KEY MESSAGES

- According to mVAM findings, the food security situation in Adamawa, Borno and Yobe appears to have deteriorated between January and March.
- Displaced and poorer households have worse consumption and employ more frequently negative coping strategies than wealthier and host community households.
- The cost of maize, local rice and palm oil increased from January to March across all three monitored States due to reduced crop production in the past 3 years; increased transportation costs and continuous depreciation of the Nigerian Naira causing a rise in the price of food commodities.
- Increasing food prices and low casual wage rates in Yobe appear to be driving down households’ purchasing power, which may explain relatively higher use of negative food-based coping strategies reported by respondents in the state.
INTRODUCTION

The North-East (NE) part of Nigeria has been affected by over six years of Boko Haram insurgency, causing mass displacement of people within the country and across the borders to neighbouring countries, and severely disrupted livelihoods. According to the latest estimates, there just over 1.8 million internally displaced people (IDPs) by insurgency, who are mainly located in in Borno (1,427,999), Yobe (150,718) and Adamawa (134,415). The majority of IDPs (91%) are living with host community who are also facing difficulties to meet some basic needs. Security constraints in NE of Nigeria continue to limit the implementation of traditional face-to-face surveys, especially in Borno State. In order to monitor the impact of the conflict on food security, NEMA and WFP have opted to use remote data collection through mobile phones to collect basic food security and market data, in order to complement other ongoing assessments (see Box 1).

Box 1. Joint UN Multi-Sector Assessment in Borno and Yobe States

In April, at the request of the Government of Nigeria to support efforts to scale up assistance in NE Nigeria, a rapid joint interagency assessment was conducted in Borno and Yobe States. The assessment managed to reach IDPs and host communities in conflict-affected, low access areas in eastern and northern Borno (Bama, Damboa, Dikwa and Monguno) as well as Maiduguri, Jere and Konduga LGAs; and in Yobe (Damaturu, Geidam, Gujba, Gulani and Yunusari LGAs). mVAM was not able to collect in-depth data from some of these areas due to disrupted mobile networks.

According to the joint assessment, those areas are facing emergency food security conditions. In total 800,000 people are severely food insecure and require immediate food assistance in Borno and Yobe States. Over 550,000 people in Borno State are severely food insecure, including 180,000 in Maiduguri’s outskirts, 120,000 camp residents and approximately 250,000 IDPs in newly re-opened areas. In Yobe State, some 250,000 people are severely food insecure including 200,000 in rural areas and at least 55,000 IDPs and host populations in informal settlements in Damaturu.

RESULTS

Food security in Adamawa, Borno and Yobe deteriorated between January and March

The Food Consumption Score (FCS) measures the diversity of household diets, the frequently of food consumed and relative nutritional importance. The FCS classifies households as having ‘poor’, ‘borderline’ or ‘acceptable’ food consumption. Those with poor and borderline consumption are considered to be eating an inadequate diet and to be food insecure.

The food consumption results indicate that the food security situation of the surveyed households in Adamawa, Borno and Yobe deteriorated between January and March. In March, roughly 10 percent of all surveyed households were severely food insecure (poor FCS) while another 22 percent were moderately food insecure (borderline FCS), compared to about 8 percent severely and 17 percent moderately food insecure in January (Figure 1).

Figure 1: Food consumption of all surveyed households in January – March 2016

Source: NEMA/WFP mVAM Survey, January-March 2016

1 IOM, displacement tracking matrix (DTM), Round IX, April 2016.
Overall, surveyed households from Yobe reported the highest prevalence of inadequate (poor and borderline) food consumption during the reporting period (Figure 2). Higher food deficits in Yobe might be explained by the fact that the two local government areas (LGAs) - Gujba and Gulani that considered to be the food basket of the State are still impacted by the conflict with large number of displaced persons who are yet to return, limited access and continued disruption of trade.

Further analysis by LGA zones (see Table 1) shows more variation in the proportion of surveyed households with inadequate consumption (Figure 3). In March, inadequate consumption was highest among surveyed households from Damaturu and Potiskum in Yobe State, the Maiduguri and Jere urban area of Borno State, and those from LGA zones 1 and 2 in Adamawa State (Map 1).

**Figure 2: Share of surveyed households with inadequate food consumption in January – March 2016, by State**

![Figure 2](image)

Source: NEMA/WFP mVAM Survey, January-March 2016

**Figure 3. Share of surveyed households with inadequate food consumption in January – March 2016, by LGA zone**

![Figure 3](image)

Source: NEMA/WFP mVAM Survey, January-March 2016

**Table 1. LGA zone legend**

<table>
<thead>
<tr>
<th>LGA Zone Code</th>
<th>Zone Composition</th>
</tr>
</thead>
<tbody>
<tr>
<td>1A</td>
<td>Demsa-Gireri-Guyuk-Lamurde-Mayo-Belwa-Numan-Shelleng-Song-Maiha-Fufore-Jada-Ganaye-Toungo</td>
</tr>
<tr>
<td>2A</td>
<td>Gombi-Hong-Madagali-Michika-Mubi North-Mubi South</td>
</tr>
<tr>
<td>5A</td>
<td>Yola North-Yola South</td>
</tr>
<tr>
<td>1B</td>
<td>Askira/Uba-Bayo-Biu-Chibok-Hawul-Kwaya Kusar-Shani</td>
</tr>
<tr>
<td>5B</td>
<td>Jere-Maiduguri</td>
</tr>
<tr>
<td>1Y</td>
<td>Bade-Bursari-Fika-Fune-Jakusko-Karasuwa-Nangere-Nguru-Tarmua-Machinga-Yusufari</td>
</tr>
<tr>
<td>5Y</td>
<td>Damaturu</td>
</tr>
<tr>
<td>5Y2</td>
<td>Potiskum</td>
</tr>
</tbody>
</table>

Source: NEMA/WFP mVAM Survey, March 2016
There are differences in the consumption of animal protein, pulses, milk and fruits between the poor and the acceptable food consumption groups. The average diet of households with a poor food consumption consists primarily of cereals, vegetables and oil. These households consume almost no dairy, animal protein, fruits and pulses. Households with a borderline food consumption differentiated themselves by consuming pulses and fruits on average one day per week (Figure 4).

Figure 4: Food consumption groups by food items

The proportion of households with inadequate (poor and borderline) food consumption is higher among IDPs (including those living within and outside of camps) than host community residents, suggesting displaced persons are facing important food deficits. In March, 43 percent of surveyed IDPs had inadequate food consumption compared with 30 percent of resident households in Adamawa, Borno and Yobe states (Figure 5a).

Female-headed households seem more likely to be food insecure than male-headed households. A higher proportion of surveyed households with a woman head of household reported inadequate consumption than among male-headed surveyed households in February and March (Figure 5b).

Figure 5a. Share of surveyed households with inadequate consumption, by respondent status

Figure 5b. Share of surveyed households with inadequate consumption, by gender of household head

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In Nigeria, mVAM uses toilet type as a proxy for household wealth; households accessing own flush toilet are assumed to be the wealthiest, followed by shared flush toilet, cement pit latrine, dirt pit latrine and finally those utilising the bush. Survey findings indicate that households with unimproved sanitation facilities (cement pit latrine, dirt pit latrine and bush) are considerably worse-off in terms of consumption than those with improved facilities (own and shared flush toilets). In March, nearly 40 percent of households with unimproved sanitation facilities reported below-acceptable food consumption, compared to 20 percent of respondent households with improved facilities (Figure 6).

Displaced and poorer households use more frequently negative coping strategies

The reduced coping strategy index (rCSI) is a proxy indicator for household food security. A high rCSI means that households are using more severe coping strategies more frequently to cope with lack of food or enough money to buy food.

As shown in Figure 7, mVAM results suggest that negative food-related coping increased among surveyed households in Adamawa, Borno and Yobe between January and March. Households in Yobe are employing more frequently negative coping strategies that include the consumption of less preferred foods, reducing portion sizes or number of meals eaten in a day and borrowing food from friends/family. In March, respondents from Yobe reported an average rCSI of 15; while households also modified their food habits to cope with food deficits in Borno (rCSI=13.3) and in Yobe (rCSI=12.3). Analysis of data disaggregated by LGA zones confirms this trend for all three LGA zones in Yobe State (Figure 8).

Figure 6. Food consumption of respondents in March, by toilet type

<table>
<thead>
<tr>
<th>Unimproved sanitation facilities</th>
<th>Improved sanitation facilities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Poor</td>
<td>Total</td>
</tr>
<tr>
<td>15%</td>
<td>60%</td>
</tr>
<tr>
<td>14%</td>
<td>80%</td>
</tr>
</tbody>
</table>

NEMA/WFP mVAM survey, March 2016

Map 2. Average rCSI in March, by LGA zone

Source: NEMA/WFP mVAM Survey, January-March 2016

3 FEWS NET Nigeria Food Security Outlook Update, April 2016.
Data indicates that displaced households and households headed by women are using more frequently negative coping strategies to cope with food shortages than host community (resident) households and households with a male head (Figures 9a and 9b). Also households with unimproved sanitation facilities are utilizing more severe coping strategies than households with improved facilities, indicating that the respondents who are worse-off are more vulnerable to food insecurity than wealthier households (Figure 9c).

\(^2\)WFP adopts the definition from UNICEF and WHO to classify a toilet type as improved or unimproved sanitation facility.
Increasing food prices are decreasing household purchasing power and food access in Yobe

The cost of maize, local rice and palm oil increased from January to March across all three monitored States. This trend was also noted by FEWS NET\(^3\), and is attributed to a combination of factors: decreased harvests in 2015/16 resulting in a slight reduction in local cereal supplies; a scarcity of fuel, increased transportation costs and continuous depreciation of the Nigerian Naira causing a rise in the price of imported food items; and an intensification in Nigerian households substituting towards local cereals, which is further increasing demand and driving substantial price increases for local maize and rice.

In Nigeria, local rice is more expensive than maize, which the findings of this survey have corroborated. There is a significant difference by state for prices of maize and local rice, and reported prices for both commodities were lowest in Adamawa and highest in Yobe state. Prices for palm-oil are similar across the three states (Figure 10).

**Figure 10: Commodity Prices in Naira by State, January – March 2016**

<table>
<thead>
<tr>
<th>State</th>
<th>ToT Maize</th>
<th>ToT local rice</th>
<th>ToT palm oil</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adamawa</td>
<td>5.2</td>
<td>2.9</td>
<td>4.9</td>
</tr>
<tr>
<td>Borno</td>
<td>4.3</td>
<td>2.9</td>
<td>4.9</td>
</tr>
<tr>
<td>Yobe</td>
<td>3.8</td>
<td>2</td>
<td>4.9</td>
</tr>
</tbody>
</table>

Table 2: Manual Labour Wages and Terms of Trade (ToT) by State, March 2016

Source: NEMA/WFP mVAM Survey, March 2016

There is a significant difference in reported daily manual labour wages by State; mVAM findings suggest that average casual wage rates are higher in Adamawa and Borno than in Yobe (Figure 11). Results also indicate significant difference in the daily wage for manual labour paid to displaced persons compared to non-displaced; in March, the average daily rate reported by IDP respondents was 871 Naira while for non-displaced respondents it was 977 Naira.

Terms of trade analysis shows that higher food prices and lower wages imply lower purchasing power for people in Yobe state. For instance, in March, while surveyed households in Adamawa were able to buy more than 5 cups of maize with a day’s wage, people in Yobe were only able to buy 3.8 cups. The same is true for local rice: a day’s wage is worth 2 cups in Yobe, and almost 3 cups in Borno and in Adamawa (Table 2).

**Figure 11: Average Manual Labour Wages by State, January – March 2016**

Source: NEMA/WFP mVAM Survey, January-March 2016

\(^3\) FEWS NET Nigeria Food Security Outlook Update, April 2016.
Perceptions of food security

At the end of live-call survey, every respondent was given the opportunity to share a comment through an open-ended question that read: “please tell us about the food situation in your community”. Approximately 67 percent (n=3,018) of respondents provided feedback which is captured in word cloud of all responses. The word clouds illustrate the terms most commonly found in responses, and the size of the words represents their frequency.

Many respondents reported insufficient availability of food in their communities, and over a quarter of surveyed households noted that while food is available - it is difficult to access it due to lack of economic capacity to purchase food commodities and higher food prices. Respondents emphasized that the insurgency is the main cause of the difficulties faced by household to access food and production in these three states (Figure 12a). Responses from female respondents were analysed separately (Figure 12b), and seem to reflect similar issues, with a slightly higher emphasis on the ‘suffering’ faced within their community (see ‘in the words of the respondents’).

In the words of the respondents:

- ‘People are suffering because money is not in circulation so people cannot afford to buy food, the majority of the people here rely on begging as a means of feeding their families’ - Displaced female respondent residing within a host community within Maiduguri, Borno in January.
- ‘Due to the insurgency, farmers were not able to farm, which makes the food supply to be insufficient in the community’ - Resident male respondent from Damaturu, Yobe in March.
- ‘People are really staving’ - Woman head of displaced household residing in an IDP camp within Hong, Adamawa in March.
- ‘Foods are too expensive and people are suffering’ - Male respondent resident in Jere, Borno in March.
- ‘Foods are available but there is no money to buy it and no work’ - Female resident respondent from Gombi, Adamawa in March.
- ‘The food situation here is not favourable, most people depend on farming. Most people are not farming now because of the insurgency that happened’ - Displaced male respondent from Mubi North, Adamawa surveyed in February.
- ‘There are not many vegetables available in the community because the area is deserted, and the ones that are brought in from the neighbouring states are very expensive’ - Resident male respondent from Potiskum, Yobe surveyed in March.
- ‘Food is very expensive in my community’ - Displaced male residing in an IDP camp in Bama, Borno in surveyed in March.
The methodology used for this survey is informed by WFP’s mobile Vulnerability Analysis and Mapping (mVAM) initiative, which involved using mobile surveys for food security monitoring.

The live telephone survey were conducted from a call centre located in Lagos. Calls targeted mobile subscribers in North-East and used random-digit dialling. Data presented here was collected from a total sample of 4,500 respondents from Adamawa, Borno and Yobe States between January and March 2016. Approximately 8 percent of respondents are internally displaced persons, 5 percent returnees and 87 percent local residents of the three NE states. Map 1 shows coverage of unique observations and number of complete calls obtained during the reporting period.

When interpreting the data below, readers are cautioned to note that mobile phone surveys skew towards better-off households in urban areas. According to the World Bank, there are 78 cellular subscriptions per 100 people in Nigeria (2014). While the rate of cell phone usage is rapidly increasing in Nigeria, a segment of the population does not own a mobile phone and thus has not been reached by the survey. Remote data collection will not replace the need for face-to-face assessments, particularly those used for targeting and response design.

The questionnaire included household indicators, demographic information (including disaggregated gender, age, and displacement status), food consumption, coping strategies and market data, in addition to an open-ended question. The questionnaire was administered in English and Hausa although enumerators speaking all the vernaculars language of the NE were available. Additional information on methodology is available online.

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mVAM RESOURCES:

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Toolkit: http://resources.vam.wfp.org/mVAM