers was slightly higher than today. A more detailed discussion of the agricultural inputs market can be found in Annex 2, including a market map describing the supply relationships on page 70.

Input suppliers are an important link in the supply chain, as they provide smallholder farmers with access to a variety of inputs, often with the embedded required credit to obtain them. Only 15% of input suppliers reported that the inputs they sold changed because of the insurgency; generally, this meant that more local seeds were sold. This is likely due to supply issues. The supply of fertilizer, pesticide and herbicide also dropped to about half during the height of the insurgency, and has not fully recovered. The map to the right marks the location of input dealers interviewed for the assessment and where they obtain inputs to be sold. It is relatively easy to see that where the roads are in good condition these links are direct (between Damaturu and Maiduguri for example). However, where the roads are in poor condition, relationships have been built to work around the problem, although it adds significantly to the distance goods must traveled and the total cost of inputs.

ROAD QUALITY & INPUTS NETWORK MAP



In the qualitative research portion of the assessment, lack of knowledge around input usage at farm level emerged as a key factor affecting input use. Farmers and input suppliers alike reported that many farmers do not understand the most appropriate type or use of fertilizer, seed and pesticide required for their needs. As a result, they tend to not purchase inputs, or if they do they buy the incorrect ones, nor adhere to safety standards when applying on crops, or rely on aid distributions to deliver inputs that they hope will address the need in question.

The graph below shows that hybrid seeds are less commonly purchased than local seeds. This is consistent with the EGS Study, which indicated that only about 20% of Nigerian farmers are using hybrid seeds (mostly maize). This is not surprising given the amount of seed saved, but does mean that seeds immediately available are less likely to include drought-resistant or high-yield varieties, which have been available in the market since 2014. Adoption is very low due to low farmer awareness and limited seed supply. Hybrids also require greater inputs (e.g. fertilizer), which is currently a restricted good. Providing access to higher quality seed and targeted training could significantly boost crop production and improve food security.

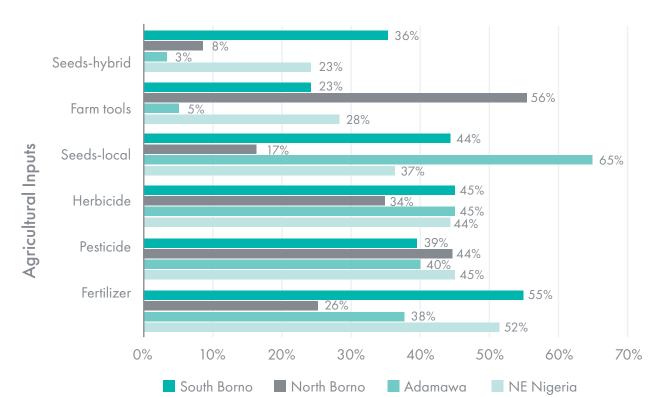


FIGURE 7: WHAT INPUTS DO YOU SELL? INPUT SUPPLIERS BY REGION

The assessment found that the weak input sector significantly inhibits farm production. On the supply side, input suppliers have struggled to stock products due to security issues affecting supply lines. On the marketing side, inputs suppliers lack rural outreach and marketing strategies to distribute their products over 'the last mile' and into the hands of rural farmers. There is a lack of affordable transportation for inputs at village level, and a lack of effective training and knowledge dissemination mechanisms to build the capacity of farmers. The assessment also found that many input suppliers sell only a single product. In fact, only 15% of input suppliers sell more than two types of inputs at a time. This means farmers must visit multiple input dealers to get the inputs they need. To improve farmers' access to inputs, appropriate interventions could include supporting input suppliers to use more diverse business models and marketing strategies, as well as exploring the viability of expanded agent networks.

Improved knowledge of inputs often drives increased demand for quality inputs. If farmers do not understand the benefits of improved inputs, they will not have any reason to invest in improved quality seeds, for example. In turn, input suppliers will not stock items that do not sell. Input suppliers will not be incentivized to create value and widen the portfolio of inputs sold, nor will they ensure adequate stocks on inputs are in place for peak farming periods, offer price promotions, or bundled services such as payment plans.

In general, farmers pay cash for inputs. However some farmers reported that they occasionally exchange their labor for inputs. For example, in North Borno, a producer said, "We could get fertilizer from the market vendors and then work on their farms in payment." There are also credit mechanisms available for customers. The assessment found that 75% of input suppliers provide credit to their customers and it is considered a "normal way of doing business," and many continued to do so throughout the insurgency, although the amounts were smaller and only well-known and trusted customers would receive credit. Depending on the size of the input supplier and type of customer, sums borrowed ranged from NGN 5,000N to NGN 3 million. In Borno, there are still a significant number of input suppliers who provide goods on credit but far more input suppliers in this area described trust issues and poor customer repayment as the reasons for no longer providing credit. (For more on credit sales for inputs, see the credit section under finance later in this report.)

During a crisis, more informal sharing and distribution is also likely to occur amongst friends and neighbors. The assessment found some anecdotal evidence that during the height of the insurgency, farmers would work on land in exchange for cash, food, and seeds. In other cases, farmers who needed seeds could get them from friends and neighbors and then pay them back in labor or food if cash was unavailable. This practice was not carried out formally – the sharing of seeds was more an act of compassion rather than a means of revenue generation. In future programming, social capital networks, such as existing associations and formal and informal women's groups could be a key channel for spreading agricultural practices and encouraging resource sharing. It will be important for implementers to maintain an understanding of how these social capital networks affect behavior for target groups, including IDPs and women.

Fertilizer

Despite the demand for hybrid seeds, without appropriate fertilizer and farm chemicals, production levels will not be significantly different from traditional varieties, and the increased cost will be unjustified. Therefore, restrictions on chemical fertilizers are a serious concern. Because chemical fertilizers are restricted due to security concerns, it is essential to identify alternatives as this is likely to continue until the security situation stabilizes. Humanitarian actors should consider supporting farmers and small traders in exploring alternatives to ammonium nitrate-based fertilizers: sourcing and distribution of organic fertilizers, intercropping that creates natural fertilizers, and other fertilizer compounds that do not rely on ammonium nitrate. The assessment found evidence that input suppliers in Yobe and Adamawa are buying animal waste, packaging it for farmers, and selling it more cheaply than chemical fertilizers. ¹⁹ It is recommended that implementers look into supporting this type of initiative, perhaps by linking herders and farmers, so that greater volumes of natural fertilizer can be accessed.

Land Access

There is general consensus among farmers and input dealers that there is plenty of land available for planting, however the security situation remains the main barrier to full use of that land. In many cases farmers are planting only the part of their land closest to town, or may be raising crops on land that is not their own. Many LGA

¹⁹ Input suppliers reported that bagging of natural fertilizers is being done in Mubi, Ganye, Marrarruwa, Jeda, Song, Michika (Adamwa); Gashua, Yusufari, Damaturu, Maduri, Don Etiebet, Potiskum, Nangere (Yobe). None found in Borno

administrations have recommended that farmers do not plant beyond a secured radius of the town. As the security improves, these restrictions should be lifted. The size of the secured area ranges from a distance of 3km to 10km from town, depending on the local security context, with restrictions more commonplace and stringent in Borno. The assessment found that farmers travel on foot an average distance of 6km to farmland, a journey takes over two hours in total. The result of these security restrictions is of course that not all arable land is being planted, despite ongoing food security concerns. Details on the relative access to land can be found in Annex 3.

Another potential restriction, particularly acute for more vulnerable groups, is that land near safe travel zones can be in high demand, which drives up land rental costs. As a result, some farmers do risk planting land further away, which further alienates women and IDPs from engaging in agricultural activities. In Konduga, a producer reported that despite the restrictions, he accesses land up to 20km away. In doing so, "...there is constant fear of a Boko Haram attack on the farm. Recently, there has been violence including theft of farm produce and tools. Only a few days prior [to this interview] a neighbor was chased off his land by Boko Haram insurgents."

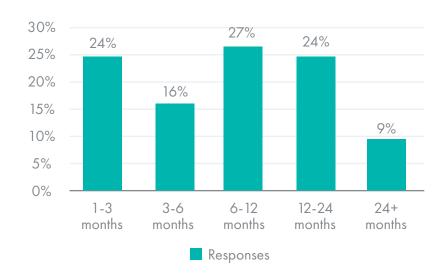
When asked who they get additional land from, around 80% of those surveyed reported that they gain access to land from another actor in the system: 60% through family, friends and neighbors; 20% from village and community groups or elders; and nearly 20% from other farmers and farmer groups. Very few farmers get land through governing structures—local government structures or via extension officers—or through the private sector as an embedded service (i.e. from traders or input suppliers). The assessment found that women and IDPs get land from the same sources and in similar patterns. However, slightly more women and IDPs rely on family, friends and neighbors.

Farmers can also acquire access to land by working the land with or for the landowner and sharing the harvest or profits. A producer in Yobe explained that he previously rented his half-hectare of land for between NGN 10,000 to NGN 20,000 a season. However, over the last few years, the price has almost doubled, ranging between NGN 25,000 to NGN 30,000. About 50% of farmers do not pay for land at all, probably because they access it through family or social connections. Up to 30% of farmers pay cash for land use, and about 20% pay through harvest-sharing. The assessment found that fewer women and IDPs could get access to land cost-free and were more likely to pay for land through harvest sharing, with nearly 25% of women paying for land through harvest-sharing.

There are several factors that affect the way women and IDPs access land compared to male farmers and the host community. In some households, women support the men as workers on the farm. In other households, women are allocated a specific piece of land to farm, with control over the land they are working on. Some women farmers in South Borno reported that: "Women work on their husband's farm in the mornings from Monday to Thursday and then, she would work on her own farm on Friday, Saturday and Sunday. In the evenings, she may work on either." Farmers who can travel long distances might have more land to choose from, whilst some women who may be unable to travel long distances might have access only to land closer to home, even if the land is not fully suitable for their needs.

IDPs may also be less likely to have the relationships that would help them get free access to land. As a result, they are more likely to enter into sharecropping agreements. It is common for all farmers to have multiple pieces of land, making it easier for them to allocate a piece of land to IDPs (particularly if there are family ties). For example, one producer in Damboa described how he uses different fields for different crops: his maize field is 6km away, the groundnut field is 4km away and the Bambara nut field is 2.5km away. These different planting strategies also help ensure resilience in the face of potential crop failure. In Borno, the host communities are generally land owners, and land is being shared with IDP farmers through crop-sharing and other rental arrangements. In Yobe, the host community landowners give 10 per cent of harvest as payment for labor and so IDP producer-laborers are paid in food rather than cash.

FIGURE 8: LENGTH OF TIME LAND HAS BEEN INACCESSIBLE FOR THOSE UNABLE TO ACCESS ALL FARM PLOTS



The length of time that farmers were unable to access land also likely contributed to food insecurity in the area, and has undermined household resilience. Sixty-seven percent of farmers were unable to access land for between 1-12 months. This percentage holds roughly true for women and IDPs as well. A small number of farmers (around 10%) reported restrictions spanning two to five years, indicating that there were some land access limitations from the earliest days of the insurgency.

As mentioned above, the assessment found that most

farmers currently live on average 6km away from their farmland. Only a small group of farmers reported that farmland is more than 25km away. There were no significant differences for women and IDPs or returnees. The assessment also found that a quarter of farmers reported changes to the distance traveled to access land because of the insurgency. Of these farmers, before the insurgency, they were travelling 11km to access farmland and during the insurgency, they were travelling 7km. Now, in line with the general population, the same farmers are on average 6km from their farmland. There is a correlation between the occurrence of the insurgency and farmers seeking out land closer to the homestead.

The assessment recognizes that there are other reasons why distance to farmland might change aside from the insurgency. Farmers might opportunistically move to abandoned land (related or unrelated to insurgency), or farmers might be taking up family plots closer to home (especially women). On balance, the assessment cannot attribute land distance changes to the insurgency. However, there is adequate evidence to suggest that the insurgency may have been a catalyst to drive significant numbers of farmers to stay closer to home. The advantage of this coping mechanism is that as well as an increased sense of security, transport costs and time are reduced. This does not necessarily mean that farmers are better off overall, as they may face increased rental costs, lower quality soil, or lack access to additional inputs.

The data suggests that the shifts in land access during the insurgency may have reduced input usage, as farmers chose not to invest in soil conditioning or irrigation equipment. Studies have shown that ownership of land for agriculture or long-term lease can increase investment and youth participation in agriculture. Growth in production in Nigeria has been attributed largely to farmland expansion rather than to an increase in actual productivity, so increasing productivity through assistance can have immediate food security benefits, as well as longer term increased investment and youth employment.²⁰

Putting Nigeria to Work: a strategy for employment and growth; http://documents.worldbank.org/curated/en/636251468333316118/Putting-Nigeria-to-work-a-strate-gy-for-employment-and-growth

Equipment

Prior to 2014, all LGAs in Borno were involved in the agriculture sector. The state government invested heavily in the sector through the procurement of machinery such as combine harvesters and tractors. During the insurgency, 22 LGAs fell under the control of armed groups and farming activities were severely limited apart from in the two southern LGAs of Hawul and Biu. Equipment procured by the Ministry of Agriculture is still intact, and the vast majority of it remains in storage, brand new and unused. (Please note the response option in section 4. Limited Access to Financial Services that addresses this issue.)

Labor

Agricultural labor in the Northeast is generally a low-skilled activity done manually with hand tools. It includes plowing, tilling, planting, weeding, irrigation, harvesting, threshing, packaging, storing, cleaning and processing, and loading and unloading. For some households, casual labor is a primary income strategy. For others, it is a coping mechanism; a source of income when primary income strategies prove insufficient. Increased investment in agriculture will lead to a demand for more agricultural labor. Cash injections into the system are likely to encourage farmers to purchase more (and improved) agriculture inputs, which is likely to increase the need for agricultural labor. For communities where a significant proportion of agricultural labor is paid in-kind, this should have a fairly immediate and direct impact on food security.

Agricultural activities - including crop production, livestock and poultry, forestry, fishing, hired labor, and small-scale agricultural processing - account for 56% of jobs in Nigeria, with vegetable and crop production accounting for about two-thirds of agricultural activity, although these numbers have been declining over the last few decades. Waged agricultural work accounts for more than 40% of the agricultural workforce, many of whom are farmers themselves. When disaggregated by gender, about 66% of the agricultural workforce are male and 34% female. Of the non-farm rural jobs, trading and sales are the most common (19%) and women have greater involvement in these activities than men. Manufacturing of local goods accounts for 8.5% of jobs in rural areas, while transportation and personal services account for 2.39 percent and 4.36%, respectively. The rural non-farm economy in Nigeria, accounts for about 35% of the income generated by rural households.

Heads of households are, on average, 52 years old, according to the 2013 NBS Living Standard Measurement Study (LSMS) survey, indicating that the agricultural production population is aging. When all household members are considered, the average age of the labor composition is 38, despite a young overall population. Youth are relatively more involved in the production of crops. Less than 19% of youth employed in the agricultural sector keep livestock or poultry.²⁵

According to the Ministry of Poverty Alleviation and Youth Employment, the agriculture sector is an important piece of the wider labor market in the Northeast, and is particularly important for youth in rural LGAs. In the survey, 60% of farmers reported hiring casual laborers. The assessment also found that in general, young men are more likely to be selected for casual labor because of the perception that they are strong and can carry out heavy lifting and labor-intensive tasks. The assessment also found that men are also preferred for on-farm irrigation work, if the irrigation system is large-scale. Women also engage in on-farm irrigation, particularly if the scheme

²¹ Nigeria's Living Standard Measurement Study-Integrated Survey on Agriculture, 2012-2013, World Bank; http://econ.worldbank.org/WBSITE/EXTERNAL/EXTDEC/EXTRESEARCH/EXTLSMS/0,contentMDK:23635521~pagePK:64168445~piPK:64168309~theSitePK:3358997,00.html

²² Agricultural Workers and Their Contribution to Sustainable Agriculture and Rural Development, 2007; http://www.fao-ilo.org/fileadmin/user_upload/fao_ilo/pdf/engl_agricultureC4163.pdf

²³ Nigeria's Living Standard Measurement Study–Integrated Survey on Agriculture, 2012-2013, World Bank

²⁴ https://scholars.opb.msu.edu/en/publications/the-rural-non-farm-economy-prospects-for-growth-and-poverty-reduc-4

²⁵ Youth Employment, Agricultural Transformation, and Rural Labor Dynamics, IFPRI (2016); http://www.ifpri.org/publication/youth-employment-agricultural-transformation-and-rural-labor-dynamics-nigeria

is small-scale and uses manual or fuel-powered irrigation pumps. In addition, women might be engaged for small-scale processing such as grinding. Farmers often hire both young men and women for simple tasks such as, weeding, picking, collection and harvesting.

FIGURE 9: WHO IS HIRED FOR AGRICULTURAL WORK?

Labor	Responses	Adamawa	North Borno	South Borno	Yobe
Youth	74%	60%	68%	67%	88%
Women/women groups	42%	29%	24%	58%	52%
Family/friends/neighbors	33%	30%	45%	29%	22%
Farmers/Farmer Group/ Union	23%	8%	39%	21%	20%
Fulani	7%	0%	8%	14%	7%
IDPs/IDP camp leader	5%	5%	1%	11%	4%

Water

Water issues are another barrier to increasing production and improving food security. One producer in Damboa describes how in the past he would grow about 30 bags of maize per year, but this year the yield has reduced significantly to a few bags: "It was not just because of insurgency", he explained, "but also because of rainfall shortage and the lack of fertilizer." Moreover, many farmers reported the lack of a borehole and irrigation hardware for water access, as existing structures have deteriorated over time and communities feel it is the government's responsibility to maintain them. When water is accessible, farmers can diversify crop production or intensify existing crops which has important ramifications for food security. The problem is not just the lack of irrigation equipment but also water management and the harvesting and storage of rainwater. Equipment is also costly and, given the current difficulties, transporting it is generally not prioritized, although this is likely to change once security improves.

Extension Services

The Ministry of Agriculture has a stand-alone Department of Agricultural extension²⁶ and maintains the Government's Agriculture Promotion Policy (2016-2020).²⁷ This policy recognizes the significant gaps in current extension work, and calls for an additional 15,000 extension workers nationwide and more operational coordination mechanisms between the Federal Government and States in between the National Council of Agriculture.

Extension services to farmers have largely been provided by local government agents organized into "blocks" and "cells". ²⁸ However, because resources for these services are extremely limited, more remote areas were often underserved even prior to the insurgency. This situation has not improved in the assessment areas, and

²⁶ http://fmard.com.ng/extension-services-department/

²⁷ http://fscluster.org/sites/default/files/documents/2016-nigeria-agric-sector-policy-roadmap_june-15-2016_final1.pdf

For more information on the structure of Nigerian extension services: The Role of Extension Officers and Extension Services in the Development of Agriculture in Nigeria, May 2012, http://pakacademicsearch.com/pdf-files/agr/194/180-185%20Vol%201%20issue%206%20July%202012.pdf

little to no extension services are currently provided in these areas. Vulnerable farmers and women have always been more likely to be left out of these services, as agricultural extension officers simply cannot meet all their support obligations. Given the current context, there are no programs that specifically target women or youth, or differentiate their respective learning and support needs. However, it is encouraging to note that the Agriculture Promotion Policy recognizes this, and it has a specific section focused on the needs of women and youth.

Many countries have developed successful models of private-sector extension services, often through input suppliers or farmer's cooperatives, which complement existing government services and fill in gaps where those services are not available. Phodels from Ethiopia and Northern Uganda work by increasing the knowledge of village input suppliers, and encouraging them to share this new information in a variety of ways. This increases farmers' trust in the input dealer and grants them sustainable access to new technologies and information. For input dealers, they understand that linking to higher level input suppliers (a regular source of new information) is a way to increase their professional knowledge and is likely to result in increased sales. These models should be explored for adaptation to the Northeast Nigerian context.

Farmer associations can also be a source of extension information and services. The cooperative structure has existed in Northeast Nigeria since 1956 when the Cooperative Laws were signed, and since that time has gone through many iterations. They are most frequently referred to as farmer associations now, with cooperatives relating mostly to credit associations. Many associations lost members who fled, and all sixteen organizations spoken with as part of this assessment would benefit from skills training and institutional strengthening. In addition to providing another forum for extension support, farmer associations may be one path to support those IDPs who wish to return to reintegrate into their communities. The Agriculture Promotion Policy (2016-2020) also recognizes the importance of farmer cooperatives and associations, and specifically notes their potential for helping farmers to gain access to mechanization and credit.

For more information on models: Private Sector Extension Activities Targeting Small Farmers in Developing Countries, Jan 2016, https://agrilinks.org/sites/default/files/resource/files/MEAS%20Report%20%282016%29%20Private%20Section%20Extension%20Activities%20Small%20Farmers%20%28Gomez%2C%20Mueller%2C%20Wheeler%29.pdf

RECOMMENDATIONS AND RESPONSE OPTIONS REGARDING LIMITED ACCESS TO AGRICULTURAL INPUTS AND EXTENSION-RELATED RERVICES

- 3.1 Increase availability of quality inputs throughout the region, by addressing issues related to farmer knowledge and distribution barriers.
- 3.2 Increase producer knowledge and use of inputs, including: spotting fake seeds; fertilizer application and optimum use levels; and calculating the cost/benefit of using hybrid seeds.
- 3.3 Support poor households to access available inputs as needed through voucher schemes and encourage households to plant nutritious food crops for consumption.
- 3.4 Given that input suppliers and traders are facing their own rebuilding costs, provide support to these entities to ensure that lines of credit to farmers for inputs remain open.
- 3.5 Explore value-added agricultural activities particularly those that create employment.

RESPONSE OPTION (AND TIMING)	POTENTIAL PARTNERS	RISKS AND ASSUMPTIONS	EFFECT ON MARKETS AND POPULATION
Build capacity of input suppliers on: Basic business skills Product knowledge Outreach/marketing to farmers Stock management After-sale service Identify ways to include women in capacity building activities, for example: Inclusion of women traders in activities Marketing tactics for household and village-level sales where women are more likely customers On-going, prior to main growing season 2018	Input suppliers, traders of inputs, women selling inputs during insurgency	Pair with input supplier voucher activities, product knowledge training, business monitoring	Improved quality and availability of inputs in the market Greater awareness of customer needs
 Improve local supply of inputs by: Linking input suppliers to new sources of improved inputs (business linkage activities, trade fairs, etc) Explore/deepen agent models that could help more remote areas access inputs Training on improved inputs (incl. by larger input dealers) particularly in Adamwa and N Borno Ensure lines of credit stay open On-going, prior to main growing season 2018 	Local input suppliers, traders of inputs, large and regional suppliers of inputs, farming associations	Assumes input supply markets are not undermined by aid distributions, improved sources are available, and trade routes are at least partially open Natural fertilizers are allowed, whereas nitrogen-based ones are not	Increased availability of higher quality inputs at lower prices for households
Work with existing associations, market groups, and cooperatives to build their capacity to support assistance efforts (e.g. cash transfers, vouchers) • Understand and utilize existing trade networks to reach HH level • Disseminate critical information via these networks • Support ongoing work by the government with cooperatives and producer associations Immediate, on-going	Trade Associations, Transport Union, Farmer Cooperatives and farmer groups, women's groups	Work primarily with groups that existed previously (not newly formed) to ensure group has capacity and cohesion Some risk of elite capture if programs not designed to reach all types of farmer	Trade networks are able to move information and goods more quickly than NGOs because of their existing relationships Working with and through them tends to improve speed and outreach (depth) of aid activities

RESPONSE OPTION (AND TIMING)	POTENTIAL PARTNERS	RISKS AND ASSUMPTIONS	EFFECT ON MARKETS AND POPULATION
 Help farmers access improved input supply through: Cash flow support for small & large input suppliers to reduce investment risk when stocking improved inputs Vouchers/smart subsidies for farmers, to reduce risk of trying new seed varieties, especially drought-tolerant Increasing marketing of natural fertilizer Ensuring lines of credit remain open Pilot for dry season farming; plan for main growing season 2018 	Large input suppliers, local input suppliers, traders	Assumes improved seeds/inputs are available. Need to consider both food security and income potential Vouchers should be designed specifically to encourage the uptake of unfamiliar products and reduce risk of investing (esp. at farmer level)	Increased availability of improved inputs/seeds Improved business linkages for suppliers of improved inputs Increased uptake of improved seeds by households
Seek private sector options to build extension knowledge: • Identify market actors with significant outreach who could play a role in ongoing knowledge support • Examine incentives for providing ongoing extension support (business case) • Support market actors to pilot extension model (e.g., supporting model development, cost-sharing initial investment), ensure models reach out to women and youth Immediate development of relationships and piloting of partnerships; ongoing work over time	Large Input Farmers and Suppliers, Trade Associations, Farmer Associations	Assumes large and small input dealers have commercial incentive to provide ongoing extension support.	Private sector investment in extension-related services will support existing government extension services, where government services cannot reach
 Improve post-harvest storage and handling to support food security (no spoilage/theft) Provide matching grants to rebuild HH and community storage (should be available to large traders too, but with higher levels of matching grants) Ensure governance of community storage Support technical assistance on storage construction and management (to avoid aflatoxin issues) Ensure farmers groups and women's groups have training on first level cleaning and processing (e.g., sorting) to increase HH incomes with little additional input Immediate, in preparation for storage at the end of primary 2017 growing season 	Traders, Input suppliers, Community groups, farmer groups, women's groups, Trade Associations	Must work with highest level buyers (ideally contract buyers) to ensure the type of processing desired to make goods more marketable This may require cross-border conversations Focus on warehouses that can provide leverage for larger area	Increased food security as a result of reduced HH spoilage and increase incomes Increased volumes may also help kick-start trade relationships

Limited Access to Financial Services

Key Finding: Adashes (informal savings groups) are the preferred method of savings for farmers although over half of those surveyed do not have adequate savings facilities. Increasing access to credit is the highest priority for small businesses, who in turn are frequently credit providers for farmers. Most banks/MFIs have not re-opened in the assessment areas.

When asked about the barriers to recovery and growth, access to capital and/or credit was the most frequently mentioned issue for small to medium businesses in all survey areas. Insecurity was ranked second, and infrastructure and price fluctuations tied for third. Most businesses felt that if capital/credit were more easily available they could recover within 6 months to a year.

Savings

Most market actors do not keep household expenses and business or farming expenses separate. Therefore, it can be difficult to separate out business expenses, and even more difficult to set aside saved funds for either longer-term household expenses or business investments. The assessment found that nearly two thirds of farmers save and only a third of farmers said this changed during the insurgency. Both formal (bank/MFI) and informal mechanisms are used, but most respondents said they saved with an informal savings group (adashe), either in their village or in the town and also kept some savings at home. This was the preference for most women. IDP/Returnees are more likely to save with an adashe and less likely to save with commercial banks.

Banks and MFIs have not developed sharia-compliant products, and this has limited their use in the assessment areas, as well as making them more likely targets for insurgents. However, even prior to the insurgency there were only 12 MFIs in the whole of the assessment area (4 in Borno, 1 in Yobe, 7 in Adamawa) in comparison to 181 in Lagos.³⁰ During the insurgency, many of these institutions closed down and remained closed today, which likely contributes to the low response rates for MFIs.

FIGURE 10: OVERALL SAVINGS LOCATIONS FOR FARMERS

Savings Sources	Response
Adashe (savings group)	36%
Keep securely at home	31%
Buy animals or food for storing	27%
Commercial bank	22%
Family/spouse	15%
Friends/neighbors	9%
Other	6%
None	5%
Informal money lender	2%
Microfinance Institute (MFI)	2%

³⁰ Contribution of Microfinance to GDP in Nigeria, Sept 2012, http://ijbssnet.com/journals/Vol_3_No_17_September_2012/18.pdf

As the chart above shows, a variety of mechanisms were used to create savings: one trader saves a minimum amount of N1,000 each day he works, while a farmer may keep animals or store crops in lieu of saving cash. "[Cash] is used immediately and what is not used for the family is spent on animals. We hire the Fulani to take care of the excess sheep and goats. We keep one or two and use them for selling and eating in emergencies." Another farmer in North Borno explained: "We store cereals like, maize, beans etc. and sell when we need money." In Konduga, a farmer explained: "We don't have banks around us, we don't even have the money to save. If we do have money, we sometimes send some people to deposit it for us in a bank in Maiduguri." Some market actors keep the money in the house. One farmer in Damboa puts money into a bottle and then buries it. He does this mostly because there are no formal or informal institutions nearby, although there was one before the insurgency.

About a third of respondents indicated that they changed their savings methods during the insurgency, with returnees (39%) and IDPs (37%) more likely to change savings methods than host community members (22%). Men (31%) were also more likely to change than women (24%). An informal money lender in North Borno reports that his work has increased over the last two years, as insecurity on the roads made it impossible for people to reach their adashes and banks. The insecurity also has meant that people are anxious to transfer the risk to him. Clients bring cash to him at all times of the day, not wanting to take the risk of getting robbed. The number of clients has more than tripled and the quantities saved have increased from NGN 100 to NGN 200 per day. Before the insurgency, he would collect NGN 3,500 per week. Now, he may collect as much as NGN 35,000, an increase of 900%. Clients normally return to reclaim the money being held by the collector at the end of the month. This anecdote reflects the need to re-establish adashes and help groups to organize them in a more systematic way.

For those respondents using formal institutions, the qualitative surveys found that they were most likely to bank with First City Monument Bank (FCMB) or Union Bank for Africa (UBA). All other banks received less than 10% of responses.

Credit

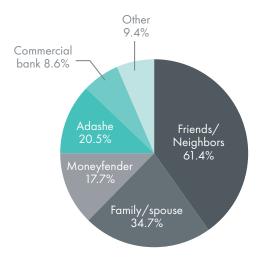
The assessment found that around 40% of farmers borrow money. The primary borrowing channel for cash is overwhelmingly through family, friends or neighbors. Money is also borrowed through informal moneylenders. The assessment found that a small percentage of people borrow money from commercial banks and MFIs. A third of those who borrow reported changing their borrowing channels (who they borrow from) during the insurgency.

A very small group of farmers reported selling off land and assets to get money during the insurgency. In general, most producers reported relying on familial and friendship networks for money during the insurgency.

Around 40% of IDPs and returnees borrow money, and follow the same pattern as for the wider population. A lower proportion of women borrow money (30%), but they borrow as frequently from close familial and friendship networks as other groups but are slightly more likely to borrow from an informal money lender in the village or town (32%).

Another form of credit often underutilized by farmers is embedded finance: financing from other market actors in the system delivered through complimentary transactions. Traders and input suppliers, especially in Yobe and

Producers borrow money from...



Adamawa, often provide credit to farmers in the form of delayed payment for seeds and other inputs until after the harvest. Although it is at the discretion of the input supplier to determine how much may be borrowed and under what terms, it is considered a normal part of doing business. The amount depends on the size of the business and the capacity of the individual to repay. The value of credit extended can range from NGN 5000 to NGN 3 million. Lending is usually informal and without a written contract, but it is not uncommon to find written loan agreements, especially when the amounts are larger. Input suppliers also receive goods on credit from their suppliers about 50% of the time. However, despite the existence of this system, lack of credit/capital for investment was overwhelmingly seen by small and medium businesses as the biggest barrier to recovery in all three of the states. Those interviewed in the qualitative work spoke both about credit for their own business recovery, as well as the importance of cash transfers in increasing the income of their customer base.

The assessment found that at least a third of farmers who use inputs get them on credit, but input suppliers indicate that the number of customers requesting goods on credit is increasing although the amounts borrowed are smaller than pre-insurgency (primarily due to the fear of non-repayment). A higher proportion of IDPs/Returnees (55%) accessed inputs on credit. Only a very small proportion of farmers reported being unable to access inputs on credit during the insurgency. One trader in North Borno described how his business is credit-driven, which is a challenge because he runs the risk of default on his own credit if customers fail to repay him. Many traders explained how they have tightened up credit, reducing the amounts given and lending only to reliable customers, because of the high number of defaults since the insurgency. Borno seems to have a particular problem with this, and lending seems to be much tighter there. A trader in Konduga in Borno explained: "I give credit to customers, because it helps them do what they need to do, and they will come back for my services again. But, first of all, I only do business with them after they have paid their debt". A transporter in North Borno described how he gives credit to his main customer (a processor), in order to help his 'business partner' when in need, while another transporter in South Borno sometimes provides transportation on credit, allowing customers to pay him after returning from the marketplace where they sell their produce. The assessment found a correlation between the level of wealth of an input supplier or trader and the likelihood of delivering credit: 70% of 'wealthier' input suppliers and traders reported that they normally give credit, while only a third reported that they stopped giving credit during the insurgency.³¹ Input supply interventions should consider program options that help ensure that this informal credit system can remain in place and grow, even as these businesses try to invest and rebuild.

Not all credit is in the form of cash or delayed payments. One trader in Damboa reported that he sometimes collects vegetables (carrots, peppers, and cabbage) and pays the farmers first in seeds for the next harvest, and then later pays the balance in cash once he has sold the produce. In Damboa a trader might barter for the goods he or she needs; onions for guinea corn, for example. In South Borno, traders and transporters have noticed that this practice was more common during the insurgency, but now exchanges have returned to being mostly cash-based.

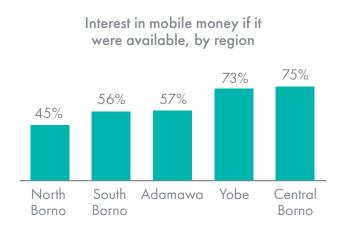
More significant loans may come through other market actors. In South Borno, one inputs supplier gets financial support and help from fellow businessmen. He does this because he knows that the money will come with business advice, and that the loan is without interest. Instead, the interest is perceived as being repaid in-kind (such as returned favors, mutual support, advice). In Damaturu during the insurgency, one transporter lost the car he used for his delivery services. Once he felt that the situation had calmed down and demand for services was picking up, he borrowed money from his family to restart his business. The recommendation in the table below highlights the value of providing credit to traders and other businesses that serve as strong informal lenders for vulnerable farmers and smaller market actors.

³¹ In the assessment, wealth is denoted by the ownership of vehicles as well as the employment of salaried staff. Therefore, an input supplier or trader who employs/provides salary to more than one person and owns at least one vehicle is deemed as being at a higher wealth level – 'wealthy'

Money Transfer

Bank closures have had a serious impact on the ability of farmers to safely move money. As the economy recovers, it will be critical to resilience and recovery efforts to identify ways that individuals and groups can save money and move it safely from one location to another. However, mobile money, because of its novelty and because of fears of cyber-crime, is not highly trusted in Nigeria. The assessment found that only around 7% of farmers use mobile money, although interestingly a much higher percentage of people are at least interested in using it despite their concerns.

FIGURE 11 A AND 11 B: INTEREST IN MOBILE MONEY SERVICES FOR FARMERS BY STATE AND GENDER







A farmer in Damboa said: "We used to transfer by phone but we stopped for fear that someone might get our account number or the transfer codes." Most actors send money to other LGAs, to IDP camps, or out-of-state, yet most actors do this through a combination of manual means. Most farmers have never used mobile-based money transfer services. In addition to these issues, the mobile network is weak (network coverage is poor and number of cash-out agents is limited), although mobile money providers are beginning to feel that Borno, Yobe and Adamawa are stabilizing and will target these areas for expansion.

In Fika, a farmer explained how he uses First Bank mobile money service through the financial agent, who is connected to farmers through the Vegetable Market Association. An MFI in Yobe (Yobe Savings and Loan) is also working towards a mobile money platform where clients can get access to their account using a mobile phone. One trader in Kwaya Kusar said: "It helps a lot, and in a situation where you don't have cash at hand, you can easily transfer". For those using mobile money services, the chart below shows preferred networks in different locations.

FIGURE 12: PREFERRED MOBILE MONEY NETWORKS FOR FARMERS BY STATE

Mobile money	Responses	Adamawa	North Borno	South Borno	Yobe
MTN	58%	38%	86%	68%	79%
Airtel/Zain	34%	40%	14%	32%	21%
First City Monument Bank (FCMB)	9%	22%	0%	0%	0%

Examples of manual money transfer include a transporter in Gajiram, who uses the Transporter Association to send money to other states. This is an informal arrangement with members of the union who transport goods to various locations, and is available to other market actors. If someone wants to send money, they look for a truck going in the desired direction and ask the driver to carry the money. This system relies on trust between the actors, and may not always be available at the time needed.

Formal Financial Institutions

Prior to the insurgency, business thrived in the Northeast as a result of the three states' proximity to Niger, Cameroon and Chad. However, the insurgency brought economic stagnation and banks found themselves holding large deposits: balance sheets began to grow as traders could no longer transact. As the uncertainty continued, traders and business owners eventually made significant withdrawals and stopped depositing, quickly depleting bank reserves. Several institutions in Maiduguri eventually shut down as the system collapsed (long queues at the ATMs dispensing no more than NGN 200, for example). Banks were also directly targeted by bombings, most notably at Eco Bank in Maiduguri and Diamond Bank in Mubi, Adamawa. Attacks on banks were indiscriminate, and insurgents would sometimes send text messages to bank employees asking them to resign from their jobs, creating a sense of unease and destabilizing the banking system beyond physical destruction of infrastructure. It is notable that only Habib Bank - which eventually left the Northeast - offered Sharia-compliant services to clients before the insurgency. This may provide some explanation for the bombings. The result was a significant reduction in financial infrastructure and corresponding access to finance for businesses and households.

As INGOs have come to the Northeast, business for banks has improved somewhat, particularly in Maiduguri. Damboa, however, has had no banks since they closed during the insurgency. Aid organizations' use of banks and cash inflows from households resulting from cash transfers have been instrumental in restarting financial services, as there is once again a viable customer base. A construction boom in Maiduguri can also be attributed to the presence of international organizations, and contractors have replaced traders as the main clients of commercial banks.³² The feeling among financial institutions interviewed was that economic recovery is taking place as traders from the South and East of Nigeria have returned, particularly those focusing on cereals, cowpeas or beans, and fish.³³ The return of traders has also led to more business for the banks and healthier balance sheets. Activities have not returned to pre-insurgency levels, but business is in a more robust state than it was in 2014. The presence of aid organizations is also seen as favorable by banks. One bank manager said: "they have brought more economic buoyancy". A shift in focus from humanitarian interventions purely focused on direct distribution to interventions that support the wider system and early economic recovery would be welcomed by financial institutions.

One bank agent in South Borno reported a decrease from 1800 to 500 clients at the bank. He believes clients are staying away from the town center, have less money to save, or are not certain they will be able to repay a loan in the current climate. He has not seen a change in savings per client: individually, clients are saving the same amount of money as previously due to an automated mandatory savings scheme. While automatic savings may be a smart strategy in normal times, it may explain why poorer clients left the bank rather than being forced to continue depositing savings when their income streams were so uncertain and while travel to the bank was difficult. It is likely that clients living further from the bank were the first clients to be lost. Another financial institution indicated that the number of clients had grown from 1,000 before the insurgency to 1,500. However the profile of clients has changed, in that borrowers in the past were primarily farmers, and now are primarily civil servants

³² Dangote Cement mentioned a backlog of 2,000 trucks of cement waiting for delivery in Borno

³³ Banks interviewed include: Yobe Savings and Loans MFI (state owned), First City Monument Bank, Development Exchange Centre

who have a much lower risk profile due to the nature of their work. The number of farmers actively using the bank's services has likely dropped due displacement, less disposable income, and travel restrictions, whereas civil servants may have increased savings as a risk-mitigation strategy.

A typical agricultural loan from a bank would be for 6-12 months, with monthly or weekly repayments and an interest rate between 8-22%. Many farmers pay their debt within 3-6 months, to avoid racking up high interest payments. Loan terms are generally the same for both farmers and other types of businesses, but collateral in the form of savings or land is generally required (approximately 20% of amount borrowed), making it very difficult for IDPs to get any formal financing. Minimum loan amounts range from NGN 10,000 to NGN 100,000.

Some financial institutions offer loans to farmer groups and trader groups (men and women). In the past, there has been a fear of defaulters however; through group lending methodologies the financial institutions have found it easier to recover payments. This should make it easier for banks to lend to 'risky' clients, and as they build their reputation as good clients, it should increase the amount that groups and individuals are able to borrow and improve the terms of the lending. The payment is made through a group official, and community leaders are often the guarantors (and can help the bank gather payments when they are in default). There is also a 'recovery team' comprised of bank staff and a legal adviser.

The Ministry of Poverty Alleviation and Youth Employment has decided to issue soft loans through commercial banks to enable young people to begin farming activities. These discussions are still at nascent stage and will require creative approaches, given the reluctance of banks to lend to high-risk segments of the population. These soft loans may also be available to micro-finance institutions, registered associations and co-operatives through collaboration with the Ministry of Agriculture.

The Central Bank of Nigeria also emphasized the reluctance of commercial banks to lend to borrowers in the agricultural sector, due to instability brought on by the insurgency, the lack of access to land, and military restrictions on crop types and some agricultural inputs. In part due to this reluctance, the Central Bank is currently working with larger farmers on financing the cultivation of 200 hectares of rice in Southern Borno as a pilot, and is investigating the possibility of lending to farmers in Local Government Areas (LGAs) through the Bank of Agriculture. The process has been slowed down by the bank closures in the LGAs and branches moving to Maiduguri. For example, Bama had ten commercial banks operating pre-insurgency and was the State's main agricultural hub: all were destroyed during the insurgency and none have yet reopened. Banks still face issues and restrictions - changing opening hours to 9am to 2pm to allow staff to return home before the curfew, for example - but these restrictions are relaxing.

The Central Bank has also developed a financial inclusion strategy targeting the Northeast with its Development Finance Department. The Bank has developed several programs that support smallholder farmers and agribusiness across Nigeria, including: the Commercial Agricultural Credit Scheme (CACS); the Nigeria Incentive-based Risk Sharing Agricultural Lending (NIRSAL); the Micro, Small and Medium Enterprises (MSME) fund; the Fund for Agricultural Finance in Nigeria (FAFIN); and the Anchor Borrowing Programme in the Northeast. Each of these schemes is designed to support agriculture, but vary in their design, approach, target group, and geographic area. Banks in the Northeast have the potential to play an important role in recovery, however they will need time to recovery themselves. Branches have begun to reopen in Adamwa and Yobe (e.g. Mubi, Michika, Fika, and Potiskum), but not yet in Borno. Once more branches have opened, it will be easier for savings groups to link with them; in the meantime, savings groups may need to run more independently.

³⁴ http://www.africaleadftf.org/wp-content/uploads/2016/09/Nigeria-EGS-Study-Final-Report-August-2016.pdf

RECOMMENDATIONS AND RESPONSE OPTIONS FOR LIMITED ACCESS TO FINANCE

- 4.1 Strengthen and/or support the re-establishment of adashes, both urban and rural, using lessons learned from other conflict contexts to rebuild savings and social networks.
- 4.2 Ensure that 'better-off' input suppliers and traders are able to continue providing credit to poor farmers, and restore pre-crisis levels of informal credit providers. This may require a two-pronged approach with vouchers/cash distributions to farmers, and lines of credit to larger traders, input suppliers, etc. Credit providers (especially input dealers) can also be an excellent leverage point for rolling out improved seeds – for example by providing better credit terms when purchasing certified improved seed.
- 4.3 Provide financial literacy trainings, particularly for women and youth, to help them think through the pros/cons of keeping savings at home, using food/livestock as savings, and how to do farming as a business. This could be part of a repatriation package, but should be provided to both returnees and those who remained.
- 4.4 Support MFIs and banks to reopen branches in underserved areas and develop products and services targeted at poor farmers. This may require innovation in their policies and procedures, and not just a focus on product design.
- 4.5 Identify opportunities to increase trust in and the use of mobile money.

RESPONSE OPTION (AND TIMING)	POTENTIAL PARTNERS	RISKS AND ASSUMPTIONS	EFFECT ON MARKETS AND POPULATION
 Strengthen urban and rural adashes Provide additional training and support to adashe to reform and/or manage the structure breakdowns resulting from the insurgency Support IDPs to develop adashes in their new locations Build on lessons learned from savings group programs in NE Nigeria, including linkages to financial institutions, formal registration, linking to banks, etc.³⁵ Utilize 'recovery' lessons learned from savings groups in other conflict environments (Cote d'Ivoire, Burundi, Uganda) Identify and develop other "safe savings" options for poor HHs, including forming new adashes where appropriate Immediate, ongoing 	Existing groups or previously existing groups that would like to re-form	Minimum level of trust in adashe system must exist. Where this was eroded—by HH movements for example—additional work may not be needed	Increased access to small- scale savings and lending for women, improved financial literacy, increased access to funds to cope with unexpected setbacks
Provide targeted financial support to traders, input suppliers, processors, and other MSMEs • Matching grants or sharia-compliant loans to restock and/or rebuild businesses (especially businesses that work with a significant number of farmers) • Link MSMEs to sustainable sources of credit. (e.g. traders, banks) • Respect that MSMEs must be allowed to assess individual risk and build trust as part of a longer process of recovery. Do not distort credit market by requiring MSMEs to lend—focus on building conditions that will encourage lending as appropriate Immediate	Traders, input suppliers, processors, financial institutions, Local Coordination Groups	Selection of businesses should be inclusive of smaller market actors to ensure broad market recovery, especially for actors who engage with a significant number of vulnerable households	Rebuilding of market infrastructure and re-stocking needed goods for livelihoods and consumption Increased capacity for informal credit to households, building on existing social capital
Financial Literacy training for farmers, particularly women and youth • to help farmers think through the pros/cons of keeping savings at home, using food/livestock as savings, and teach how to do 'farming as a business' Immediate	Farmers	Assume farmers will recognize the value of this training	Improve business practices and financial health at the farm/HH level

³⁵ See recommendations for savings groups in Mercy Corps' "Gender in Livelihoods Interventions: Piloting the CLARA Tool", May 2016

RESPONSE OPTION (AND TIMING)	POTENTIAL PARTNERS	RISKS AND ASSUMPTIONS	EFFECT ON MARKETS AND POPULATION
Work with formal financial institutions (FIs) to price risk appropriately and increase credit options for traders, input suppliers, and farmers • Work with FIs to understand risk profile and learn how other FIs have managed risk and designed appropriate financial products (e.g., visits to other FIs with similar experience) • Explore sharia-compliant products and services • Reduce formal and informal barriers to women's financial access Start immediately, medium-term impact	Financial institutions (MFIs/banks), Ministry of Finance	It will take time for new/improved financial products to be available. FIs have the flexibility to develop appropriate products for local needs	Improved access to finance for market actors and HHs, including increased availability of in-direct, informal credit
Work with mobile money providers and partner financial institutions to increase their outreach and improve trust of mobile money products Start immediately, medium-term impact	MTN, Airtel/Zain, First City Monument Bank (FCMB), Yobe Savings & Loan	It will take time for infrastructure to be built, trust to be gained, and new/improved mobile money products to become available The business model is sufficient to incentivize the MNOs to expand their coverage and services in the area	Safer ways to transfer funds and make deposits, quicker payment for farmers and traders
Use cash transfers as an opportunity to build financial inclusion and access to additional financial services • Use methodologies that help women and vulnerable get access to formal financial services • Compliment cash transfers with targeted financial literacy education • Where possible, utilize financial institutions to deliver cash that have an incentive and interest in the target population • Work with those financial institutions to educate recipients on financial products and develop targeted new ones, especially focused on women Immediate, ongoing	Financial institutions, Local Coordination Groups, Cash Working Groups	HHs do not retain accounts or use savings and lending products after program Reduced access to cash because of distance or process knowledge needed to withdraw cash	Increased knowledge and access to financial services for households
 Support return of financial institutions to underserved areas Provide information on security and current market demand Provide financial support (such as matching grants) or incentives to re-build infrastructure and support costs of re-opening Immediate in areas where threat of insurgency is low 	Financial institutions	Fls do not see enough potential business to prioritize reopening branches After reopening, financial institutions fail to provide services to key market actors and poor households	Increased access to financial institutions and formal savings and lending for market actors and HHs
Help North Borno government to develop a micro-leasing scheme (probably through private sector) to utilize existing agricultural machinery Identify partners immediately, development of appropriate business models will take time	LGA staff, financial institutions, ag equipment providers	Risk that no company is interested in a leasing initiative, and the equipment sits unused or is taken for private use	Would provide a new sharia- compliant financial product in the market as well as releasing equipment into the market at affordable prices

Effect of Aid on Markets

Key Finding: In-kind distributions should be phased out and replaced with cash and voucher assistance to support early economic recovery. These can also be used to encourage the uptake of improved seeds and/or new technologies.

This assessment was designed to investigate the potential for the market system to enable economic development and recovery. In order to do so, the assessment also considered the possible unintended consequences of aid distributions on the market system. Ultimately, market actors and their networks and not aid agencies will have the biggest potential to support vulnerable livelihoods. During the qualitative phase of data collection, the assessment found: 1) aid agencies were more likely to distribute aid as goods, rather than as cash or vouchers that could stimulate the market; 2) the most commonly distributed foodstuffs in the areas surveyed are cowpeas, beans, cooking oil, rice and salt; and 3) the most commonly distributed inputs in the areas surveyed are fertilizer, water management tools such as irrigation pumps, and seeds.

The assessment found the following effects of aid distributions on market systems:

Cash Distribution - WFP have provided cash distributions over 186,000 people, most of who are in IDP camps.³⁶ ICRC has provided cash distributions to 172,914 people,³⁷ and other aid agencies in the Cash Coordination Group have provided cash to over 91,700 households.³⁸ Where aid is given out in form of cash, it has increased household purchasing power, triggered market activities, and had a stabilizing effect on the local economy, Input suppliers and traders, who often provide credit to farmers believe that cash distributions have reduced the amount of credit required by their customers. However, IDPs are not significantly different from their host communities in socio-economic terms, and therefore the main challenge is that of the poorest members the host community believes they are being 'purposefully left out of distributions'. Many see themselves as just as vulnerable (even before the insurgency) as IDPs. Several small and medium businesses such as input suppliers—have indicated that the cash distributions have a positive influence, as they reduce the need for poorer farmers to take out loans. An interactive cash partner mapping tool has been developed by OCHA, which shows where cash programs are already ongoing.³⁹ The map below shows this information, along with the locations where additional cash programming is recommended. Several partners of this assessment felt that cash was widely feasible, and in-kind distributions were only needed in cases of very specialized needs (e.g. Plumpynut, Aquatabs), although at times even these specialized needs can be met through local markets with appropriate lead times.

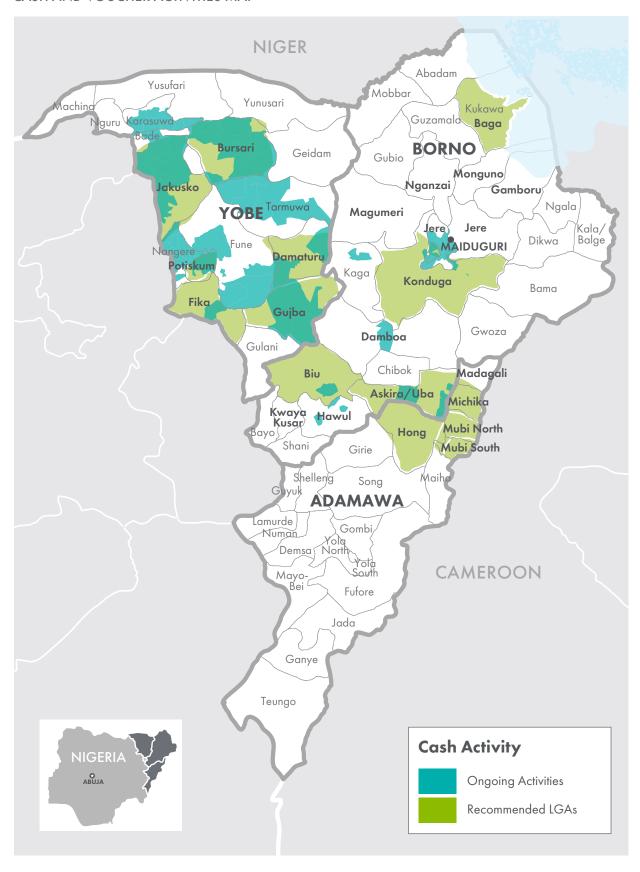
³⁶ WFP Situation Report #19, August 2017

³⁷ ICRC Facts & Figures 2016, Dec 2016 and ICRC Facts & Figures, Jan-Mar 2017

³⁸ OCHA Cash Partner Mapping Tool, July 2017

³⁹ The interactive cash partner mapping tool can be found at bit.ly/CBTtool

CASH AND VOUCHER ACTIVITIES MAP



Food Distribution: WFP has provided in-kind food distributions to 932,000 individuals and ICRC has provided in-kind food distributions to an additional 286,000. Overall, OCHA reports that 2.1 million people have been assisted with food aid in the form of in-kind or cash assistance, however, it is difficult to get an aggregate figure for in-kind assistance only. Aid agencies have made some of these food purchases through local vendors and also contracted local vendors to be transporters. This has helped some businesses to grow and flourish in spite of the insurgency, usually larger vendors who have the financial capacity to pre-finance distribution contracts. There is anecdotal evidence that distributions have helped build good relationships between host communities and IDPs - particularly when IDPs are willing to informally sell aid received at below-market prices to host communities. However, when businesses believe that aid agencies are buying food from outside the region, they feel strongly that this has a negative effect on local food producers despite overall shortages of food in the area. Although the perspective of local businesses is not necessarily based on evidence, perceptions will still play a strong role in how the aid community is perceived, and therefore aid agencies should take care to be very transparent about where purchases are being made and why. Donors and the government can help with this messaging, as they will likely be seen as having oversight. While food procurement may have helped business for large vendors, there is no doubt that food distributions do negatively affect small traders and vendors who sell agricultural commodities and food. As one trader describes it: "When the food assistance comes in, we sell less and when the assistance does not come, we sell more. The assistance affects the high and low demands for the business." Therefore, it is essential that implementing agencies do everything in their power to limit the damage to local food markets and MSMEs, and ensure that businesses that provide these services in peaceful times do not go out of business.

The most commonly distributed foodstuffs in the areas surveyed are cowpeas, beans, cooking oil, rice and salt. Distribution of these staple goods, as well as their resale, puts downward pressure on prices in local markets. While this is seemingly good for poor households, it is bad for farmers selling these crops, who also may be from poor households. Over time, there may be a knock-on effect on income from agricultural labor, as farmers cannot afford to hire labor if they know prices will be low.

Overall Effect on Enterprises: The presence of humanitarian actors has both stimulated and undermined the market, with winners and losers depending on the aid modality and market actor. For example, a transporter in Damaturu has seen an increase in business due to the transportation of NGO staff to communities to deliver distributions. Local staff are being hired to carry out distributions, and there is an increase in the number of fuel vendors to support distributions. Small businesses have reported mixed reactions to assistance and aid, recognizing that cash distributions are generally good for business, but noting that in-kind distributions coincide with a significant drop in business. Some felt that the number of petty traders was increasing, in part because people have more money to spend, and input dealers also report increased customers overall, although they are spending at lower rates than pre-insurgency.

However, many businesses do not feel the benefit of aid distributions, even in areas with a high NGO presence and high distribution rates. Some small, informal businesses find themselves unable to successfully compete with the large businesses that have become preferred suppliers for aid agencies. Greater consideration should be given to appropriate ways to support small and medium enterprises to grow in this changing context, as they have the potential to contribute to recovery efforts.

Vendors who do not have the financial capacity to act as food suppliers or distributors for aid agencies have seen their business slow down. Some businesses have tried to formalize their processes in order to qualify as a preferred vendor or supplier, and traders are also starting up small businesses in order to benefit from the parallel food system. There is a feeling among the business community that aid agencies have created a role for themselves in the market system, and every action taken by aid agencies has ripple effects on other market

actors: large vendors are growing larger and accruing the benefits of working with NGOs while small vendors—including those who operate outside of the main townships, such as Maiduguri—are struggling to stabilize their businesses in this difficult context. It is likely that over time, those businesses currently funded by aid will struggle once the aid is removed, and smaller businesses who were not involved in distributions will not have the capacity to step back into the sector.

Agriculture inputs make up a significant proportion of distributions, with at least 863,000 farmers receiving inputs through aid distributions during the last season. 40 Some farmers stated that direct distribution of inputs supports communities in the short-term because this allows households to use their income to meet other needs and because they have prepared their land, they won't have to spend as much on food in the future. However, aid distributions tend to temporarily distort the market and crowd out distributors and input suppliers. If this is managed poorly, it can undermine the already weak "normal" system and damage the distribution network for agriculture inputs in the longer-term.

Although improved seeds are often not available in the market due to production issues for locally produced seed (see Input Market System report in Annex 2) free seed distributions build a parallel system. As a result, when aid programs end the structures for input distribution will have been eroded, capacities of the input suppliers will have been weakened, and there still will be no commercial supply of seed. Vouchers for improved seeds through existing input providers coupled with training for input providers on the specific benefits of new varieties, and best practice in fertilizer application, storage solutions, and so forth could help strengthen the existing system, as well as addressing immediate humanitarian issues. Working with input dealers to strengthen their network and better complement the formal extension service system would also support this goal.

Improved seeds (especially drought and disease - resistant varieties), increased knowledge on the benefits and use of high quality seeds, appropriate pest-prevention storage options, and improved agriculture equipment will all be needed to rebuild the economy and build resilience to future climate change shocks. The Nigeria EGS Study indicates that about 50% of seed is planted with seed sourced through informal means. Although open-pollination varieties (OPV) seeds are currently planted more than hybrid seeds, it is expected that the hybrid market will continue to grow and over time may replace the OPV market. If the existing inputs market structures are not strengthened and farmers are not informed of fair prices for these goods, recovery will be significantly slowed, and the government and NGOs will need to be involved for a much longer period of time at considerable cost.

Dependence: Some market actors feel the benefits of aid are not targeted toward productive income-generating activities. "People do not spend on business; the aid is an 'ATM'!" explained a trader in South Borno, inferring that beneficiaries act as though they expect to receive this support indefinitely. A producer in Damboa explained: "Although, aid helps in the short-term and people can use the income to prepare for the farming, in the long term, it could make people lazy". A trader in Konduga explained: "Positively it has helped at times when there is no money to buy food items, negatively our farmers are becoming lazy."

⁴⁰ OCHA Nigeria, Humanitarian Situation Report, July 2017

⁴¹ http://www.africaleadftf.org/wp-content/uploads/2016/09/Nigeria-EGS-Study-Final-Report-August-2016.pdf

RECOMMENDATIONS AND RESPONSE OPTIONS REGARDING EFFECT OF AID ON MARKETS

- 5.1 Continue the use of cash and vouchers to ensure that farmers have adequate access to food and livelihood inputs—working in coordination with the Cash Working Group, Early Recovery Cluster, and the Food Security Cluster—and ensure that areas receiving in-kind food aid are regularly reviewed to determine their readiness for cash. Ensure price fluctuations and inflation are taken into account and regularly reviewed when determining levels of assistance for cash programming.
- 5.2 Continue using local partners whenever possible to implement food distributions and ensure that small local vendors have good information on the type and timing of distributions so they can plan for complementary (rather than overlapping) stock purchases. Provide business support services to help micro and small businesses plan for these complementary activities, or for formalizing processes that will allow them to participate in the distributions.
- 5.3 Ensure that teams working on specific value chains are aware of the nutritional benefits of the selected crops and how they contribute to food security.
- 5.4 Work through, and strengthen, existing market structures for agricultural inputs. Use methodologies that do not create parallel structures, but where appropriate consider introducing new technologies (such as improved seeds or production methods) into the system, supporting both formal and informal markets as appropriate.
- 5.5 Regularly review policies and procedures for identifying local partners to allow broad engagement from local businesses and traders in humanitarian assistance activities. Provide training if necessary to increase engagement.

RESPONSE OPTION (AND TIMING)	POTENTIAL PARTNERS	RISKS AND ASSUMPTIONS	EFFECT ON MARKETS AND POPULATION
Continue multi-purpose cash assistance for basic needs programming and limit in-kind distribution Improve coordination and information sharing among aid agencies to encourage faster transition to cash based programming Advocate for recovery programming to be cash and market-based rather than distribution-based Improve processes across food assistance actors to determine assistance modalities that minimize disruptions to the market	Aid agencies, donors, payment providers, Cash Coordination Group	Increased inflation and increased price of goods Limited capacity of payment providers to support, larger scale programs Prolonged use of cash reduces resources allocated to addressing system-level constraints in markets	Increased access to flexible funds to meet basic needs and reinvest in livelihoods Increased market functionality with multiplier effects for local economy Increased HH and market/trader liquidity
When vouchers are selected to encourage uptake of specific products, or because cash is not feasible, ensure that vendor selection procedures are accessible for smaller businesses Provide training /demonstration as a complementary activity to build farmer and supplier knowledge of improved seed varieties Ensure small vendors are aware of in-kind food distributions so they can plan for complementary stocks, rather than purchasing the same commodities for sale Ongoing, but tied to seasonal calendar	Aid agencies, donors, Cash Coordination Group, suppliers and traders of productive assets and inputs	Risk that farmers will not utilize vouchers and improved inputs will not be taken up	Increased, sustainable HH access to inputs and assets through market actors

RESPONSE OPTION (AND TIMING)	POTENTIAL PARTNERS	RISKS AND ASSUMPTIONS	EFFECT ON MARKETS AND POPULATION
For activities that involve market vendors, set requirements to allow broader engagement from traders • Take into account benefit to participating traders and factor market dynamics into vendor selection processes. Consider working with smaller entities for retail vouchers • Utilize vendors farther out of main market centers for voucher schemes, to support market recovery across a broader geographic area • Provide training to vendors and inputs suppliers to strengthen other activities Immediate, ongoing	Retail and wholesale traders in retail markets (agricultural inputs and food)	Increased burden on administrative processes for implementing organizations	Builds more resilient and competitive markets, improving access and potential for market-based coping for HHs who engage with smaller traders
Link market and nutrition programming by helping communities understand the nutritional importance of vegetables and pulses—in particular groundnuts, cowpeas, beans, millet, sorghum, tomatoes and leafy greens—as vegetables in particular seem to be undervalued by farmers	Farmers associations, aid agencies	Assumes increased knowledge will result in increased consumption and/or production	Depending on vegetables promoted, could contribute to a reduction in Vitamin A and Iron deficiency
Humanitarian Assistance Actors should periodically review their policies and procedures for identifying local partners to ensure that as the context evolves, new private sector and local NGO partners can be included in response activities, and where appropriate these are viewed as learning and capacity building opportunities on both sides Immediate, regular	(Internal) Finance, Procurement, and Program teams, Headquarters staff	Takes time, will always seem low priority. Best done pre-crisis, but can be done anytime	Will open opportunities for smaller organizations and businesses to participate in recovery and not be sidelined

Cross-Cutting Issues And Opportunities

Key Findings: The insurgency has changed social dynamics for women, but does not seem to have undermined trading relationships, including those that stretch across state and international borders. IDPs have also developed social networks, demonstrating an opportunity to leverage social capital for recovery efforts.

Social Connections

The insurgency has changed social dynamics without seeming to have undermined the deep trade relationships that stretch across state and international borders. Family links and social connections are extremely important for trade relationships in the NE, and this provides an excellent opening to implement activities that support both social and trade networks. Trade relationships and membership associations provide a network that contributes to resilience and coping mechanisms throughout the community and can be leveraged to support economic recovery. However, displacement has broken down pre-existing community networks for advice. A producer in Gajiram has seen this dynamic change since the insurgency: "...some people we used to discuss with are no longer there. Due to insurgency, many of them left other locations and never returned. Some are even feared dead."

Market Actor Networks

Associations and unions have been instrumental in supporting coping mechanisms for more remote households and in overcoming security-related restrictions. One trader that operates in the geographic area between in North Borno and Yobe, through Damaturu, explained how he moved food items during the insurgency. "My work is to get food to other LGAs but the AOGs [armed opposition groups] used the road to carry out attacks. So, I worked with the Traders Association to get clearance or permission to move with such items. Our association held meetings to discuss and proffer solutions. We delegated our leaders to meet with the security men and with the traditional community leaders. There was a 'community dialogue' between us and the security agent and we found a way through." Associations can also be useful for identifying new marketing opportunities. For example, a trader in Damboa was pointed to a marketplace at the end of a "very bad road". As a trader, this was not a marketplace he would have known about had he not been introduced to it by his 'boss', a lead trader at the association. As mentioned earlier, the National Union of Road Transport Workers helps coordinate the activities of transport workers and ensure that vehicles are in good operating condition and supports members with issues such as dispute resolution. There are similar associations for market traders, farmers, and input suppliers.

Prior to the crisis there was a high volume of trade throughout the Lake Chad Basin. Due to the insurgency, nearly all cross-border trading has stopped. However, traders report that trade relationships are still in good condition as these are based on social and familial ties that have not been impacted by the insurgency. As would be expected, traders and farmers rely on these trade relationships to get information on current market prices and opportunities. There are horizontal flows of information within groups of traders, processors, inputs suppliers and transporters, as well as vertical information flows between different actors in a market chain, and between the groups of actors themselves. The community also acquires this information from their daily or weekly activities interacting with traders and input suppliers. There is a significant amount of trust in market relationships across Adamawa, Borno and Yobe, and as mentioned earlier these high levels of trust facilitate the flow of credit through the system.

The Chamber of Commerce and Industry is another market actor that can leverage its strong social connections. The Chamber has been present in Northeast Nigeria for 45 years, with its headquarters in Maiduguri. Before the insurgency, it oversaw and coordinated business activities in the three States, particularly cross-border trade activities. It is a voluntary organization with no financial support from state or federal governments, and therefore brings a different kind of overarching perspective to the table. The Chamber occasionally influences

market trends, and is frequently sought by the federal and state governments for advice. The Chamber is an active member of the Food Security Sector Working Group and has pushed for INGOs to work with large-scale farmers with the hope that returnees will facilitate a return to large-scale productivity.

The Chamber provided more detail on the cross-border trade history. Prior to the insurgency, there was a vibrant market in Maiduguri, serving Chad, Niger and Cameroon. Borno, Adamawa and Yobe did little trade with the rest of Nigeria and instead focused on cross-border trade. Nearly all trade in the Lake Chad basin - Chad, Cameroon, and Niger - and onward to Central and Eastern Africa, was done through Borno State. Large volumes of export trade went to the region from Maiduguri, and Nigerian traders provided most of the goods in Chad and Cameroon. These trade contacts had existed for centuries and were fostered by individual trading families. As a result, no bilateral agreements were drawn up as they seemed unnecessary.

There are several anecdotal reports that indicate that trade and market groups are willing to work together to overcome issues and therefore provide a good starting point for locally-led recovery efforts. The assessment found that during the insurgency trade unions pooled their energy and resources to address roadblocks affecting the movement of vehicles, people and goods. The NURTW and the Market and Traders' Unions would work with security forces and community leaders to get food in and out of zones under heavy control due to insurgent attacks. The unions also pooled financial resources to renovate some marketplaces although this was not widespread, as some market actors do believe that the burden of reconstruction should fall on the LGA. Inputs suppliers also reported pooling their money with other local businesses to repair key marketplace infrastructure. NGOs should identify groups with strong, long-standing bonds of trust, and work with them to shape priorities and catalyze recovery.

Household and Individual Networks

To provide a window into relationships that are significant enough to encourage joint investment and risk-taking, as well as information on household economic dynamics, farmers were asked: "Who do you farm with?" Unsurprisingly, family and spouse top this list. It is interesting to note however, that there is a robust group (21%) who will farm with neighbors and friends, as well as some groups who prefer to go it alone (14%). The only noticeable difference between men and women in these responses is that men are much more likely to farm with youth than women are. This may be linked to earlier findings that showed that young men were preferred for casual labor. Women are also somewhat more likely to farm with family than men are, but given the restriction of women's movement in certain areas, that may simply be due to cultural constraints and not a true choice on the part of women.

IDPs are more likely than host populations to farm with family (49% compared to 39%) and slightly more likely to farm with friends/neighbors (16% compared to the host population's 13%). In all other categories, the host family is more likely to farm with those groups than IDPs. In this assessment, a large proportion of IDPs and returnees report having family connections within the regions they have relocated to. IDPs interviewed for this assessment frequently chose to relocate to areas where they have pre-existing familial networks.⁴²

While family and social connections are very important, membership in other groups is not that common. The data shows that 55% of those surveyed do not belong to any group. As NGOs design programming, this may be worth exploring further as membership in such groups can be an important contributor to building resilience and social cohesion. Of those who were members of a group, the highest participation was in farmer groups (14%)

⁴² The assessment did not interview IDPs within a camp setting, which may have created some bias in responses

and then women's groups (7%). Interestingly, returnees seem to be more likely than host populations or IDPs to be involved in groups. Returnees are most likely to be in traders' associations, while host communities are most likely to be in farmers' groups.

FIGURE 13: GROUPS THAT FARMERS BELONG TO BY STATUS

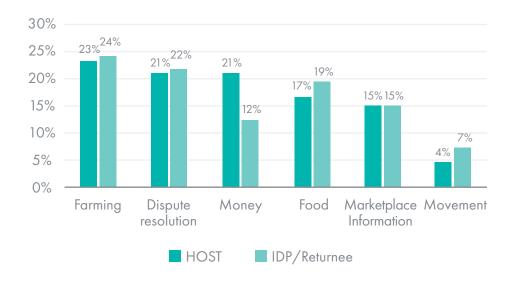
Group belonging	Responses	Host	IDP	Returnee
None	55%	55%	61%	45%
Farmers group/Union	14%	16%	13%	13%
Women's group	7%	4%	8%	14%
Market Association	5%	4%	3%	11%
Traders Union	4%	3%	4%	8%
Village/Community Association	4%	4%	3%	3%
Business leaders group	3%	2%	2%	8%

Membership of groups may have changed because of the insurgency. In greas where people have fled attacks there is anecdotal evidence that trust has broken down, and there is suspicion levied at newcomers to local groups and associations. Activities requiring cooperation, such as institutional governance, have on occasion been strained.

Farmers were asked: "Who do you go to for information and assistance with restrictions?" In general, farmers tend to go to others within their familial and friendship circle, within the local community and to other farmers. A few go directly to the security forces (the military or CJTF) to get information or to businesses, such as traders, processors, and input suppliers, but very few go to government sources such as extension officers. It is notable that nearly one in six farmers do not go to anybody as a coping mechanism: this is an important finding for resilience programming, as information networks can be critical to successful responses. In these cases, they either they rely on their own initiative to find a solution or they withdraw themselves from the situation altogether and cease activities. Farmers were also asked "what help do you get from the group(s) to which you belong?" The type of help sought from groups varied slightly for women as compared to men; more women seek help for access to farming support (inputs, labor, transport, storage), access to food (fresh from farm, sharing of stored/saved food, sharing aid distributions) and access to money (cash, credit/loans, secure/safe deposits). Fewer seek help for disputes, market information or information on movement (convoys to the marketplace, group travel to farmland). The patterns of help sought may correlate with the activities that women mostly engage in; from working on the farm, feeding the household, or selling produce in the marketplace.

The type of help sought also varies slightly for IDPs/returnees compared to host communities. Unsurprisingly, host communities are significantly more likely to seek help in accessing money, while IDPs are more likely to seek support related to movement. It is likely that IDP and returnees are restricted in accessing finance because of their non-permanent status. It is also possible that IDPs and returnees do not belong to the types of groups where informal finance is available.

FIGURE 14: ASSISTANCE SOUGHT FROM GROUPS BY ISSUE



Women in Agriculture and Market Systems

Generally, the Northeast is socially conservative and women are more limited in their freedoms. However, women are reportedly participating more frequently in business activities that were primarily carried out by men prior to the insurgency. Nevertheless, women remain generally 'unseen'. Many women do not actively publicize their economic activities⁴³ and at the same time, men do not think about the fact that women are engaging in these activities. The issue is a perception problem. The contradiction is apparent in a statement from a respondent:

"No, it is not often that you see the women because the culture around the Northeast is that women are not usually in the forefront, except if she is very outspoken. So they don't usually come out in the open to do it. Even when there is a woman marketer with large amounts of capital, she is usually not the one in the forefront. She will nominate somebody that is a male who is related to her or her husband".

-Producer, March 2017

In some places, an outspoken woman is considered 'an unpleasant person', and as a result she might be treated in a hostile way. This behavior can signal to others that a woman should not be outspoken, including young girls who are looking for role models. These attitudes infuse the system and affect a woman's ability to effectively engage in competitive behaviors such as negotiations on pricing or accessing the information needed to work around rules and restrictions. Naturally, opinions towards women and what activities are permissible or appropriate are mixed. Many men and women perceive that 'a woman's role is in the home' as the caretaker of the family. Many also believe that women should not be involved with certain activities, such as transportation services, where women will have to mix freely with men. On the other hand, a male trader in Kwaya Kusar said: "There is no difference between men and women. Business is the same."

Men do tend to be the head of household and if there is not a husband, then the eldest son and other male relatives will take on this role. Men own the majority of farmland and dominate household decision-making. In addition, a male farmer is five times more likely to own his land than a female farmer according to the 2012 Africa Region Gender Practice report.⁴⁴ Female-headed households are often very poor, with limited access to funds

⁴³ For more information on gendered livelihoods in Nigeria, see also Mercy Corps' "Gender in Livelihoods Interventions: Piloting the CLARA Tool", May 2016

⁴⁴ http://documents.worldbank.org/curated/en/432221468096839713/Explaining-gender-differentials-in-agricultural-production-in-Nigeria

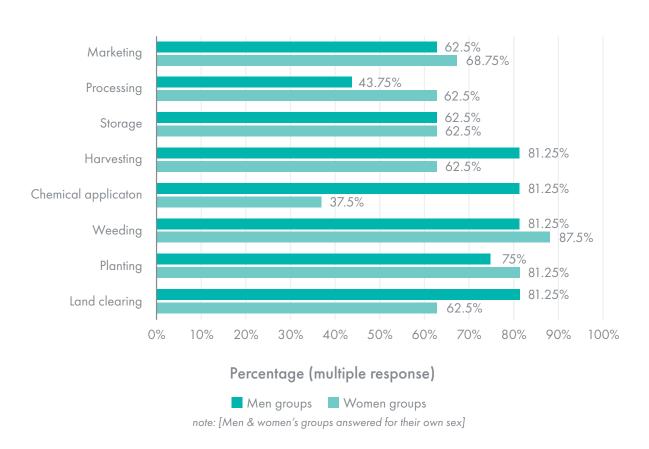
and suitable equipment such as tractors. Alternatively, many households are comprised of multiple wives. In these households, women work together to carry out household duties as a group, although a hierarchy between the women might be imposed. The assessment found evidence that in some households this may create competition and conflict between the wives, with a detrimental effect of farming and other productive activities, as well as on the women themselves. In other households, the assessment found that there is unity and sisterhood, and the phenomenon of multiple wife households has a positive effect on relationships for farming and market activities. A deeper exploration of social capital and market system functions, and notions of good and bad competition at household level, could be useful.

Household Economic Activity

In many households, women play a significant role in agricultural labor for the household and are active in local processing of food security crops, such as rice, maize, cowpea, and vegetables, but this processing is often at a subsistence level on farm, rather than for commercial purposes. The Ministry of Gender found that 70% of farming activities are carried out by women, and felt the true extent of their participation in the sector is largely underplayed.

To delve deeper into this, in its recent Gender Analysis Report for Adamawa, Yobe, and Borno, CRS found that both men and women were involved in all pre-production to post-production activities. The following chart provides a picture of all stages of production, and shows the few places where there are differences.

FIGURE 15: FARM PRODUCTION OPERATIONS BY GENDER. 45



⁴⁵ Gender Analysis Report for Adamawa, Yobe, and Borno, Nigeria Livelihoods Project, CRS and Feed the Future, April 2017

Women are often allocated a specific piece of land to farm by their husband. Although there is nothing in Nigerian law that prevents women's ownership of land, under Islamic law women are entitled to half the share of their male counterpart, and it is not customary for a woman to inherit her husband's lands. If she has children, she may hold the land in trust for them if they are minors, but if a woman has no male children and does not remarry within the family, the land may go to her husband's family. In effect, women's access to land depends on marriage; they retain access to land as long as they remain in their husband's household. As owhile they may have control of land to some degree, they do not have the security of tenure. They are able buy land either directly or indirectly through their father, husband or children; but in instances where they inherit land, they are not allowed to transfer it, even to their husbands. And despite making up 60-80% of the agricultural labor force, women are unlikely to make key farm management decisions for the household. Some women farmers in South Borno reported that: Women work on their husband's farm in the mornings from Monday to Thursday and then, she would work on her own farm on Friday, Saturday and Sunday. In the evenings, she may work on either. The CRS report found that over half of both men's and women's groups acknowledged the existence of community norms regarding which crops were appropriate to be grown by men or women.

FIGURE 16: PERCEPTIONS OF CROPS ASSOCIATED WITH EACH GENDER⁴⁹

	Men	Women
CROPS	Maize, millet, rice, guinea corn, sorghum, cotton, beans, watermelon, sesame seed, wheat, ridi, dawa, zobo, Bambara nut	Vegetables, okro, pepper, groundnut, sesame, soya beans, rice, millet, beans, sorghum, maize

Vegetable production is largely managed by women either through the cultivation of farmland dedicated to vegetables or though kitchen gardens. In general, men are more involved in the production of cash crops such as yam, maize, soybean, cotton, and sesame seeds. With regard to trade, Nigerian women play an important role in both informal and formal cross-border trade.

In the early stages of the insurgency, when men were being targeted by the insurgents, many were forced to fight or go into hiding or hide out in towns like Maiduguri. The women were then left behind to run the house and farm. Eventually however, the insurgents started attacking the women, so they too had to relocate from the rural areas and go into hiding. In areas attacked by Boko Haram, many women lost husbands and relatives and so have assumed control of the household and started engaging more actively in the market system. To some extent they have maintained these new responsibilities, even as the insurgency wanes.

The Explaining Gender Differentials in Agricultural Production in Nigeria report (2012) noted that women in the North produce 28% less than men.⁵⁰ Male farmers were 21% more likely than female farmers to use fertilizer, herbicides, and pesticides on plots they manage and as a result, agricultural income that is 37% higher on average per hectare. This, and other factors such as smaller plot sizes, access to adequate adult labor, and access to fertilizer resulted in a 'conditional estimated gender gap of 27.9% for the North'. Interestingly, they

⁴⁶ Land Ownership and Access to Farm Inputs for Rural Women in Nigeria, FAO 1993, http://www.fao.org/docrep/v9828t/v9828t08.htm

⁴⁷ Ibio

⁴⁸ Comparative analysis of gender involvement in agricultural production in Nigeria, May 2012, http://www.academicjournals.org/journal/JDAE/article-full-text-ndf/38D1A831216

⁴⁹ Gender Analysis Report for Adamawa, Yobe, and Borno, Nigeria Livelihoods Project, CRS and Feed the Future, April 2017

⁵⁰ http://documents.worldbank.org/curated/en/432221468096839713/Explaining-gender-differentials-in-agricultural-production-in-Nigeria

found that growing only one crop on a plot (as opposed to a multi-cropping system) was associated with significantly lower productivity, while growing a cash crop has a positive and significant outcome for femalemanaged farm plots. Women have higher returns than men when growing cash crops, planting multiple crops on their plots, using herbicides and fertilizer, and using purchased seeds. Given these results, an expansion of commercially-oriented agriculture, including cash crops, would have a positive overall impact on women's production and, all else being equal, would help to close the production gap. Interventions focused on inputs should consider options for changing perceptions toward women's purchasing and use of inputs, improving women's access to funds and credit for inputs, and improving marketing to women.

In particular, the study showed that older women seem to face a disadvantage. It is worth noting that the study found that female farm-plot managers were more likely to be widowed, a group that tends to be older. Since the study controlled for inputs, any direct contribution from inputs can be ruled out, such as the quantity of land or command over labor. Thus, whatever is driving this disadvantage must stem from some more indirect source, possibly social networks or cultural attitudes.

Market Activity

Like men, women farmers will sell directly to traders or vendors, although sometimes with more limited options than a man might face. Women will also take up trader and vendor roles (about 30% are women). In most towns, women and men move freely and mix throughout the market. However, there are towns such as Biu where there is a separate area for women vendors. When women are involved in input supply (about 12%), the assessment found it is most often in the role as a village agent, where they are selling inputs alongside other household and farming activities. In Yobe, there are some examples of women being engaged in the transportation business. Some women have inherited large vehicles, often trucks, that are then rented to men to carry out transporting activities.

However, most often women provide their produce to their husband to sell at market for her. This leaves her without experience in negotiating prices, and without a full understanding of the value of her work. Yet women farmers in South Borno have reported a change in norms since the insurgency. "In the past, I was only able to farm one day per week, now we go to the farm more often to protect men, because men are at greater risk from Boko Haram". In North Borno, women reported that beyond farming, the activities in which they engage are mostly, low-level processing (grinding and milling millet or sorghum) using traditional manual methods like the pestle and mortar. It is also common for women to produce and sell cooked food, particularly bean cakes. Young girls and boys often are found in the marketplaces selling water. In North Borno, non-cash (barter) payments are common, with traders exchanging goods rather than cash. For example, if a woman requires maize, she can exchange the millet she has brought with her. This is particularly common among poorer women who do not have the cash to buy food from the marketplace.

Humanitarian agencies should look at strengthening women's business skills, including pricing and negotiation, and encourage their participation in farmer groups where they can get better access to market price and demand information. This should be encouraged for all women, but particularly amongst young and old women. Informal and formal groups and networks can be a key channel for promoting and amplifying opportunities to enhance women's participation in the economy.

Advice and Information

It is a widely-held belief that men are the primary actors in business. As a result, it is a believed that when women need help with the business, they go to men (spouse, brother, father). Some women do seek advice and information from outside the family unit, particularly those in women's groups who take part in activities organized by the local Department of Agriculture. They may also use the group for conflict resolution, or go to inputs suppliers for advice on pesticide and fertilizer use. These groups can continue to be a channel for improving women's access to information, particularly related to inputs and usage.

Some women also visit formal and informal finance agents for advice. In Yobe, an MFI agent regularly sees women come in to get financial advice and take out loans. Activities focused on information flows could be especially useful for women who may not have access to information through male relatives, such as widows or those living in IDP camps. The access to information on appropriate inputs and usage could be particularly useful for these women, to ensure resources are used well.

IDPs and Returnees in the Market Systems

Recent research by CITAD and USIP on community resilience found that IDPs in Yola, Gombi, Biu, and Maiduguri (also included in this assessment) reported high levels of resilience, whereas other areas of Borno and Adamwa showed examples of communities with weaker resilience.⁵¹ In general, the study found that communities that are inclusive in their social and economic activities tend to have more social cohesion than those that don't. Gombi and Biu, two of the most highly resilient communities (with respect to responding to Boko Haram) are multi-ethnic and multi-religious. They were able to sustain consultative stakeholder processes that allowed everyone to be part of the security management of the community, making it more difficult for insurgents to operate in these areas. The report also found that community trust was critical to the maintenance of community cohesion, as was the way information was processed and used.

The report also found that assistance focused on supporting community development efforts fostered a greater sense of self-reliance and collective action, which contributed in important ways to community resilience. The importance of addressing youth employment, encouraging inclusive leaders, and strengthening women's livelihood opportunities were also noted. The findings and recommendations of this report provide important guidance on how assistance programs should be targeted and implemented, and are in line with the recommendations and response options outlined above. The qualities identified as important in the CITAD research are essential for creating an enabling environment where market linkages and input provider networks can be developed. While participation in groups at the time of this assessment was not particularly high, there are clear benefits for providing support to farmers groups, women's groups, trader groups and other mechanisms for promoting economic opportunities while creating improved conditions for community resilience. Where possible, interventions that work through groups should leverage existing groups in order to increase their chance of functioning and sustaining.

The assessment found some evidence of IDPs who have revived closed markets and economic activities by dedicating themselves to trading and transporting:

⁵¹ http://www.citad.org/download/community-resilience-lessons-learnt-from-the-boko-haram-experience/?wpdmdl=2580. In this case, the researchers defined resilience as, "the capacity of communities to adapt when faced with hazards by taking the required actions to maintain an acceptable level of function and structure... a metaphor for measuring the strength, durability and adaptive capacity of things as well as a theoretical framework for studying [these dynamics]"

"In Konduga, in North Borno, there is a big market called Malari market. It is the biggest market in the Konduga area. Nearly three quarters of the actors there are IDPs because they were the first people to return to the area after the Military re-opened the road. Directly opposite that market is Mandandari Camp, which was opened not too long ago and the IDPs in this camp re-ignited the activities in the marketplace before even the host community had started returning. When the IDPs arrived, they were the first to start vegetable farming using irrigation. This was a practice that was not known by the host community. The produce started fetching good money so the host community has joined in and started producing with them."

-An INGO Borno, March 2017

In South Borno, there is further anecdotal evidence that the IDPs who have settled in the area have brought with them the knowledge and skills of millet farming, changing the production dynamics of the area. Since they arrived, IDPs have been able to build connections with people and develop social networks, demonstrating the opportunity to leverage the rebuilding of social capital to eventually facilitate market exchange processes.

RECOMMENDATIONS REGARDING CROSS-CUTTING ISSUES

- 6.1 Utilize existing networks and relationships to rebuild cross-border trade relationships and improve (on and off-farm) livelihoods through increased demand. Work with the Chamber of Commerce, trade unions, and other local networks to rebuild social capital and bring small-holder farmers more actively into market chains.
- 6.2 Strengthen groups and networks that can provide support, market information, information on appropriate inputs, to women, focusing particularly on vulnerable groups who may not have good sources of information.
- 6.3 Build the capacity of community groups to include and support women in meaningful ways, encourage their leadership, and build community resilience overall.
- 6.4 Ensure men understand the reasons for and benefits of gender inclusion, by inviting them in appropriate ways to participate in these processes.

RESPONSE OPTION (AND TIMING)	POTENTIAL PARTNERS	RISKS AND ASSUMPTIONS	EFFECT ON MARKETS AND POPULATION
Identify in communities the networks, relationships, and groups that can contribute to recovery, strengthen resilience, and increase trade. Focus primarily on existing groups that have maintained cohesion during the insurgency, and do not seek to form new groups, but make sure that women and youth have appropriate access to and voice within these groups Immediate, ongoing	Trade Associations, Chamber of Commerce, women's groups, farmers associations, returnee groups	Risk that recovery needs will increase competition, rather than improving social cohesion	Improved recovery and resilience based on long-standing, pre-insurgency personal networks. Improved trade relationships
Provide youth and women, especially widows and female heads of HH, with opportunities for business skills trainings and networking that include negotiation, and acknowledge their specific challenges. Ensure men's buy-in for these trainings to avoid GBV Immediate, ongoing	Women's groups	Women will want to, and are able to, participate	Increased agency for women, and possibly increased income
Utilize and strengthen key social and trade networks for: • trade information flows • agricultural information flows • access to more remote areas • informal credit Build the capacity of the Chamber of Commerce, trade associations, and of women's trader groups to strengthen participation, business models, and services. Ensure that vulnerable women (such as IDPs) have access to additional market information Immediate, ongoing	Chamber of Commerce, trade associations, women's groups	Risk that these networks will not have an interest (or perceived need) in working with INGOs Risk that these networks favor elites or exclude vulnerable groups Working with pre-existing groups that already have built up social capital will allow programs to move quickly and reach deeper into targeted areas	Providing the tools and/or space for these groups to be revitalized could jump start recovery by improving access to information, credit, and trade linkages, key factors for building household resilience
Involve men in activities designed to strengthen women's technical and business skills Immediate, ongoing	Husbands and local power structures	Risk that men will prevent their wives from participating if not included and/or transparent about activities	Women's economic empowerment would likely improve allocation of resources resulting in improved food security and increase incomes in the medium term

Conclusion

Throughout this report we have identified opportunities to address household-level recovery needs in ways that also support markets. Market system interventions will directly support household production and income opportunities as the recovery moves forward, as well as helping markets to function more effectively. The entry points for this work are the traders, input suppliers, and farmers that have been surveyed for this assessment. They are the heart of the market system, but it is critical that differentiations are made within groups; particularly for youth and women, who play an important but often hidden role in the market.

Moving forward, it is essential that humanitarian actors utilize adaptive and flexible approaches to ensure that programs respond to the changing market conditions that will come with growth and recovery. Donors and implementers have a joint responsibility to be responsive to market realities, and programs need to be designed with the potential for changing approaches based on shifting market conditions. It is recommended that programs work at several points within the selected market system, to improve the overall effectiveness of interventions. Implementers should also check with operational units within their organization (procurement, logistics, etc.) who may have interactions with certain types of businesses, and be able to support program teams as they design and implement programs.

More than 26 recommendations have been provided within this report, and are intended to be applied across four market systems: cereals, pulses, vegetables, and agricultural inputs. However, many of these recommendations apply regardless of the market system being addressed, and most will be more effective if used in combination. This will result in more nuanced and complex programming, but is likely to improve results. Implementers are encouraged to develop robust monitoring mechanisms, and utilize best practice guidance available in the Minimum Economic Recovery Standards (MERS) to ensure market-friendly programming has the greatest impact on the communities.

Annexes

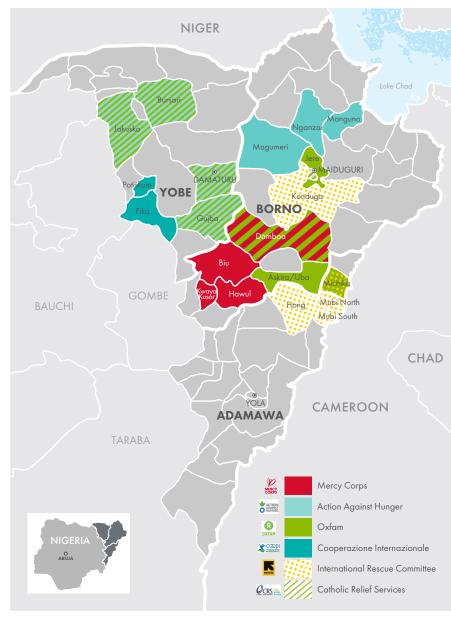
Methodology

The data collection process was designed and managed by a technical consultant specialized in market systems assessments and the Mercy Corps Nigeria Livelihoods and Market Systems lead. The data was collected by Mercy Corps and partner organizations Action Against Hunger (ACF), Catholic Relief Services (CRS),

Cooperazione Internazionale (COOPI), the International Rescue Committee (IRC), and Oxfam. Each partner consortium member runs a humanitarian assistance program in a particular geographical area in the Northeast, Adamawa was covered by IRC and Oxfam; North Borno was covered by ACF, CRS and Oxfam; South Borno was covered by Mercy Corps and Oxfam; and Yobe was covered by COOPI and CRS. Enumerators were recruited and trained by Mercy Corps and partners. Data was collected using SurveyCTO, a mobile-based software app, and was uploaded to a central server managed by Mercy Corps for monitoring and analysis.

For the assessment, a mixed-methods approach was used, which included: 1) desk research and a literature review; 2) field-level qualitative interviews; 3) quantitative enumeratorled surveys carried out across Borno, Yobe, and Adamawa; 4) in-depth interviews with high-level decision-makers in Maiduguri and Abuja; and 5) a further round of in-depth

DATA COLLECTION MAP



interviews with input suppliers and small businesses. A partner workshop was conducted at the start of the data collection (January 19-20, 2017) and at the end to validate findings (April 4, 2017). Prior to the kickoff workshop, a rapid assessment was carried out through a series of focus group discussions (FGDs) with farming communities. The findings of those FDGs were then used to inform and catalyze discussions in the workshop and shape the data collection going forward. Quantitative methods were used to objectively measure market dynamics with questions that were closed and categorized, while qualitative methods were used to gain an understanding of underlying motivations, opinions, attitudes, and perceptions. The questions used in qualitative research were open-ended to allow for discussion, exploration and probing.

Target groups for the assessment included:

- **)** Farmers/producers
-) Agriculture traders
-) Inputs suppliers
- **)** Transporters
- **>** Finance institutions
- **)** Agriculture processors
- **)** Infrastructure companies
- Humanitarian aid and development agencies
-) Government

Fieldwork

Following the kick-off workshop, a research plan was developed by Mercy Corps to identify the main areas where data would be collected and detailed research tools were designed. Due to the size and nature of the assessment, a phased approach was selected. The framework and tools used for this is available in Annex 6.

Field-level data gathering was divided into four phases:

- In-depth key informant interviews (KIIs): A qualitative question guide was developed, tested, and deployed by January 30, 2017. One hundred and twelve field-based interviews were carried out with farmers (producers), traders, transporters, inputs suppliers, and finance agents across Adamawa, Borno and Yobe. The information collected was used to inform the basis for the quantitative survey tool and to add depth and richness to subsequent analysis and insight. This phase ended on February 25, 2017.
- **Field-based enumerator survey (quantitative):** From February 25, 2017, to March 24, 2017, a statistical sample was developed and the quantitative survey tool was designed, tested, coded onto data collection software, and deployed. The sample was drawn from a combination of sample size and sample demographics. Sample size was determined using a standard statistical formula. The sample had to be large enough to provide adequate and robust data on the four selected market systems, the two primary market activities under investigation (production and inputs supply), and the roles of two key social groups (women and IDPs) across the three states. For the purposes of the sample, each state was considered as a separate population. A 95% confidence and 5% error level were set and a sample size

⁵² The formula used is available here https://www.surveymonkey.com/mp/sample-size-calculator/

was generated. A quality control factor was then applied to account for fieldwork (human) error. A stratified sampling technique was used to ensure that the sample was reflective of gender and status.⁵³ The sample was disaggregated by gender and IDP status, with 30% of respondents respectively hailing from these groups. Instructions were provided to the enumerators to seek out producers of crops in the selected market systems. On top of the sample for producers, a sample size for inputs suppliers was determined. The sample size produced by the calculation was an additional 500 respondents.⁵⁴ In the end, a total of 2282 respondents (1,622 producers and 660 Inputs Suppliers and Traders) were interviewed.

- In-depth interviews with decision-makers: Alongside the quantitative enumerator surveys, a second round of 436 in-depth qualitative interviews was carried out in May 2017 with both small and larger inputs suppliers, finance institutions, processors, infrastructure companies, and public sector representatives. Each of the six partner organizations was tasked with completing five to eight interviews. The aim of this phase was to understand decision-making dynamics within market institutions in the private sector and how they responded to localized economic crises and the impact of the Boko Haram insurgency, as well as to understand how aid agencies and public institutions cope with economic crises and the impact of the Boko Haram at a regional and national level.
- Additiona key informant interviews (KIIs): During the final round of interviews in July 2017, the six partners gathered more detailed information on marketplace infrastructure, grain storage, inputs distribution networks and the disaggregation of on-farm and market activities by gender, with a particular focus on input dealers and small businesses. Qualitative tools addressing these issues were designed and the partner organizations deployed teams of enumerators to gather information from the same locations they originally collected data in March. Additionally, Mercy Corps deployed teams of enumerators in Adamawa, Borno and Yobe focusing on the status of marketplaces and surrounding infrastructure in the Northeast. Data collection took place over a period of two weeks and concluded on 31st August with 85 interviews completed.

Literature Review

The literature review began in January 2017 and continued throughout data collection. A call was also made to the partner organizations to share key reports pertaining to markets and the humanitarian mission in Northeast Nigeria, and Mercy Corps leveraged its sector expertise to source additional reports. The technical consultant also carried out a period of desk research to identify information on Northeast Nigeria to fill gaps and strengthen the research tools used for data collection.

Limitations

Timing: The LMRA evaluated the effects of the insurgency on market systems and attempts to differentiate between systems in place prior to the insurgency, its state during the insurgency, and now. While the insurgency seems to be coming to an end, conflict cycles rarely have a clear beginning and ending. As

The experiences gained during the first qualitative phase of research demonstrated that without clear instructions on gender and status, there will be a dearth of women and IDP respondents. Using an alternative sampling technique may have produced results biased towards the male members of the host community. However, this assessment also recognizes that within communities there are significant gender dynamics in play at household level. Even if a woman is selected to respond to questions she may only be able to do so with her husband or eldest son present. In these cases, she may be free to speak or she may find herself editing her language or she may find her husband speaking for her. Many households are made up of multiple wives. In these cases, a woman selected to respond may do so whilst navigating her political standing in the household. In order to get data in which we can trust, enumerators must be well-trained to understand and judge these social dynamics effectively as well as seek out women who are able to select themselves into the process as respondents

⁵⁴ Input supply is an aggregated function. Qualitative research tells us that an aggregated function might represent 10 to 50 farmers (i.e. an input supplier may have up to 50 regular customers). Those farmer-customers might also purchase from multiple input suppliers. So, for the purposes of this assessment, the relationship between farmer and aggregated functions is set as 5:1 (20 per cent). A quality control factor was also applied

such, much of the data collected includes the present moment ("now") in the responses related to "during the insurgency". This makes particular sense with regards to slow-moving issues such as destroyed infrastructure. The qualitative data made some efforts to understand immediate changes, and in a few cases the data on "now" is disaggregated from responses related to "during the insurgency". For the purposes of providing a clear period for analysis, the height of the insurgency is considered approximately two years, beginning in January 2014 and ending in December 2016. It is difficult, to try to understand which market system issues were brought about by general economic crisis and those which were caused by the Boko Haram insurgency, as these two shocks are deeply interlinked.

Delays and Limited Access: Teams faced unplanned delays in data collection: poor roads and road closures slowed data collection, and certain marketplaces had limited accessibility. This was particularly an issue in Central and Northern Borno.

Restricted Access to Female Respondents and Key Informants: Despite having female enumerators, it was often difficult to access women due to cultural norms. In certain areas of Borno State, women are unable to speak freely, even to female enumerators. They may be home-bound or there may be sensitivities related to answering questions on their own or even with their husband present. Some households include multiple wives. In these, there was a delicate social dynamic in choosing who should represent that household's female voice. Husbands in households with multiple wives would often answer on behalf of all wives, and there was raised hostility toward interviewing women in general.

Market System Selection

The methodology used for market selection was a weighted rating system. A list of potential livelihoods and market systems were presented, built from the preliminary focus group discussions (FGDs). Discussions were held with field teams and program directors, information in literature reviews was considered, and discussions took place with partners in their region of expertise. Weighted criteria were then applied to each market system and evaluated. All organizations participated in the exercise. Criteria used included:

- Relevance for income: the market system offers high numbers of vulnerable households' income generation and employment creation opportunities
-) Relevance to target groups: vulnerable socio-economic groups, such as women, girls and IDPs, are involved in the market system
- Potential to intervene: restrictions or legal issues are unlikely to prevent potential impact in the market system (i.e., government, military, Boko Haram, other regulating actors)
- Resilience/sustainability: the market system has potential to adapt to the crisis context

Maize, sorghum, millet, cowpeas, beans, vegetables, goats, cattle, poultry, fish, transport, agriculture inputs, and finance were all considered for deeper analysis of the market system. However, based on the scoring process cereals (maize, sorghum, and millet), pulses (cowpeas, beans, groundnuts), vegetables, and agricultural inputs were selected. Livestock market chains, although important, were not selected because the target groups were much less likely to derive income from livestock, particularly women and the poorest wealth groups, and therefore livestock scored much lower in the rankings. The chart showing the final ranking scores, as determined during the partner meeting, is shown below.

				Po	otential M	arket Syste	ms						
Category of selection criteria	Selection criteria	Weight	Cereals (Sorghum & Millet)	Maize	Cowpeas /Beans	Vegetables	Shoats	Cattle	Poultry	Fish	Transport	Inputs	Finance
Relevance or Income	The market system offers high numbers of vulnerable HHs income generation and employment opportunities. The market system is significantly important for meeting HH needs.	5.00	15	13	15	13	13	11	11	8	11	12	12
Relevance to target group	Trader associations, government authorities	3.00	11	11	13	11	9	7	10	8	8	11	10
Potential to intervene	Restrictions or legal issues unlikely to prevent potential impact in the market system (gov't, military, other regulating actors, etc.)	3.00	12	13	15	13	10	11	10	5	8	11	9
Resilience/ Sustainability	The market system has potential to adapt to the crisis context	3.00	13	11	10	10	10	9	8	7	9	9	8
	Total Points		183	170	189	167	152	136	139	100	130	153	141
	Ranking		2	3	1	4	6	9	8	11	10	5	7

Market System Reports

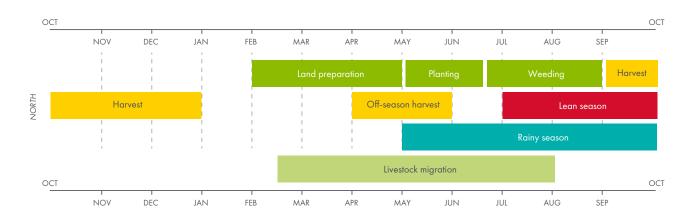
From January-July 2017, Mercy Corps, the International Rescue Committee, Oxfam, Action Against Hunger, Catholic Relief Services, and Cooperazione Internazionale undertook an assessment in Adamawa, Borno, and Yobe in Northeast (NE) Nigeria. The Livelihoods and Market Recovery Assessment (LMRA) for Northeast Nigeria was designed to help gain a deeper understanding of post-insurgency livelihood and market recovery strategies, and to identify opportunities for future market system-focused programming in this conflict-affected area. These market reports are an annex of that wider LMRA document. For the full report with recommendations and response options, please refer to the main LMRA document.

Based both on a series of discussions with farming communities early in the assessment and the market selection process with partners, four market systems were selected for analysis: cereals (millet, sorghum, and maize), pulses (cowpeas, beans, and groundnuts), vegetables (onions, tomatoes, peppers), and agricultural inputs (seeds, fertilizer).⁵⁵ While each crop has its own characteristics, they are grouped as agricultural subsectors (pulses, cereals, and vegetables) because they are generally traded through the same market actors and face similar market constraints. Working on the larger systems issues surrounding the subsector is likely to improve production volumes and quality regardless of an individual farmer's planting choice.

Seasonal Calendar

There are two growing seasons in the assessment areas (see chart below). The "long" season starts with planting in April/May and harvesting in August/September. The shorter season starts with planting in December and harvesting by February. The assessment found that farmers produce on average 3.5 bags of maize and sorghum during a long season. An average bag holds around 25kg, which means that a typical farmer would sell up to 90kg in one harvest. As of January/February 2017, major cereal staples were selling for between NGN 305 to NGN 365 per kg, an area-dependent increase of 15-35% over the prices for those commodities last year. FAO price monitoring in September 2017 showed that food prices were stable or declining, although this still meant they were at record highs.





⁵⁵ Weighted criteria was applied to each market system and evaluated. Criteria used included:

Relevance for income: the market system offers high numbers of vulnerable households income generation and employment creation opportunities

[·] Relevance to target groups: vulnerable socio-economic groups, such as women, girls and IDPs, are involved in the market system

[•] Potential to intervene: restrictions or legal issues are unlikely to prevent potential impact in the market system (i.e., Government, military, Boko Haram, other regulating actors, etc.)

[•] Resilience / sustainability: the market system has potential to adapt to the crisis context

WFP, mVAM Nigeria Bulletin #6: January/February 2017 (as of Sept 2017 this information had not been updated online)

⁵⁷ http://www.fao.org/giews/food-prices/price-warnings/detail/en/c/1036697/

Marketplace Overview

As you will see in the market maps that follow, farmers sell their crops through a variety of channels:

- barter with neighbors. The prices received for the crop are generally lower, but farmers choose this option for many reasons. They may not want to leave the farm unsupervised, they may be concerned about security on the roads, or they may not have the household labor to do farm chores while away, or the funds to pay someone else. Since the insurgency, farmers have also seen a drop in the number of traders coming buy at farm gate, as there are fewer traders willing and able to travel the roads. Farmers may prefer to work with traders who will come to them or provide other benefits such as informal credit, which allows the farmer to pay farm laborers to get the harvest ready for that trader. In general, the trader will then then simply subtract the money borrowed from the payment for the crop at the time of collection, and the transport costs are borne entirely by the trader. Farmers select traders based on proximity and lead farmers often play the role of both producer and local trader.
- Local marketplaces: Farmers sell to local customers and traders at small localized markets. Often these markets serve the immediate local area, and traders who buy here do so in order to sell the goods to larger traders, processors, or retail outlets. When insecurity increases, the links between small local markets and the larger "feeder" markets are vulnerable to restrictions and may get temporarily cut. One female trader in South Borno explained that she buys her product from whoever finds her at the market: "I'm not a big-time trader" she explains, "I rely on farmers to bring [their product] to me". Several traders like this described suffering from the same constraint: not knowing which suppliers are available, what produce they are selling, and which marketplace they are likely to be found. There is not enough information in the system to actively seek out suppliers in the market, explore options, and get the best price. This is an ongoing system constraint that has been exacerbated by the conflict. Traders often complain that this means they often take the price offered by farmer, only realizing later that they will lose out when reselling in larger markets because prices have decreased.
- Processors: There are a small number of food processors in the market who carry out simple processing such as maize grinding or groundnut oil production with their own machines, and then sell in the local marketplace. These small processors will buy directly from farmers who have brought their goods to the local market.
- Traders: Many farmers sell to traders, and some act as traders themselves. Traders generally provide the role of bulking goods, and then will take these goods on to other markets. Often they will sort and/or clean the product as well. Traders are likely to work with a variety of agricultural products, depending on what is available, what is in demand, and market prices. Traders will try to check the price of goods in other markets when negotiating prices. However, in some markets there is a local market committee that sets the prices of different commodities on a given day. This system is designed to make sure that both farmer and trader get a fair price. However, it is clear from the conflicting reports that the communication systems do not always work. Larger traders then become the source of goods flowing to urban areas, restaurants and hotels, industrial food processors and larger markets. Traders may own small warehouses, or have access to warehouses as part of a traders association.
- **Larger regional marketplaces**: These larger markets draw produce from multiple smaller markets in addition to local farmers. Larger traders, processors, and urban retail outfits will purchase in these markets for transport to other parts of the country, and for export. The state of the roads and transport system is crucial for these markets.

- Regional traders: Larger traders are often intermediaries, carrying goods to larger markets like Maiduguri or Damaturu, or more distant marketplaces such as Mubi, and rely on economies of scale to keep costs low. As businesses, they were the hardest hit by the insurgency, particularly with regards to trade routes being restricted or completely cut off, increased cost of fuel as longer alternative routes needed to be found, and the increased cost of labor as routes became more dangerous or just took longer due to checkpoints and poor roads. These costs increases were generally added to the price of goods although, at times, the market would dictate that those costs come from trader margins.
- National marketplaces: Some traders report travelling as far as Lagos to sell their goods. However, Lagos is now less accessible due to traffic congestion and fuel shortages, and so some traders report selling in Tudun Wali outside of Lagos, 1300km away.
- **Cross-border marketplaces:** The Northeast in particular has a long trade history with the Lake Chad Basin, and through it, trade routes to East and Central Africa. Prior to the insurgency, it was more common to sell cross-border than to Lagos.

Cereal Market System

Maize, millet, and sorghum were identified by farmers as the most important crops in the assessment areas. Given that they make up a significant portion of household caloric intake and income, and in the case of maize are often part of humanitarian assistance packages, understanding these markets better has the potential to improve humanitarian programming.

FIGURE 1: PREFERRED CROPS ACROSS NORTHEAST NIGERIA, BY STATE

	Crops	NE Nigeria	Adamawa	North Borno	South Borno	Yobe
1	Maize	49%	81%	35%	80%	17%
2	Millet	40%	3%	60%	16%	62%
3	Cowpeas/Beans	32%	32%	40%	34%	23%
4	Groundnut	31%	52%	34%	33%	19%
5	Sorghum	30%	18%	24%	26%	48%
6	Rice	12%	25%	5%	12%	6%
7	Vegetables	4%	1%	4%	5%	5%

Farmers indicated that the selected crops were most often prioritized because they are considered easy to grow, there is a market for the produce, seeds are available, and people are familiar with how to grow them. In general, the assessment found that the ranking of important crops, and reasons for selecting them remained the same for men and women and for host community, IDPs, and returnees.

The assessment also found that intercropping is not uncommon, with around one in three farmers cultivating both cowpeas or beans and maize. Intercropping allows farmers to diversify income streams and helps to balance the soil nutrients as nutrients taken out by one crop are often returned to the soil by the other. However, intercropping can result in lower yields than mono-cropping, as crops compete for space and water, and mechanized farming

and harvesting are also difficult when intercropping techniques are used. Nevertheless, the Nigeria Early Generation Seed Study found that intercropping was more profitable than mono-cropping.⁵⁸

Maize

In Adamawa and South Borno, maize is the most commonly grown cereal and generates a higher yield than sorghum. However, maize is less resistant to drought, pests, and disease than millet or sorghum. In general, maize also commands a higher price on the market than millet or sorghum. Crop residue from maize, millet, and sorghum is frequently used as livestock fodder and for roofing or building materials.

Farmers generally use stored seeds for maize: the Nigeria Early Generation Seed Study indicates that only about 20% of Nigerian farmers are using hybrid seeds. Saved seed has been an important coping mechanism during the insurgency, but limits the opportunity for introducing improved varieties, including drought-resistant ones. Further exacerbating the issues in the maize sector are the recent restrictions on the cultivation of tall crops such as maize, where insurgents can easily hide. Farmers have therefore shifted to growing other cash crops such as groundnuts, cowpeas, and beans. Maize is also grown in North Borno and Yobe along the riverbanks, where basic irrigation with buckets is easier, although only about 10% of maize in Nigeria is irrigated. In many areas, labor for maize is shared and paid through share-cropping arrangements due to the lack of cash to pay laborers.

According to the Nigeria Early Generation Seed Study approximately 11% of maize produced, or approximately 1 million metric tons annually, is used as food, saved seed, or lost post-harvest, while another 25% is purchased for household use in some form. The rest is sold commercially in both food and animal processing sectors. According to International Institute of Tropical Agriculture estimates, maize demand will increase 3.2% per year over the next five years due to overall population growth and increasing urbanization. Maize has become indispensable for food security and is also in demand as an industrial crop. Brewery demand for maize grits is growing in tandem with the consumption of beer, but domestic production cannot fully meet this need due to competitive demand from other maize processing sectors. Breweries instead turn to maize alternatives such as barley and sorghum. Utilizing corn as feed is also increasing with the recent steady growth in the poultry and aquaculture sectors.

Millet and Sorghum

Millet is the priority crop in North Borno and Yobe, and the Nigeria Early Generation Seed Study report indicates that in the Northeast, millet is grown by 31% of farmers and sorghum by 23% of farmers. Both millet and sorghum are well-suited to the environment in Borno and Yobe, which is hot and dry and sees limited rainfall. Again, farmers generally use saved seeds; hybrid seeds are available in the market but require more fertilizer and labor. There is anecdotal evidence that farmers grow millet and sorghum on the rooftops of households if they are unable to access land. Maringa is the largest producer of millet in South Borno and their millet is consumed as a substitute for rice. Anecdotal evidence suggests that IDPs who have come to the area have brought knowledge and skills in millet farming. IDPs in Yobe have very little access to land because of high rental costs. In these cases, IDPs use share-cropping arrangements to gain access (where land "rent" is paid in produce).

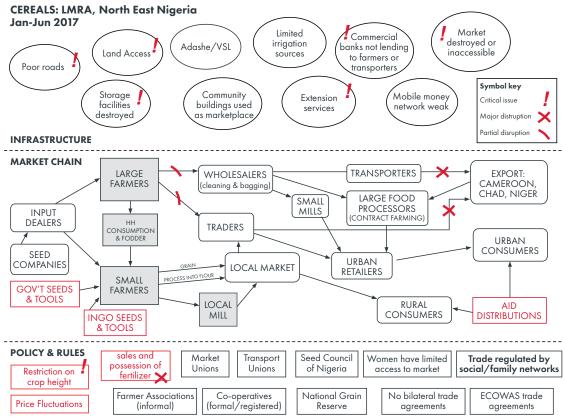
Sorghum production is primarily in Northeast Nigeria. It plays an important role in food security but also in the beverage industry for both alcoholic and non-alcoholic drinks. According to USDA's Nigeria Grain and Feed Annual, Sorghum production has slightly increased over last year, in part due to increasing prices for both food and industrial use sorghum. Like other cereals, there has been limited support from the Government of Nigeria for farmers since 2014. There is also increasing demand for sorghum in regional markets.

⁵⁸ Nigeria Early Generation Seed Study, http://www.africaleadftf.org/wp-content/uploads/2016/09/Nigeria-EGS-Study-Final-Report-August-2016.pdf

Market Disruptions

As the market map below shows, the greatest disruptions are to the crops bound for export and other larger markets. Larger farmers with more than 10 hectares are likely to be the hardest hit. Smaller farmers have been able to maintain sales to neighbors and in local markets, but with a significant reduction for any goods that would previously have been bulked and moved to more distant markets. As previously mentioned, transport costs and insecurity on the roads makes the movement of goods very difficult. This has a significant impact on labor income for the poorest, and also restricts food supplies through the region, particularly to urban areas.

FIGURE 18: CEREAL MARKET SYSTEM MAP, NE NIGERIA – JANUARY-JUNE 2017



The assessment showed that before the crisis, 98% of farmers sold some portion of their crop. At the height of the insurgency this number was down to 83%, presumably because farmers could not reach the marketplace. This figure is consistent with the number of farmers and traders reporting that they had to switch marketplaces. The trend for sales is once again moving in the right direction: 88% of farmers are reporting that they are selling some portion of their crops. However, because many farmers are able to access land, but not all of their plots (those that are further from the HH are less likely to be accessible, usually for security reasons, as discussed in the insecurity and restricted movement and limited access to agriculture inputs and extension-related services sections of the main report). Overall production volumes are likely to be lower than these numbers would initially imply. This analysis is backed up by recent FEWSNET reports reporting anticipated shortages through September despite relatively positive national production levels.⁵⁹

⁵⁹ http://www.fews.net/west-africa/nigeria

Input suppliers are an important link in the supply chain as they provide smallholder farmers with access to a variety of inputs, and often the credit to obtain them. According to the Nigeria Early Generation Seed Study agro-input suppliers are the most important distributors of seed (mainly maize, rice, and soybean) and hybrid seeds produced by local private seed companies, typically buying products from seed companies at a 10% discount and selling them at the company price. They do, however face challenges with counterfeit seeds: one input supplier in Potiskum said that to seek out the reputable dealers, he is willing to travel up to 300km away, "to avoid buying fake product." The presence of counterfeit seeds results in farmers being skeptical about improved seeds. Due to limited supply of starter seed, many local seed companies fraudulently package grains and sell them to farmers, who experienced low germination rates, high incidence of diseases, and poor yields. Input suppliers have the potential to be a key leverage point in providing extension support to farmers in more remote areas not reached by government extension services. But to do this, they also need skills upgrading and support.

The processing sector in the Northeast is underdeveloped. First level process is typically done by women with very rudimentary equipment, and even larger volumes of processing are often done with inefficient technology, which contributes to a gap in the supply of processed foods. Further exploration of the potential for upgrading processing could potentially improve food security and generate job opportunities, if the market for processed food is big enough.

At the time of the assessment, the supply of seeds by humanitarian actors did not come out as a market disruption, presumably because of the low volumes that were being provided. However, as we have seen in many countries around the world, seed markets are easily disrupted if large volumes of seed are provided by the government or NGOs. Humanitarian actors are strongly encouraged to avoid the donation of seed and instead use cash or vouchers to ensure these needs are met.

Inputs to Cereal Value Chains

There are over 150 registered seed companies in Nigeria, the majority of which are domestic and produce less than 1,000 MT of seeds annually. However, large international companies—including Syngenta and Monsanto—have entered the commercial seed production and distribution markets in recent years. The majority of locally produced seeds are open-pollinating varieties (OPVs). Seed companies in the north produce more hybrid seeds than OPV seeds, resulting in greater maize hybrid seed usage in the region. Part of this is because maize hybrids are better suited to the agro-ecological conditions in the north, but also because the north has received more attention due to the potential for higher maize production there. However, seed companies face severe problems, including: high production costs; competition from cheaper, uncertified seeds in the informal market; fake and illegal packaging of seeds using brand names of registered seed companies; and out growers who fail to meet their contractual requirements.

Because the formal system is not able to provide enough quality maize seed to meet demand, the informal market plays a large and important role and about 50% of farmers receive maize seed through the informal system.⁶¹ As with many other crops, much of the demand for seed need is met by farmers saving their own seed. However, due to the high prevalence of disease, farmers cannot reuse their own seed indefinitely and must refresh it through the formal or, more often, the informal system. Informal sources of maize seed include neighboring farmers, local food markets, and seed traders where large quantities of grain are sold as seed.

The greatest barriers for farmers using improved seed are awareness, cost, and the availability of companion inputs such as fertilizer, which are required for hybrid seeds to meet their full yield potential. Hybrid maize costs about \$1.26 per kg compared to OPV which is sold at around \$1 per kg. In addition, current hybrids require high

⁶⁰ NASC Annual Report 2014 (most recent year) at http://seedcouncil.gov.ng/uploads/2017/02/2014_annual_report.pdf

⁶¹ Nigeria Early Generation Seed Study, 2016

levels of non-seed inputs such as fertilizer to achieve yield benefits as compared to OPVs, which makes hybrids less appealing to many farmers who can't afford these additions. While there have been several drought tolerant maize varieties released in Nigeria which require less intensive input use, adoption is quite low.

As discussed in the Insecurity and restricted movement and limited access to agriculture inputs and extension-related services sections of the main report, the movement of fertilizer remains a significant problem for farmers and input suppliers. Efforts should be made to increase the bulking and marketing of natural fertilizers and alternative fertilizers currently available. Additional discussion on agricultural inputs can also be found in the agricultural inputs market system report below.

Additional Barriers to Production and Yield

Another important yield-limiting factor are striga and aflatoxin contaminations. Striga is a type of parasitic plant that weakens crops, making it yield 20-100% less and sometimes leaves farmers with little or no grain at harvest. Aflatoxin is a poison produced by the fungus Aspergillus flavus that resides in soil and infects crops while they are growing. Unfortunately it cannot be seen, smelled, or tasted, and cannot be destroyed by cooking. Contamination of maize by aflatoxin is a serious concern for storage facilities because it renders the maize unsafe for human consumption and this concern is shared by the Federal Government of Nigeria and the international community. Contaminated maize constitutes a major economic loss in food production, and farmers need to be trained in how to prevent, identify, and address it. More than half of the input suppliers interviewed for this assessment acknowledged that aflatoxin was a regular problem for the storage facilities used in their community.

Pulses Market System

Overview

Nigeria is the second-largest soybean producer in Sub-Saharan Africa and the largest producer of cowpeas in the world, suggesting that there is a strong case for investment in this value chain. The pulses considered most important by farmers were cowpeas, beans and groundnuts, all a significant source of protein and often included in humanitarian assistance packages. As with maize, these crops were most often prioritized by farmers because they are considered easy to grow, there is a good market for the produce, seeds are available, and people are familiar with how to grow them. The assessment found that in general, the ranking of important crops and reasons for selecting them remained the same for men and women and for host community, IDPs, and returnees.

From a food security perspective, it is important to note that cowpeas, beans, and groundnuts are all good sources of iron, and iron deficiency is a particular problem in Northeast Nigeria. The selection of these crops will help ensure that local production meets urgent nutrient needs in addition to being suitable for supporting livelihoods.

As mentioned above, the assessment found that intercropping is not uncommon. Mechanized farming and harvesting are also more difficult when intercropping techniques are used. Nevertheless, the Nigeria Early Generation Seed Study⁶² report found that intercropping was more profitable overall than mono-cropping.

Cowpeas and Soybeans

Cowpeas and beans are an important crop for the farmers interviewed, particularly in Borno. Cowpeas and beans also earn high prices in the market in Adamawa and in North Borno they are in high demand from both local and international buyers. In South Borno, cowpeas and beans grow well due to climate and soil conditions and there are good markets in

⁶² Nigeria Early Generation Seed Study, http://www.africaleadftf.org/wp-content/uploads/2016/09/Nigeria-EGS-Study-Final-Report-August-2016.pdf

Biu, Hawul, and Kwaya Kusar. As a legume, pulses also help to fix nitrogen into the soil and as a result, are useful as a natural fertilizer for other crops. Bean and cowpea crop residues are also used as animal feed in some areas.

Beans are an important cash crop for farmers and a good raw material for oil and cake extraction, as well as livestock and poultry feed. Demand for soy-based products in Nigeria is substantial, especially among commercial consumers in the food, paint, pharmaceutical, and confectionery industries. More than 70% of soy is processed for industrial use. However, the soybean formal seed sector represents only an estimated 20% of national planted area, with the informal seed sector playing a larger role through farmer-saved seed or seed obtained from neighboring farmers. A rapidly growing animal feed sector in Nigeria has also increased demand for soybean for industrial processing, which should support the development and promotion of improved, more productive varieties.

Soybean yields are low in Nigeria compared to other African countries. One factor contributing to low yields is poor agricultural practices. Farmers are not aware of agricultural best practices and proper use of agrochemicals for improved yields. Poor access to inputs such as fertilizer and certified seeds, as well as lack of mechanized agricultural systems, translates into low yields. Inefficient storage practices also play a role, leading to inconsistent supply levels, price volatility, and premature harvesting to take advantage of high prices.⁶⁴

Groundnuts

Groundnuts were ranked by farmers in Adamawa as the second-most important crop. Groundnuts also provide an important component of household consumption due to their high protein levels and contribution to micronutrients. Groundnut is sold in the market and then processed, usually by women, into condiments (for stews) or beancakes (often sold on the side of the road). Historically in Nigeria, groundnut production has suffered because of the prevalence of pest and diseases, specifically the groundnut rosette epidemics and foliar diseases, in addition to aflatoxin contamination. There are improved varieties of seeds available for groundnuts, but they are limited in availability across the Northeast of Nigeria. The underdeveloped inputs sector means that improved seeds are not widely available, nor are the the chemicals, equipment and machinery required to farm groundnuts effectively and cope with pest and disease.

Market Disruptions

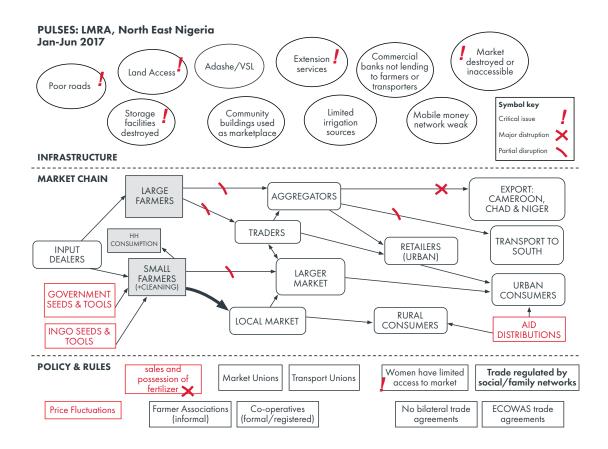
The market system map below shows, once again, that the greatest disruptions are for the proportion of crops that would, in peacetime, go to the export market through traders and to southern processing facilities. In the current context, those farmers who are able to plant amounts larger than their household needs will likely have good profits given the production shortfalls in the Northeast and rising food costs due to the depreciation of the Naira. However, the more likely scenario for larger farmers with more than 10 hectares will be significantly reduced production because of a reduction in areas planted due to security concerns. This will have a direct effect on the poor who would normally provide agriculture labor to large farmers to supplement their income during the lean period. This also restricts food supplies across the Northeast, and to urban areas in particular, where markets remain significantly disrupted. Input dealers consistently reported to assessment staff that "more people are getting into farming". This is likely due to the high levels of agricultural input distributions in the last planting season, but it is not yet reflected in production levels overall. The assessment team's analysis is corroborated in FEWSNET reports anticipating shortages through September, despite the relatively positive national production levels.⁶⁶

⁶³ Nigeria Early Generation Seed Study, 2016

⁶⁴ Ibio

^{65 (2014), &#}x27;A Farmer's Guide to Groundnut Production in Nigeria, International Crops Research Institute for the Semi-Arid Tropics (ICRISAT): http://oar.icrisat.org/8856/1/2015-084%20Gnut%20Production%20in%20Nigeria.pdf

⁶⁶ http://www.fews.net/west-africa/nigeria/food-security-outlook/june-2017



Approximately 10% of the production of pulses stays in the household as saved seed, household nutrition, and post-harvest losses while another 5% is purchased by other households for consumption. The remainder is normally industrially processed: as food products (15%); animal feed (60%); or other industrial purposes (10%) such as adhesives, haircare products, and polyesters. ⁶⁷ But in order to meet current demand, soybeans must be imported to from neighboring countries or from the US and Argentina, and this trend is expected to escalate, in part because of growth in the poultry sector. Given the challenges with transport, land access, and poor quality roads in the Northeast, supply is likely to continue to be constrained. Although there are anecdotal reports of informal cross-border soybean exports, given the border closures and insecurity in the north, there is currently no formal, organized trade.

Perhaps because of maize's role as the dominant national cereal, or the high prices currently garnered by sorghum, production improvements for beans have stalled. Yields have stagnated over the last ten years as a result, despite the increase in private sector demand and the building of new processing facilities in both the North and South.⁶⁸ Obviously, the closed borders in the Northeast do not encourage further production improvements. Currently, processing capacities for soybeans in Nigeria exceeds national production and supply levels, a situation further exacerbated by current security issues.

At the time of the assessment, the supply of seeds by humanitarian actors did not come out as a significant market disruption, presumably because of the low volumes that were being provided compared to the needs. However,

⁶⁷ Nigeria Early Generation Seed Study, 2016

⁶⁸ Ibid

as we have seen in many countries around the world, seed markets are easily disrupted if large volumes of seed are provided by the government or NGOs. As mentioned previously humanitarian actors are strongly encouraged to avoid the donation of seed and instead use cash or vouchers to ensure these needs are met.

Inputs to the Value Chains for Pulses

As mentioned previously, the informal seed market plays a large and important role in soybean production, representing about 80% of planted area: farmer-saved seed, trading seed with neighbors, local food markets, and seed traders. Some farmers obtain seeds from agro-dealers and seed companies for initial planting, and then save a portion of their harvested grain to plant in the next season. Farmers will repeat this practice for several years to minimize the cost of purchasing new seed. However, this practice increases the incidence of disease while also resulting in declining yields.

Because of a weak extension system and thin input supplier networks, farmers are also unaware of many of the improved varieties available, and often do not see the same need to plant improved bean varieties as they might with maize. Although farmers are wary of counterfeit seeds, planting improved varieties would reduce susceptibility to rust; a fungal disease that results in reddish or brownish patches and accounts for 40% of soybean losses in Nigeria. Although adoption rates of improved soybeans (older, less productive varieties, but still improved) are high at approximately 92% according to figures from National Agricultural Seed Council there is low demand for newly released varieties because farmers are often unaware of them. This lack of awareness means that farmers do not request them and therefore input suppliers do not stock them. Input suppliers have shown themselves willing to source products not in stock when requested.

Additional Barriers

Cowpea/bean storage facilities also need to be careful to avoid aflatoxin outbreaks. Contaminated crops constitute a major economic loss in food production. Nigeria was previously a leader in groundnut production, but has been shut out of the EU markets due to aflatoxin issues. Therefor farmers need to be trained in how to prevent, identify, and address these contaminations.

Vegetable Market System

Overview

Less than 5% of farmers classified vegetables as important when asked, but traders painted a different picture. Several noted that their greatest volumes traded were in vegetables. Certainly, from a food security perspective, vegetables are critical to dietary diversity and proper nutrition.

Soil conditions in the Northeast are conducive to vegetable production, and in the assessment areas, vegetables are produced with both rain-fed and irrigated water systems. Farmers who irrigate or use casual labor generally do not factor these costs into the price at which they sell vegetables. If prices are not good at the markets, farmers will continue to farm vegetables but will diversify into petty trade to supplement income. Labor comes first from the family, and at certain times like planting or harvest time additional casual labor may be needed. IDPs are often involved in this work and are more likely to be paid in cash, as vegetables are regularly sold in the market and thus are cash-generating. This is in contrast to maize farming labor, where IDPs may be paid in produce for their labor.

In an average year, there may be 3-4 harvests of vegetables, providing a small income stream for farmers even during the "off-season" when the cash crops (cereals and beans) are not generating income. Some farmers dry the harvest of tomatoes and peppers, to store and sell during the high season. This activity is typically done by women at home, using the sun and traditional methods, and using no extra labor. It may require specific

storage units in the home. Interestingly, women did not report that vegetables were as important as other crops, despite the fact that it is very common for most women to cultivate vegetables in kitchen gardens—as well as on farmland—for everyday household consumption. This may be an issue of perception—women might not perceive vegetables as important as cereals because of the investment levels those receive, or because vegetables regularly face gluts in the market (when many farmers bring the same crop at the same time) so they are seen as low-value crops. From a food security perspective, Northeast Nigeria has problems with vitamin A deficiency, and tomatoes are high in vitamin A.

Market Disruption

Below is the market system map for vegetables showing the same disruptions that are faced by all farmers: poor roads; poor security on roads and at outlying farm plots; closed borders reducing the opportunity for income; and transport restrictions and delays, which are particularly problematic for perishable goods like fresh vegetables. Land access is also an issue, although the data does not tell us what proportion of land is allocated to which crops, and therefore the impact of the restrictions on planting vegetables specifically is not known. Given that farmers are accessing some, but not all, of their land, and that people are staying closer to the homestead, crops for household consumption are likely to be prioritized. Vegetables do not score well when farmers are asked about priority crops, and yet they provide a small but steady stream of income and are important for food security and nutrition. Helping farmers and women farmers in particular, to understand the importance of vegetables in household food security and dietary diversity should be part of any financial literacy training or agribusiness-related training provided.

VEGETABLES: LMRA, North East Nigeria Jan-Jun 2017 Commercial Market Limited banks not lending destroyed or irrigation Land Access Adashe/VSL to farmers or inaccessible transporters Poor roads Community Storage Mobile money Extension Critical issue buildings used facilities services network weal as marketplace destroved Major distruption **INFRASTRUCTURE MARKET CHAIN** INSTITUTIONS LARGE WHOLESALERS **SCHOOLS** FARMERS URBAN CONSUMERS RETAILERS TRANSPORTERS **INPUT TRADERS** HH CONSUMPTION DEALERS **HOTELS &** RESTAURANTS **SEED SMALL** COMPANIES LOCAL RURAI MARKET CONSUMERS WOMEN'S INGO SEEDS & TOOLS **POLICY & RULES** sales and Market Transport Women have limited Trade regulated by possession of Unions Unions social/family networks access to market fertilizer 🗙 Farmer Associations Price Fluctuations Co-operatives (formal/registered)

FIGURE 20: VEGETABLE MARKET SYSTEM MAP FOR NORTHEAST NIGERIA – JANUARY-JUNE 2017

Many women are not able to travel regularly to the marketplace to sell produce, and therefore are unable to survey the market or assess prices. As a result, women may be more susceptible to price crashes when there is an oversupply, and less likely to know which vegetables are more in demand. Any intervention seeking to work with women farmers should seek creative ways to help them get this market information, and help them manage supply and demand issues, including support for off-season production or new varieties.

In contrast, traders interviewed, especially larger ones, were well aware of the importance of vegetables, and some indicated that vegetables provided their highest volume of trade. Better market linkages between traders and vegetable farmers as well as increased capacity for smallholder farmers to aggregate and negotiate prices for vegetables is important for increasing household income from vegetables.

Very limited extension support is available for those growing vegetables, because limited government resources are directed towards high-value or export crops such as maize and beans. Identifying ways for the private sector or women's groups to provide additional extension support in line with agribusiness training could also boost incomes from vegetable growing. See the recommendations and response options for the market-friendly humanitarian aid and cross-cutting issues sections to find more specific programming suggestions regarding food security crops such as vegetables.

Agricultural Inputs Market System

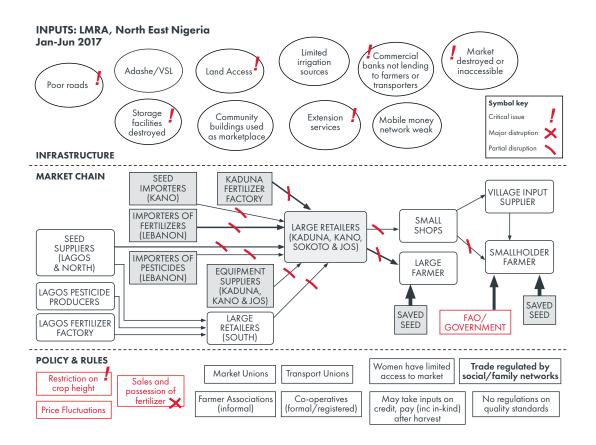
Overview

Because constraints on agricultural inputs have been discussed in the limited access to agricultural inputs and extension-related services section of this document, this appendix provides additional background information on market dynamics for agricultural inputs.

Agriculture inputs include a range of items: seeds, empty sacks, machinery, farm tools, fertilizer, herbicides, pesticide, and agriculture equipment for irrigation. Nearly 85% of the farmers interviewed reported that they buy inputs, and there was no significant difference in these levels for women or IDP/Returnees. The assessment found that farmers are more likely to buy seeds and fertilizers for cereals and legumes (maize, millet, cowpeas or beans, sorghum and groundnuts) and far less likely to buy seeds and fertilizer for vegetables. Farmer associations seemed to be more important for accessing inputs in Adamawa than in any other area, with twice as many inputs being accessed through this route. The market systems map below shows how these items normally come into communities and where the disruptions currently fall.

Market Disruptions

In the market systems map, the effect of the insecurity and poor roads is easy to see: higher transport costs; poor road conditions; unclear administrative requirements at checkpoints; and general insecurity all create barriers to the distribution of inputs. This is not to say that supplies are completely cut off, but that the impact is significant in that 'normal' volumes of trade are not possible and there is a corresponding price impact for farmers wanting to purchase inputs which in turn creates production challenges. This reduction in trade volume is added to the existing issue of a limited outreach of input suppliers and limited sales points in rural areas.



Large international companies including Syngenta and Monsanto have started commercial seed production and distribution market in recent years;⁶⁹ but the majority of locally produced seeds are open-pollinating varieties (OPVs). Local seed companies in the north produce more hybrid seeds than OPV seeds, resulting in greater maize hybrid seed usage in the region.⁷⁰ This is in part because maize hybrids are better suited to the agro-ecological conditions in the north--the north has received more attention due to the higher production potential for maize. However, seed companies face severe problems, including high production costs; competition from cheaper, uncertified seeds in the informal market; fake and illegal packaging of seeds using brand names of registered seed companies; and out growers who fail to meet their contractual agreements.

Agriculture input suppliers, particularly in rural area, generally sell inputs from a physical shop in the marketplace. The shop normally has storage space to allow the input supplier to buy stock in larger quantities to sell over time. Depending on the size and location of the inputs supplier, s/he will buy stock from a producer or distributor, or in more rural areas from large urban retailers. Bulk products are repackaged into smaller quantities –typically ½kg, 1 kg, 2kg - and the cost of transport and a mark-up are added before selling to local customers. An input supplier selling to individual farmers may add NGN 20 markup while an inputs supplier that is part of an association adds NGN 50, possibly to cover the additional cost of association membership fees. As the map shows (with a lighterweight arrow) the volumes being traded reduce at each point in the market chain, until the village-level is reached. Here sales are limited in both volume and outreach for all input types.

⁶⁹ http://www.africaleadftf.org/wp-content/uploads/2016/09/Nigeria-EGS-Study-Final-Report-August-2016.pdf

⁷⁰ NASC Annual Report 2014 (most recent year) at http://seedcouncil.gov.ng/uploads/2017/02/2014_annual_report.pdf

Larger input suppliers may make deliveries to customers in the village, particularly for farmers who place large orders. About half of input suppliers hire agents to sell in the villages; and about a third of these agents are women. They receive stock from the input supplier and take it to the rural areas where they sell to the farmers. An input supplier in Kwaya Kusar reported adding supplies to trucks that were heading into the villages to buy livestock in order to deliver to his customers. Agents are normally paid either through lump sum payments, a sales commission (around 10%), or through free goods and services (free inputs). A female agent may belong to a women's groups in the community and use this as a mechanism to market and sell inputs. For example, in Benisheikh, farmers reported that they are happy buying from input agent within the community as they sell at an affordable rate. The agent is also a useful conduit for information: "We farmers in the community can explain to them exactly what we need so they can get it for us. They really understand the local materials [inputs] we use here in the community."

Inputs suppliers may also set up rural outlets to sell inputs deeper in rural areas. These outlets are very small shops, typically mere kiosks, and are often run by individuals with limited product knowledge. To finance this, an input kiosk at village level will add on another margin to compensate for transportation costs. The furthest reported distance from an input supplier in the marketplace to an input kiosk in the village was 140km, from Maiduguri to Monguno. In South Borno, an input supplier sells locally within Biu as well as in nearby LGAs such as, Hawul, Kwaya Kusar and Damboa, which are from 50km to 100km away. The map below shows the linkages between input suppliers and where they sell and buy to provide a better understanding of the network of input suppliers.

Some inputs suppliers reported that during the insurgency, if the marketplace and the input supplier shops were inaccessible, input suppliers would sell inputs from their home. Some customers would then come to the home to collect inputs. However, this service would only be extended to customers whom the input suppliers knew well.

Input providers often do not have training or any information new seed varieties or products that become available. Although they have the potential to be an important source of information and knowledge for farmers, in practice they are often ill-informed. Strengthening their capacity and ensuring they are able to source information on new products and practices as they come out would have a two-fold effect: they could provide better information to farmers and act as informal extension agents while also increasing their own income through the sales of additional products. Agriculture Development Programs (ADPs) remain the main agencies responsible for public extension delivery at the grassroots level. However, ADP activities across the country are hampered by inadequate funding and low technical capabilities to carry out effective extension delivery. According to a recent survey, approximately 60% of ADP staff lack the necessary expertise to train farmers on good agricultural practices, while 75% do not have the equipment needed for field training due to lack of funding. These problems have led local governments to become more involved in extension delivery. However, local governments are plagued by the same issues of poor staff knowledge and scarce funding. There are good examples of private sector networks and structures providing complementary support to government extension services: see the main report for recommendations and response options.

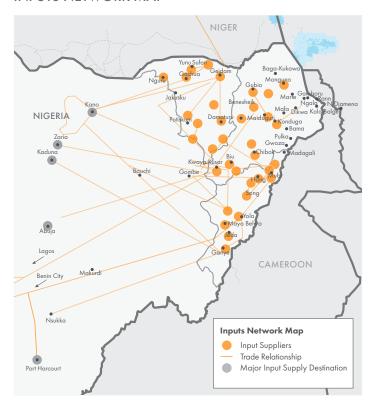
Input wholesalers (distributors) buy their products from large manufacturers or importers and are based in larger cities. Inputs suppliers based in smaller towns may travel as far as 135km to reach distributors. The main towns from where smaller input suppliers source their inputs are Bauchi, Gombe, Kano, Maiduguri, and Lagos. One input supplier in Potiskum said that to seek out the reputable dealers he is willing to travel up to 300km away, "to avoid buying fake product." On average, an input supplier will travel 140km to buy stocks of inputs. The furthest reported journey was 2,200km. Some input suppliers reported that if the roads were completely blocked and impassable, then they would switch distributors and source inputs closer to home. One input supplier commented

⁷¹ Agriculture Extension in Nigeria's Transformation Agenda: Key Recommendations Based on a Field Study, 2015; https://escijournals.net/index.php/lJAE/article/download/1104/604

that the distance was not as big a problem as the state of the roads. The conditions of the road to Maiduguri have worsened, meaning that more time is taken to do the same journey. The impact for this input supplier is the delay and the effect of the delay on the business. "A breakdown of vehicles can mean that I spend one or two days on road while customers await products."

When farmers were asked to describe the type of business where they purchased inputs, most farmers indicated that they buy inputs from single input suppliers: seeds are bought from a seed supplier and fertilizer is bought from a fertilizer supplier. Nearly 50% of farmers buy seeds and fertilizer within the village. Although the existence of villagebased inputs supply means that farmers are more likely to get access to inputs, this also means that the price of inputs can be higher, as is often seen in single product supply chains. Farmers are buying inputs from different actors and so potentially incurring a cost at each point. Around 10% of farmers buy from multiple input suppliers: retailers

INPUTS NETWORK MAP



who sell a bundle of products to farmers, and it is worth exploring whether more inputs or services can be bundled. This has the potential to expand village level-businesses, reduce costs for farmers, and provide a clearer focal point for private sector-led complementary extension services.

If Humanitarian actors are going to encourage the use of improved seeds, it is essential that complementary inputs such as fertilizer are considered, as improved seeds will not perform as well without them. However, given the challenges of transportation, fertilizer has the potential to become a serious challenge (see the insecurity and restricted movement section above for more detail). The government recognizes the issue, and is trying to improve the situation with the Presidential Fertilizer Initiative: a partnership agreement between the Fertilizer Producers and Suppliers of Nigeria (FEPSAN) and OCP, a state-owned Moroccan company and a world leader in phosphate and its derivatives. Under this agreement, OCP will supply discounted phosphate to Nigeria, helping to support domestic blending of blended Nitrogen, Phosphorous and Potassium (NPK) fertilizer, with the goal of achieving the local production of one million metric tons for the 2017 wet season farming, and an additional 500,000 metric tons for dry season farming. Before the signing of the agreement, only 10% of Nigeria's blending plant capacity was being used, meaning that most of Nigeria's multi-nutrient fertilizer was shipped into the country despite most inputs being available locally. A Special Purpose Vehicle (SPV) has been created to manage the financing, and this SPV pays suppliers directly, and supplies the raw materials to the blending plants, which it already has on contract.⁷² Blending plants then produce, bag, and sell the final product to registered agro-dealers, distributors, and state governments at NGN 5000 per bag, with profits returning to the SPV for reinvestment. There are no subsidies in the production chain. Indeed, previous fertilizer subsidies ended near the time the deal was signed, but the savings created by the Partnership design are intended to be passed on to farmers.⁷³

Everything You Need to Know about the Presidential Fertilizer Initiative (PFI), http://www.nta.ng/news/20170321-fertiliser-42428/, March 2017

FEPSAN website, http://fepsannigeria.com/index.php

LGA	LAND ACCESS RESTRICTIONS
	BORNO
Maiduguri/Jere	40% of land is available for agricultural activities There are restrictions on land beyond a 3km radius; and only short crops allowed
Biu	No land access restriction
Konduga	Land restrictions outside a 3km radius of the town. Only short crops are allowed
Kaga	Farming cannot be done beyond a 7 km radius of the town 40% of land is available for farming; only short crops are allowed
Damboa	Restrictions are not as tight; farming can only be done within a 10km radius of the town (Watch: security situation may not allow reconstruction at this time)
Gubio	There are no restrictions in Gubio. Privately owned storage is available
Monguno	Use of land outside administrative centre restricted
Kwaya-Kusar	No land access restrictions
Askira Uba	15km away from the town is unsafe Some parts of Uba are not safe enough for farming activities to take place
Chibok	15 km or more away from the town is not safe
	ADAMAWA
Yola North	Most of the land belongs to private individuals so there are no restrictions on land use
Yola South	Land is available; planting allowed within 10KM radius from the town
Jada	Land is open and available without any restrictions
Hong	All land is available in the LGA but people are afraid to go too far away to farm
Song	No restriction
Michika	No restriction
Ganye	10 km radius
Demsa	No restrictions but there are concerns about flooding in some areas
Mayo-Belwa	No land access restrictions
Mubi	No land access restrictions
	YOBE
Damaturu	No land access restrictions
Potiskum	No land access restrictions
Gujba	No land access restrictions
Gulani	No land access restrictions
Nangere	No land access restrictions
Yusufari	The only restrictions that exist are restrictions on how much land each person can get access to for farming to ensure everyone can get access
Yunusari	Over a 10km radius
Fune	2 km radius restriction
Tarmuwa	No land access restrictions
Geidam	No restrictions but some areas are still inaccessible
Nguru	No land access restrictions
Gashua	No land access restrictions
Custion	To faile decess resilicions

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