Emergency Food Security Assessment (EFSA) in Borno, Yobe and Adamawa States

Nigeria

December 2017
Data collected between September and October, 2017

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Food and Agriculture Organization of the United Nations

Emergency Food Security Assessment in Three North Eastern States (Borno, Yobe and Adamawa) of Nigeria

Data collected in September/October 2017
Report in December 2017

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Acknowledgements

List of Acronyms

ACF	Action Contre La Faim /Action Against Hunger
BYA	Borno, Yobe and Adamawa
CAPI	Computer Assisted Personal Interviewing
CH	Cadre Harmonisé
CILSS	Permanent Interstate Committee for Drought Control in the Sahel
DTM	Displacement Tracking Matrix
EA	Enumeration Areas
ECHO	European Commission's Humanitarian Aid Organization
ECOWAS	Economic Community of West African States
EFSA	Emergency Food Security Assessment
FAO	Food and Agriculture Organization of the United Nations
FCS	Food Consumption Score
FEWS NET	Famine Early Warning System Network
FMARD	Federal Ministry of Agriculture and Rural Development
HH	Household
HHS	Household Hunger Scale
IDPs	Internally Displaced Persons
IOM	International Office on Migration
IPC	International Phase Classification
JANFSA	Joint Approach for Nutrition and Food Security Assessment
LCSI	Livelihood Based Coping Strategy Index
LGA	Local Government Area
mVAM	Mobile Vulnerability Analysis and Mapping
NBS	National Bureau of Statistics
NSAG	None State Armed Groups
OXFAM	Oxford Committee for Famine Relief
rCSI	Reduced Coping Strategy Index
NPFS	National Programme for Food Security
INGOs	International Non-Governmental Organisation
NAERLS	National Agricultural Extension and Research Liaison Services
NGOs	Non-Governmental Organisations
VAM	Vulnerability Analysis and Mapping
WASH	Water Sanitation and Hygiene
WFP	World Food Programme
WHO	World Health Organization

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Executive summary

The ongoing hostilities in north eastern Nigeria have unleashed a multitude of consequences on the affected population including widespread loss of life, massive population displacement, loss of livelihoods and diminished agricultural production as well as the destruction of housing, communication and market infrastructure. An in-depth Emergency Food Security Assessment was conducted by WFP and other partners between the 27th of September to the 18th of October 2017 to update the food security situation in the worst affected areas of Borno, Yobe and Adamawa States and to provide evidence-based food security information to support the October Cadre harmonise analysis. The objectives of the survey were to evaluate the food security situation of displaced and host communities, describe the profile, location and characteristics of food insecure households as well as the underlying causes of food insecurity and provide recommendations for the targeting of households most in need of assistance.

What proportion of households are food insecure?

Overall, 34.3 percent of households across Borno, Yobe and Adamawa States are food insecure. This represents 10.3 percent reduction in the prevalence of food insecurity compared to the last assessment in March 2017.

Where do food insecure households live?

 A greater proportion of food insecure households are in Borno State (45.6 percent) as compared to Yobe (36.4 percent) and Adamawa (20.5 percent) States. At the LGA level, food insecurity is highest among households in Fune (80.6 percent) in Yobe State and Damboa (78.9 percent) in Borno State. Nine additional LGAs in northern and central areas in Borno State (Ngala, Bama, Konduga, Kaga, Magumeri, Nganzai, Dikwa, Mafa and Mobbar) and three LGAs in Yobe State (Fune, Fika and Gujba) have food insecurity prevalence of at least 50 percent.

Who are the food insecure households?

Displaced households in camps (54.9 percent), informal settlement (51.9 percent), and host communities (49.6 percent) have higher prevalence of food insecurity than permanently resident communities. Moreover, there is a higher prevalence of severe food insecurity among displaced households in camps (10.6 percent), host communities (8.4 percent) and informal settlements (9.4 percent) as compared to returnees (7.5 percent) and permanent residents (3.8 percent). However, the prevalence of food insecurity among displaced households has reduced by 16.0 percent and 14.7 percent among IDP households living in camps and host communities respectively, indicating some measure of improvement in the food security situation.

Female headed households are disproportionately affected by food insecurity (44.3 percent) compared to their male headed counterparts (33.0 percent). Similarly, there are more severely food insecure female headed households (6.6 percent) compared to their male counterparts (4.4 percent), which is unsurprising since women in the northeast have limited livelihood opportunities compared to men. Majority of female headed households are either widowed (60.8 percent) or separated/divorced (12.5 percent). The prevalence of food insecurity among female headed households dropped by 10.7 percent in Borno (7.1 percent), Yobe (6 percent) and Adamawa (20.9 percent) States as compared to the last assessment in March 2017.

Households relying on begging: Food insecurity is highest among households adopting begging as their main livelihood activity (56.9 percent), followed by those who live primarily on gathering and sale of natural resources and wild food (43.5 percent) as well as daily labourers (39.6 percent). In contrast, households engaged in salaried work and wage labour (84.4 percent) and commerce (74.9 percent) are more food secure.

Households with uneducated heads: Households headed by an individual with no previous education (cannot read and write in any language) were found to have the highest rate of food insecurity (39.5 percent).

Livelihood zones dominated by millet, cowpea and sesame have the highest prevalence of severe and moderately food insecure households. It is important to highlight that this zone contains LGAs in the

central areas of Borno and Yobe States, most of which are disproportionately affected by the ongoing hostilities in the northeast.

Poor households with few assets tend to be more food insecure than better off household. In the face of shock and threats, households with lower levels of income and fewer assets are more likely to deploy extreme coping strategies to meet their basic food needs. If the use of such coping strategies persist, it tends to have severe and oftentimes irreversible impacts on the level of food security within the affected households.

Why are they food insecure?

Displacement of population from their home of origin: Displacement, loss of a family member or key bread winners have a negative impact on food security at the household level. Displaced population are more vulnerable to food insecurity as it results in the loss of livelihood as well as social and natural assets. IDPs are forced to rely on severe coping mechanism in order to ensure that their basic food needs are met. Displacement primarily limits access to basic livelihood opportunities such as land and skilled employment and this is often compounded by lack of skills and low level of literacy, which limits the capacity of IDPs to connect with local opportunities within areas of new habitation, consequently forcing them to engage in jobs that require less level of skills such as land clearing and manual labour.

Lack of access to land for farming: Households that do not have access to land to undertake agriculture land are more food insecure (40 percent) compared to those with access (28 percent). This implies that accessibility to land for farming remains a key determinant of food insecurity in the northeast. Moreover, a correlation exists between food security and the size of land cultivated and households that cultivate more hectares of land are found to be more food secure.

Shocks: The EFSA results showed that food insecurity was higher among households that had experienced a shock (37 percent) compared to those that had not experienced any shock (30 percent). Severe and moderate food insecurity is higher among household that reported insecurity (47 percent), temporary displacement (46 percent), loss of employment (45 percent), restricted market access (43 percent) and crop failure (40 percent).

What can be done to assist food insecure households?

Despite the apparent decrease in the proportion of food insecure households in both Borno and Adamawa States between March and October 2017, the situation of displaced households, returnees and host communities who have lost their livelihoods remain critical and the following recommendations are proposed:

- The Government of Nigeria and the humanitarian community need to sustain the ongoing assistance in order to prevent the deterioration of the food security situation particularly across households that are vulnerable and most in need.

- It is essential that the humanitarian community prioritizes food assistance for LGAs with critical levels of food insecurity and provide food and livelihood support during the lean season when household food security situation is expected to deteriorate further.

- Specific vulnerable groups such as female-headed households, displaced households, poorest households, those with limited livelihood opportunities and land access and households involved in casual labour, should be targeted and prioritized for assistance.

- In LGAs that have high level of food insecurity, WFP and the humanitarian community should provide nutrition support through supplementary and therapeutic feeding centres to reduce the risk of malnutrition among children age 6 to 23 months.

- Finally, regular monitoring of the food and nutrition situation in hard-to reach areas of the north east should be sustained through the scale-up of remote monitoring systems, complemented with in-person interviews by Third Party Monitors.

1.0 CONTEXT AND JUSTIFICATION

The impact of the conflict in north eastern Nigeria has resulted in far reaching consequences on the lives and livelihoods of the affected population. The staggering loss of lives due to persistent suicide bomb attacks against civilians in displaced people's camps and markets, the severe protection concerns, the substantial decimation of agricultural production, the massive displacement of communities into other locations and the precarious living conditions of the affected people reflects the catastrophic and unpredictable nature of the ongoing hostilities and its humanitarian consequences.

According to the Armed Conflict Location & Event Data Project, there was a total of 39 suicide bomb attacks in Borno and Adamawa States from January to the 7th of November 2017, resulting in 249 deaths. Of the total number of deaths, 222 fatalities were recorded in Borno State alone while 18 were recorded in Adamawa State, mainly in Madagali LGA[1].

The fragile security environment in large swathes of Borno State continues to restrict movement and disrupts access to basic services as well as the functioning of local markets. As of October 2017, some 1,571,723 people remained displaced in Borno, Yobe and Adamawa States (BYA), but this represents a decrease of 47,939 (or three percent) from the 1,619,662 people reported in the Round 18 (**Table 1**). This decrease is consistent with the decreasing trends observed during the rounds of 17th and 16th, which is driven mainly by the movement of people returning to their places of origin and in search of better livelihood opportunities. Borno State remains the epicentre of displacement, with 77 percent of the total displaced people in the north east hosted by the state. While Maiduguri Metropolitan Council host the largest number of IDPs, their number decreased by 11 percent or 33,064 people from 308,784 in August to 275,720 in October as these individuals moved to Damboa, Dikwa, Gwoza, Kala/Balge, Kukawa, Mafa, Mobbar, Monguno and Ngala LGAs. Fifty-four (54) percent of IDPs are female and food remains the most immediate need for 68 percent of all displaced persons.

Table 1 Total Number of Displaced Individuals across Borno, Yobe and Adamawa States, September and October 2017.

State	October 2017	September 2017
Borno State	1,326,445	1,373,564
Yobe State	104,922	106,736
Adamawa State	140,356	139,362
Total	**1,571,723**	**1,619,662**

Source: IOM's Displacement Tracking Matrix, Rounds 18 & 19

Since April 2017, the unexpected upsurge in the number of refugees returning from Cameroon, Niger and Chad brought additional pressure on the already overstretched camps in the border towns of Banki, Gamboru, Ngala, Damasak and Pulka. Of the 35,000 Nigerian nationals who returned to Banki (Bama LGA) from Cameroon between January and July 2017, more than 13 percent were relocated to Pulka in Gwoza LGA. Most of returnees have had to endure precarious conditions characterized by overcrowded camps with limited access to potable water, latrines and other shelter facilities.

The outbreak of cholera in Borno State in August further compounded the humanitarian situation of displaced people and host communities in the north east. As of the 5th of November 2017, the total number of suspected cases of cholera stood at 5,311 and 61 deaths, with 2,664 of the cases occurring at the Muna corridor while 736 cases were in Dikwa, 175 cases in Monguno, 58 cases in MMC and 20 in Mafa. Malaria has become endemic in the north east, increasing the risk in child mortality among malnourished children.

Despite the sustained high incidents of ambushes and attacks along major access roads, coupled with the ongoing military operations in some Local Government Areas (LGAs) which have hampered access to hard-to-reach areas, humanitarian partners have significantly scaled-up their responses to meet the urgent food and non-food needs of the affected population. By the end of June 2017, there were 71 humanitarian partners (both government and Non-governmental) delivering assistance in Borno, Yobe and Adamawa States with some of these partners working in one or more states.

The Food Security sector (FSS) reached 3.3 million individuals with food assistance in the form of in-kind and cash modalities between January and June 2017. To support the recovery and restoration of livelihoods, the FSS also assisted about 378,604 individuals, representing 25 percent of the target for 2017. Among individuals with severe acute malnutrition (SAM), about 80 percent of those admitted and discharged had recovered, meeting the target of more than 75 per cent.

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[1] ACLED Data, November 2017. https://www.acleddata.com/data/

The impact of food assistance is reflected in the food security outcome monitoring assessment conducted by WFP which found that food security conditions of households who received assistance during the lean season has improved in the three north eastern states with the majority of households (82 percent in Borno, 90 percent in Yobe and 95 percent in Adamawa States) attaining borderline or acceptable food consumption in the northeast. The improved food security trends are further bolstered by the encouraging reports of slightly improved agricultural yields due to favourable agro-meteorological conditions and access to improved seeds and fertilizer which could improve households' access to own-produced food.

1.1 Economic Condition in Nigeria

In August, the IMF issued a forecast indicating that the Nigeria economy which continued to witness significant revenue shortfalls and high rate of unemployment will grow at the rate of 0.8 percent in 2017. During the second quarter of 2017, the economy grew by 0.5 percent year-on-year after five successive quarters of declining growth. The positive growth benefited from strong growth of 1.6 percent year-on-year in the oil sector and strengthening manufacturing sector. While the agricultural sector recorded a growth of 3 percent year-on-year, the pace of growth was assessed to be slow and driven largely by weaker output in livestock and fishing sub-sectors[2].

Despite the easing inflation, the Food Index increased to 20.28 percent (year-on-year) in July and to 20.31 in September and 20.30 in October from 19.91 percent in June 2017, marking the highest year-on-year increase inflation since 2009[3]. Increases in the prices of bread and cereals, meat, fish, oils and fat, coffee, tea and cocoa as well as potato, yam and other tubers contributed the rise in the index. The combined effect of these unfavourable macro-economic conditions and the volatile security environment in the northeast constrained the growth of income-earning opportunities and the purchasing power of poor and vulnerable households.

1.2 Food Availability

Food availability across Nigeria has improved due to the ongoing harvest of staples which has enabled most households to rely on own-produced staples to meet their food consumption needs. A combination of these factors have led to mixed crop production outcomes across the country in 2017, with outputs for maize, millet and rice appreciating by 15.47, 4.58 and 36.52 percent respectively in 2017 while the output for sorghum decreased slightly by 2.53 percent (**Table 2**). These factors include the destabilizing impact of Boko Haram violence on farmers, the farmer-herder conflicts in states within the north central zone, communal clashes arising from land disputes across the country, the impact of floods in central and south-eastern states during the 2017 season and finally, the high incidence of pest and livestock diseases in the central states. Consequently, the estimated output of maize, sorghum and millet deceased by 8.60, 16.26 and 12.26 percent respectively while that of rice appreciated by 6.29 percentages[4].

Table 2 Production Estimates for Cereals in Nigeria

Crop	2016	2017	5-year average (2012 -2016)	Percent change between 2016 and 2017	Percent change between 5-year average and 2017
Maize	9,598.36	11,082.96	12,126.162	15.47	-8.60
Sorghum	6,461.23	6,298.15	7,521.490	-2.53	-16.26
Millet	1,444.24	1,510.39	1,721.741	4.58	-12.26
Rice	5,897.21	8,050.88	7,574.413	36.52	6.29

Sources: NAERLS survey, 2017

The improving availability of food from the current harvest is reflected in the decreasing prices of staple food prices across the north east. In the north eastern markets of Maiduguri, the prices of key staples have decreased significantly in comparison with the previous year. The price of maize flour in Monday market has declined by 51 percent while the price of red beans decreased by 15 percent in October 2017 when compared to the same period in 2016. Similarly, the price of maize flour and local rice is down by 34.8 percent and 11.3 percent respectively as compared to the previous year[5].

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[2] PWC, Nigeria's Q2'17 GDP: from recession to recovery in Nigeria Economic Alert, September 7, 2017
[3] NBS, Consumer Price Index, October 2017
[4] Joint CILSS/FEWSNET/FAO/WFP JRC/EU 2017/2018 pre-harvest assessment mission in Nigeria, draft report
[5] WFP monthly market monitoring

According to the NAERLS survey, production of sorghum declined by nine percent in Borno State and by three percent in Adamawa State as compared to last year, and remained well-below average and the pre-conflict period. Widespread incidents of crop pests and diseases in Damaturu, Jakusko, Geidam, and Yunusari Local Government Areas (LGAs) of Yobe State resulted in an estimated 25-30 percent of the cultivated millet, sorghum, cowpea, and groundnut crops being destroyed at various growth stages by army worms and locusts[6].

1.3 Justification

Based on the seasonal planting cycle in the northeast, August 2017 marked the expiration of the lean season, a period characterised by limited food stock within households (**Figure 1**). Harvest commenced in September 2017 and is slightly beginning to have an impact on food prices due to the improved availability of food stock in markets across the northeast.

Figure 1 Seasonal Calendar in Northern Nigeria
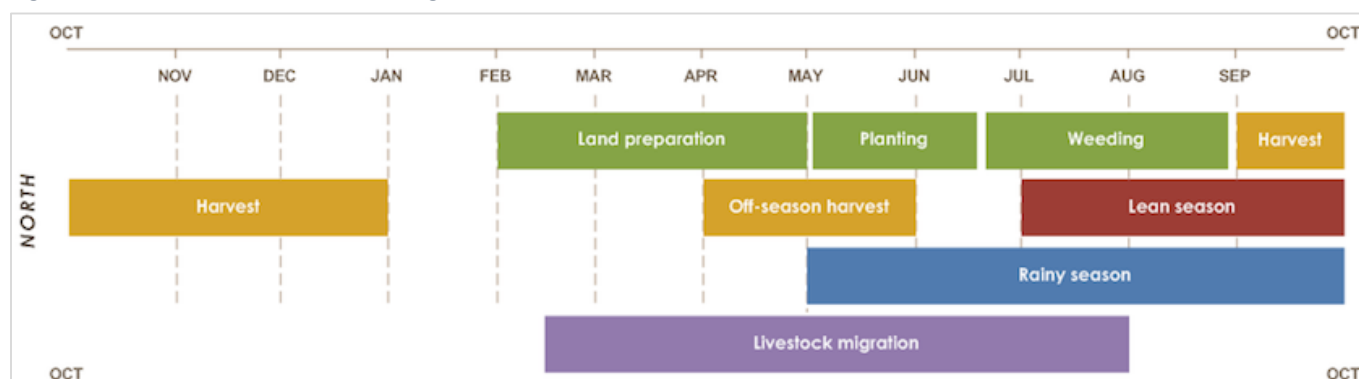
Source: FEWS NET

In order to update the food security situation in the worst affected areas of Borno, Yobe and Adamawa States to provide evidence-based food security information to support the October 2017 Cadre harmonise analysis and the targeting of beneficiaries at LGA level, an in-depth emergency food security and nutrition assessment (EFSA) was conducted between the 27th of September to the 18th of October 2017.

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[6] FEWSNET, Nigeria Food Security Outlook, October 2017 to May 2018

2.0 OBJECTIVES AND METHODOLOGY
2.1 Objectives

The main goal of this EFSA was to gain insights into the level of household food insecurity in the bid to target and support the most vulnerable and food insecure households across Borno, Yobe and Adamawa States.

The specific objectives of the assessment were to:

i) Assess the food security of IDPs and host populations in the Borno, Yobe and Adamawa States;
ii) Describe the profile, location and socio-economic characteristics of food insecure households;
iii) Define the underlying causes of food insecurity;
iv) Provide recommendations for the targeting of severely food insecure household; and
v) Collect Household level outcomes (food security) required for the November 2017 Cadre Harmonise (CH) analysis in the three states of Borno, Yobe and Adamawa.

2.2 Methodology

The survey covered the three states of Borno, Yobe and Adamawa which are worst affected by the ongoing hostilities in the northeast. Across these states, the sample was representative at LGA level. Based on the severity of the armed conflict, 3 LGAs were deemed to be completely inaccessible, 11 were partially accessible and 51 were complete accessible (**Table *3***). The 3 inaccessible LGAs were not covered during the data collection whereas a supplementary data collection activity was undertaken in November 2017 within Kala Balge (Rann) in Borno State. In all, 62 out of 65 LGAs were covered during this round of EFSA.

Table 3 Number of LGAs Accessible per State

	# of Accessible	# of partially accessible	# of Inaccessible
Adamawa State	19	2	0
Borno State	16	8	3
Yobe State	14	3	0
Total	**49**	**13**	**3**

Administratively, Nigeria is divided into states and each state is sub-divided into Local Government Areas (LGAs) with each LGA divided into wards. In addition to these administrative units, each locality is subdivided into census Enumeration Areas (EAs) which are based on demarcation of the 2006 population census.

The sample was selected using a two-stage cluster design. The first stage was the selection of EAs from each of the 62 accessible strata (LGA) based on probability proportional to size while at the second stage, households were randomly selected within each EA. The estimated population figures for each EA are projections based on the 2006 census data as calculated by National Population Council.

The National Bureau for Statistics (NBS) LGA frame which contains 30 EAs per LGA was used as the sampling frame. For Borno State, the sampling frame took into consideration population movement. IDPs camps location and population from the Round 16 of the International Organization on Migration (IOM) Displacement Tracking Matrix (DTM) were considered in the sampling frame. Households were systematically sampled after a quick listing of all households within each EA. A total of 20 EAs were studied per LGA and ten (10) households were studied in each of the selected EAs. For LGAs with a large IDP population size (MMC, Damaturu, Jere, Konduga), all 30 EAs within such LGAs were covered.

2.2.1 Training

Training for the assessment was conducted at two levels. The first was a 3-day training of trainers (TOT) at the national level for trainers from the National Bureau of Statistics (NBS), National Program for Food Security (NPFS) and other humanitarian partners. Secondly, a 5-day state level training was conducted for enumerators from NBS, NPFS and other partner organizations involved in data collection during the course of the assessment. During these trainings which took place in the capital cities of Borno (Maiduguri), Yobe (Damaturu) and Adamawa (Yola), participants were exposed to the objectives of the EFSA, the different components of the EFSA questionnaire, usage of the Computer Assisted Personal Interviewing (CAPI) based questionnaire and indicators of food security.

2.2.2 Data Collection

A team of five trained enumerators (4 enumerators and 1 supervisor) collected data from households in each of the covered LGAs over a period of 22 days. After completion of the work at the end of each day, the supervisor for each of team uploaded the data from the CAPI devices to a central database managed by WFP. The WFP assessment team analysed the uploaded data on a daily basis to for completeness and data quality issues and provided feedback to supervisors for onward sharing with enumerators. The entire field exercise was supervised by representatives of the NBS at the national, zonal and state levels, NPFS, WFP, FAO, FEWS NET and other non-governmental organizations (NGOs).

2.2.3 Partnership and coordination

The EFSA followed a participatory and consultative approach involving Government agencies, UN agencies, donors, NGOs, FEWS NET and community representatives in order to encourage productive partnerships (i.e. for data collection, analysis, reporting), build synergies, avoid duplication of assessment and maximize the use of resources. The development of survey tools (open-ended or closed-end questionnaires), identification of participants (key informants, focus groups, and households) and determination of sampling frame was carried out in consultation with local experts under the leadership of the NBS. Partners involved in the process contributed in various ways including the allocation of staff time and provision of technical inputs. Also, the assigned staff benefited from trainings on existing food security assessment guidelines and newly developed data collection methods using smartphones.

2.2.4 Coverage

In all, a total of 19,634 households were interviewed by enumerators in Borno (7,297), Yobe (5,531) and Adamawa (6,760) States. This round of EFSA was able to achieve broader geographic scope due to the robust sample size and prolific synergy between diverse stakeholders (**Figure 2**).

2.2.5 Limitations

A Joint Approach for Nutrition and Food Security Assessment (JANFSA) was originally planned which would have given a holistic and in-depth insight not only into the food security, but also the nutrition situation across BYA. However, the nutrition component of the assessment was excluded due to time constraints and hence, only food security indicators were covered in the EFSA.

Figure 2 EFSA Coverage Map, September /October 2017

Figure 2 EFSA Coverage Map, September /October 2017

NOTE: Data collection in Rann, Kala Balge LGA was conducted in December 2017

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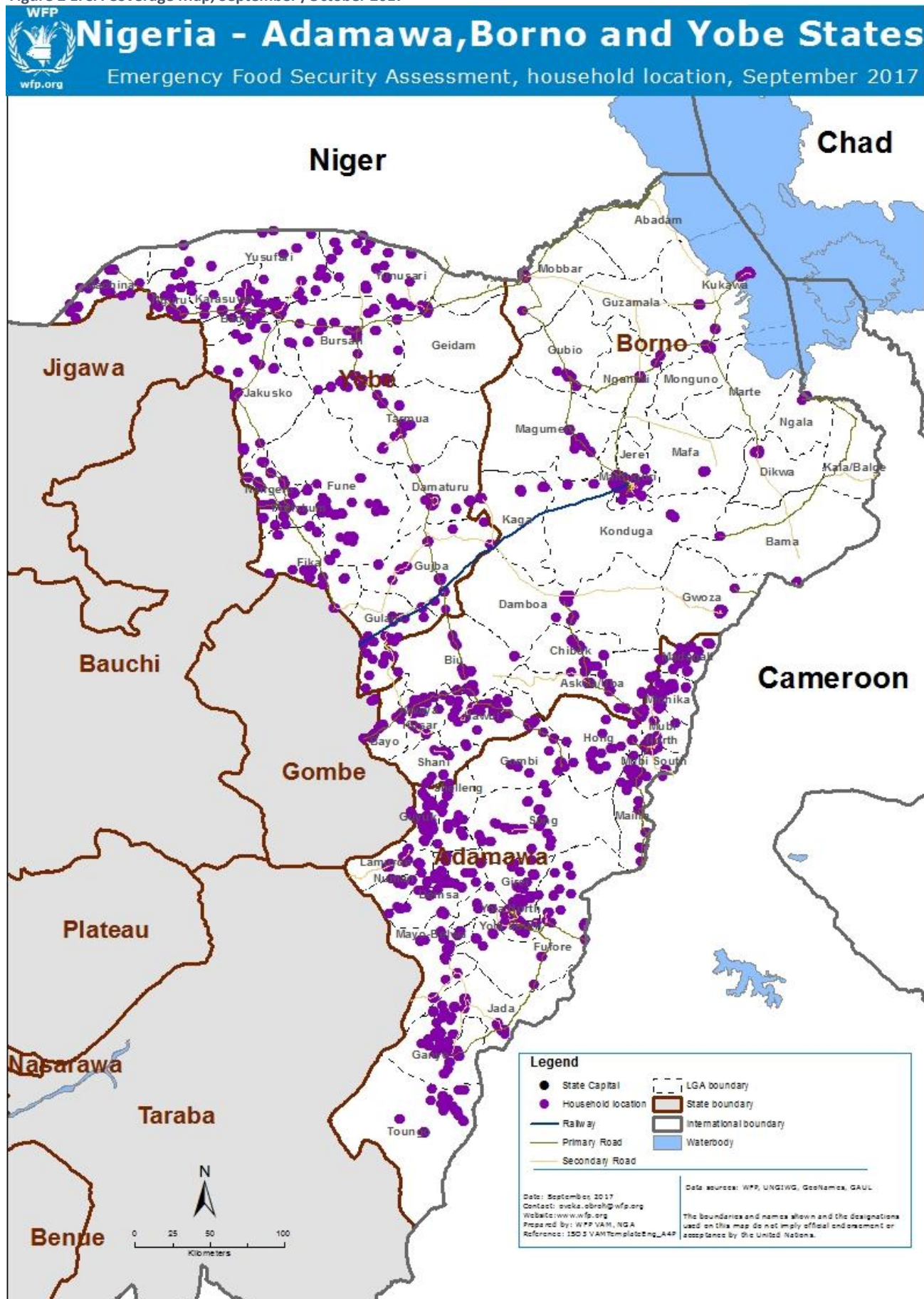
3.0 GENERAL HOUSEHOLD INFORMATION

3.1 Household Statistics

3.1.1 Gender of Head of Household

Overall, 11.8 percent of the households surveyed are female headed with Borno State having the highest proportion (16.1 percent) of such households compared to Adamawa (11.0 percent) and Yobe (7.2 percent) States. Majority of female headed households are either widowed (60.8 percent) or separated/divorced (12.5 percent) and this trend is consistent across BYA states. At the LGA level, the highest proportion of female headed households are found in Bama (59.2 percent), Gwoza (33.3 percent), Kaga (24.6 percent), Mobbar (21.9 percent) and Mafa (21.3 percent) in Borno State, Nguru (16.1 percent) and Potiskum (11.5 percent) in Yobe State, and Madagali (27.4 percent), Michika (24.9 percent), Yola North (19.1 percent) and Demsa (19.0 percent) in Adamawa State. Conversely, the lowest proportion of female headed households are found in Kwaya Kusar (4.3 percent), Bayo (5.7 percent), Nganzai (6.3 percent) and Askira Uba (7.3 percent) in Borno State, Fune (1.9 percent), Karasuwa (2.7 percent), Nangere (2.9 percent) and Yusufari (3.0 percent) in Yobe State and Jada (0.3 percent), Ganye (3.0 percent), Song (3.5 percent) and Fufore (3.6 percent) in Adamawa State. This high proportion of female-headed households, particularly widowed women in several LGAs is attributable to the systematic targeting of men by Non-State Armed Groups (NSAG) in the ongoing hostilities.

3.1.2 Age of Head of Household

The average age of the head of households across BYA is 45.4 years with no significant difference between Borno (44.8 years), Yobe (44.2 years) and Adamawa (46.8 years) States (*Figure 3*). At the LGA level, the average age of the head of households is highest in Kukawa (51.4 years), Numan (51.2 years) and Ngala (51.0 years) and lowest in Bama, Nganzai and Fune with an average age of 40.8 years, 39.6 years and 39.4 years respectively. There is a slight difference between the average age of female headed households (46.3 percent) compared to their male headed counterparts (45.0 percent). This difference in average age is more pronounced in Yobe State and Adamawa State as compared to Borno State (*Figure 4*).

Figure 3 Average Age of Household's Head by State (Years)
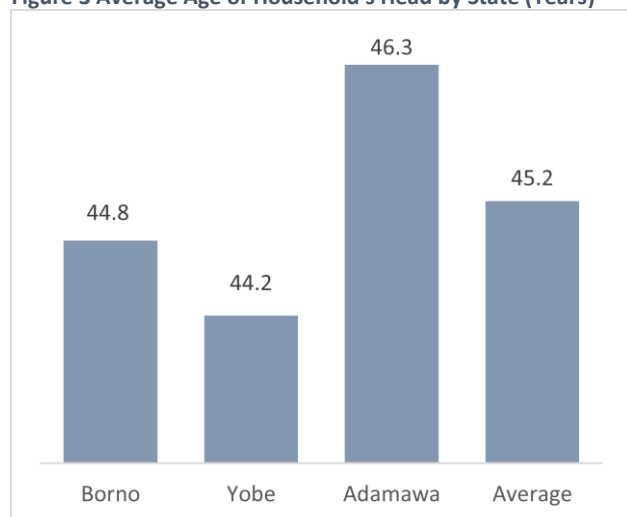
Figure 4 Average Age of Household's Head by Sex (Years)
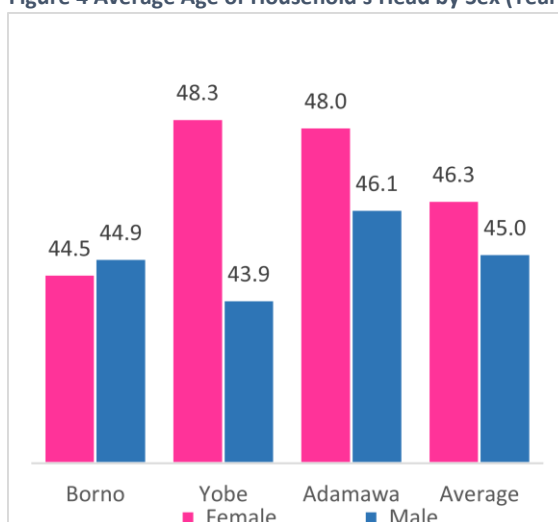
3.1.3 Literacy Level of Head of Household

The literacy level among the households surveyed in BYA stands at 63.9 percent with the highest proportion of literate household heads found in Adamawa (71.5 percent), followed by Yobe (64.2 percent) and lastly, Borno (56.7 percent) (**Figure 6**). At the LGA level, Damboa (27.5 percent), Dikwa (34.8 percent), Gwoza (39.0 percent) and Shani (40.0 percent) in Borno State along with Yusufari (27.0 percent) and Yunusari (38.2 percent) in Yobe State have the lowest level of literacy among household heads. The low level of literacy in these LGAs remains worrisome since literacy is a key determinant of earnings, health, education of children and social status. Moreover, literacy is found to have a gender dimension as a lower proportion of female headed households (36.9 percent) are literate compared to their male headed counterparts (67.5 percent), a trend that is consistent across BYA (*Figure 5*).

Figure 6 Literacy Level by State (Percentage)
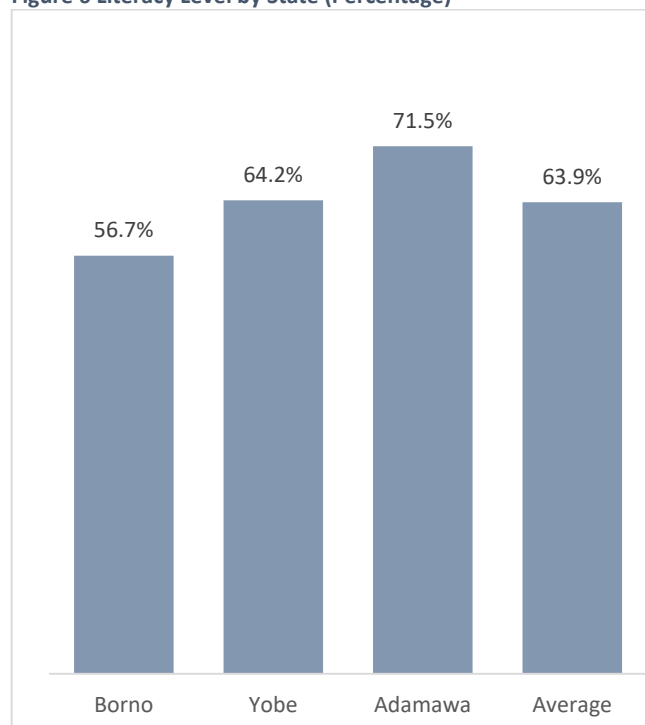
Figure 5 Literacy Level by Sex of Head of Household
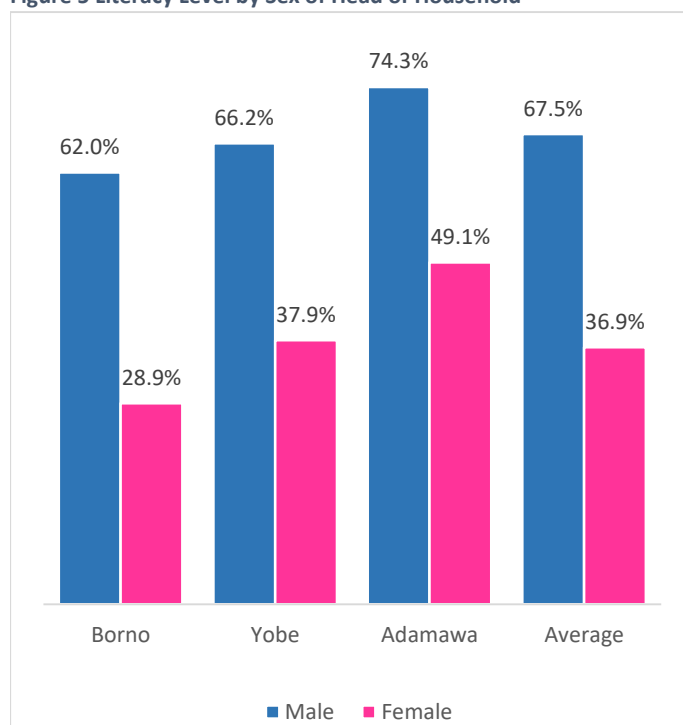
3.1.4 Average Size of Household

The average household size in BYA is 8 members. The average size of households is slightly higher in Yobe State (9 members) than in Borno and Adamawa States (7 members). At the LGA level, the average household size range between 5 members in Bama (Borno State) and 10 members in Geidam, Potiskum and Bade all in Yobe State. LGAs with relatively large household sizes (an average of 9 members) are found in Gubio, Kala Balge, Askira Uba, Kwaya Kusar and Kukawa in Borno State, Yunusari, Karasuwa, Nangere, Fika, Jakusko and Gulani in Yobe State, and Fufore and Jada in Adamawa State. Conversely, LGAs with relatively small household sizes (6 members) are situated in Mobbar, Nganzai and Mongunu in Borno State and Demsa, Lamurde, Toungo, Numan, Hong, Guyuk and Maiha in Adamawa State (*for LGA level analysis, refer to* **Figure 7**).

In the three north eastern states of Nigeria, majority of the people in the surveyed households (69 percent) are between the ages of 5 to 59 years. While there are more male members of the household aged 5 to 17 years compared to female, there are slightly more female household members aged 18 to 59 years compared to their male counterparts. Moreover, 15 percent of household members are children aged 3 to 4 years, about 54 percent of which are female. Children aged less than 2 constitute about 12 percent of the entire population of the surveyed households. Some 56 percent of children less than 2 years of age are female, whereas the remaining 44 percent are male. The remaining 4 percent of the population of surveyed households are composed of elderly people (over 60 years), about 57 percent of which are male (**Figure 8**).

Figure 7 Average Size of Household by LGA

Borno		Yobe		Adamawa	
Bama	5	Yusufari	7	Maiha	6
Mongunu	6	Damaturu	7	Guyuk	6
Nganzai	6	Tarmuwa	7	Hong	6
Mobbar	6	Machina	8	Numan	6
Magumeri	7	Nguru	8	Toungo	6
Shani	7	Bursari	8	Lamurde	6
Ngala	7	Gujba	8	Demsa	6
Dikwa	7	Fune	8	Song	7
Mafa	7	Gulani	9	Michika	7
Bayo	7	Jakusko	9	Yola South	7
Kaga	7	Fika	9	Gombi	7
Gwoza	8	Nangere	9	Yola North	7
Chibok	8	Karasuwa	9	Mubi South	7
Maiduguri	8	Yunusari	9	Madagali	8
Jere	8	Bade	10	Girei	8
Hawul	8	Potiskum	10	Mubi North	8
Damboa	8	Geidam	10	Shelleng	8
Konduga	8			Mayo-Belwa	8
Biu	8			Ganye	8
Kukawa	9			Jada	9
Kwaya Kusar	9			Fufore	9
Askira Uba	9				
Kala Balge	9				
Gubio	9				

Figure 8 Population Pyramid (Borno, Yobe and Adamawa States)

21
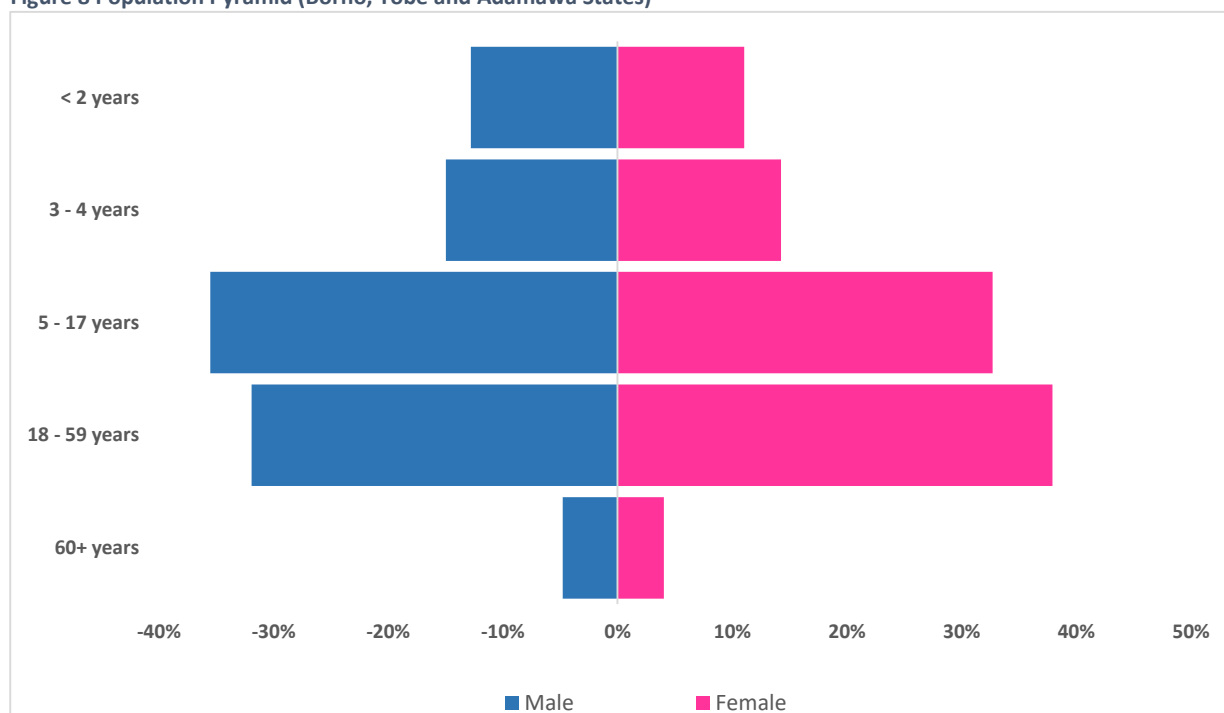
3.1.5 Household Dwelling Type

Generally, 76.9 percent of the surveyed households are permanent residents that have never left their place of dwelling. There are more permanent residents in Yobe (87.9 percent) and Adamawa (84.6 percent) States compared to Borno State (61.3 percent), which remains the epicentre of the ongoing hostilities within the region. Some 15.3 percent of the households are IDPs. Of this proportion, 9.1 percent are currently resident in host communities while 4.3 percent are living in much more structured and regulated camps and 1.8 percent are living in more informal settlements. As expected, Borno State which currently hosts the largest number of IDPs in BYA has the highest proportion of IDP households (26.3 percent) compared to Yobe (10.0 percent) and Adamawa (7.8 percent) States. In Borno State, the proportion of IDP households living in host communities, camps and informal settlements is 14.0 percent, 9.1 percent and 3.1 percent respectively. In Yobe and Adamawa States, the trends are similar to Borno State, with more IDP households living in host communities compared to camps and informal settlements. Returnees households (those who were previously displaced from their homesteads and finally returned), constitute 7.9 percent of the surveyed households. Thirteen (13) percent of returnee households are in Borno State, 7.6 percent are in Adamawa State and 2.1 percent in Yobe State (**Figure *9***).

Furthermore, most of the LGAs in Yobe State and Adamawa State have a high proportion of permanent resident households with the exception of a few LGAs which were completely affected by the hostilities in the northeast. In Yobe State, over 80 percent of households in all the LGAs are permanent residents except for Gujba (78.0 percent), Potiskum (67.7 percent) and Damaturu (66.5 percent), which have a fairly large proportion of IDP households in host communities (Gujba, Potiskum and Damaturu), camps (Damaturu) and returnees (Potiskum). Similarly, in Adamawa State, over 80 percent of households in most LGAs are permanent residents except for Hong (78.1 percent), Yola South (71.1 percent), Michika (62.7 percent) and Madagali (1.9 percent). While Michika (14.1 percent) and Madagali (12.2 percent) particularly have a slightly high proportion of IDP households living in host communities, returnee households are densely concentrated in Madagali (81.4 percent) and to a lesser extent in Michika (22.7 percent) and Hong (17.3 percent).

In Borno State on the contrary, there are only nine LGAs (Kwaya Kusar, Bayo, Askira Uba, Hawul, Shani, Ngala, Biu, Magumeri and Chibok) where more than 80 percent of the households are permanent residents. Most of the IDP households in Borno State are concentrated in Bama (100 percent), Kala Balge (98.4 percent), Dikwa (68.8 percent), Gwoza (59.0 percent), Maiduguri (50.1 percent), Mongunu (47.3 percent), Konduga (43.0 percent) and Jere (33.5 percent). With respect to IDP households in host communities, the LGAs of concentration are Dikwa (58.5 percent), Mongunu (38.4 percent), Gwoza (35.7 percent), Maiduguri (29.2 percent), Konduga (24.3 percent), Jere (23.5 percent), Mafa (23.3 percent) and Nganzai (22.2 percent). In Bama and Kala Balge, almost all the households (99.7 percent and 81.5 percent respectively) are IDPs living in camps which are managed and regulated by the military. Additionally, Gwoza (18.3 percent), Maiduguri (12.9 percent), Mobbar (12.3 percent) and Damboa (10.6 percent) have a fairly high proportion of IDP households living in camps. For IDP households living in informal settlements, the highest proportions are in Kaga (21.5 percent), Konduga (9.8 percent), Kukawa (8.7 percent) and Maiduguri (8.0 percent). In view of the improvement in the security situation in some LGAs, there is a high return of previously displaced households back to their primary homestead in the cases of Damboa (77.0 percent), Gubio (59.7 percent), Mobbar (52.1 percent) and Dikwa (24.2 percent) (*for LGA level analysis, refer to* **Figure *10***)*.*

Figure 9 Household Dwelling by State

	Permanent residents	IDPs/Camps	IDPs/Host community	IDPs/informal settlement	Returnees
Average	76.9%	4.3%	9.1%		7.9%
Adamawa	84.6%	1.7%	5.1%		7.6%
Yobe	87.9%	1.2%	7.7%		2.1%
Borno	61.3%	9.1%	14.0%		12.5%
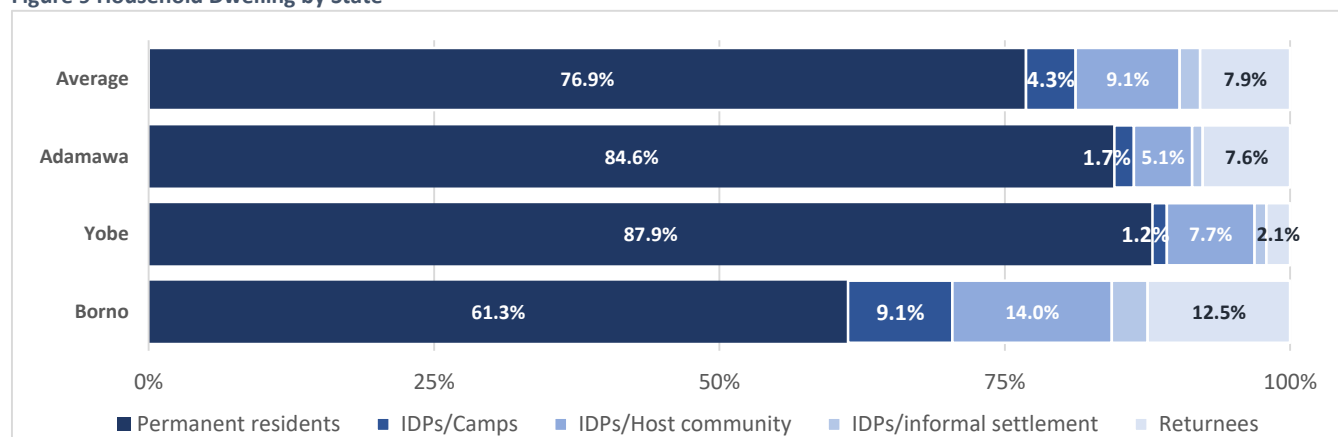
Figure 10 Household Dwelling by LGA

■ Permanent residents ■ IDPs/Camps ■ IDPs/Host community ■ IDPs/informal settlement ■ Returnees
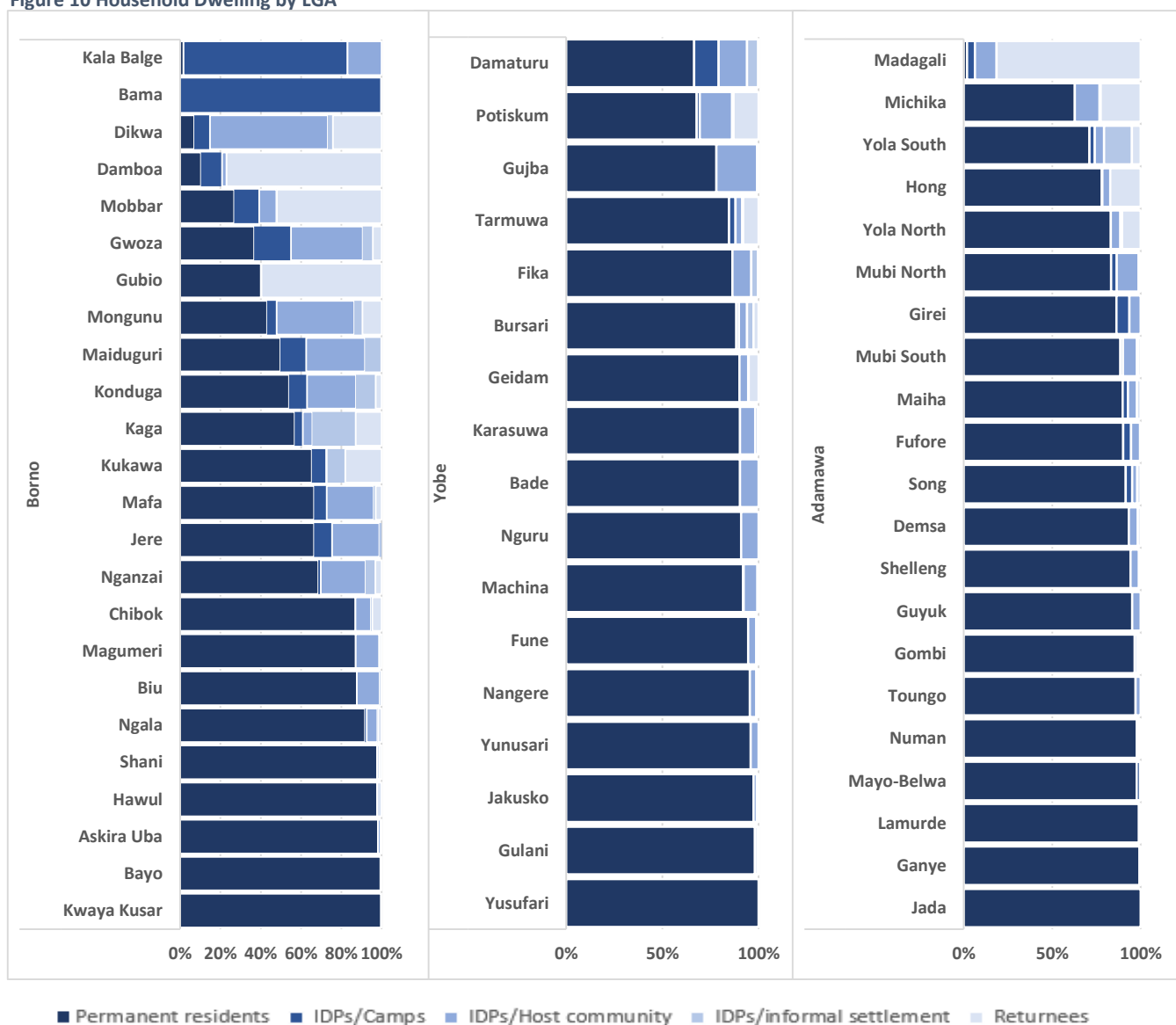
3.2 Agriculture

3.2.1 Access to Land

Agriculture is one of the main sources of livelihood in the northeast and as a result, access to land is a key determinant of households' ability to obtain income or produce food to meet the needs of the household. Overall, 63.7 percent of the surveyed households in BYA have access to land. Households' access to land is higher in Adamawa State (74.3 percent) than in Yobe (72.5 percent) and Borno (47.2 percent) States. Of the households that have land access, 66.8 percent of the property is privately owned, 26.6 percent are either rented or leased, 5.4 percent are shared/group land or through share cropping and 1.3 percent land allocated to IDPs by host communities. There are more households with privately owned lands in Yobe (74.1 percent) and Adamawa (67.0 percent) States compared to Borno State (57.9 percent). On the other hand, there are more households with either rented or leased lands in Borno State (34.1 percent) compared to Adamawa (28.7 percent) and Yobe (17.5 percent) States. At the LGA level, over 50 percent of the households in most of the surveyed LGAs have access to land with a notable exception for Monguno (46.3 percent), Kala/Balge (42.9 percent), Mobbar (35.1 percent), Ngala (25.0 percent), Mafa (22.6 percent), Gwoza (21.0 percent), Maiduguri (18.4 percent), Jere (9.5 percent), Dikwa (7.0 percent) and Bama (7.0 percent) in Borno State, Damaturu (49.6 percent) and Potiskum (41.9 percent) in Yobe State, and Yola North (18.8 percent) in Adamawa State (*for LGA level analysis, refer to* **Figure 11**).

Figure 11 Land Access by LGA
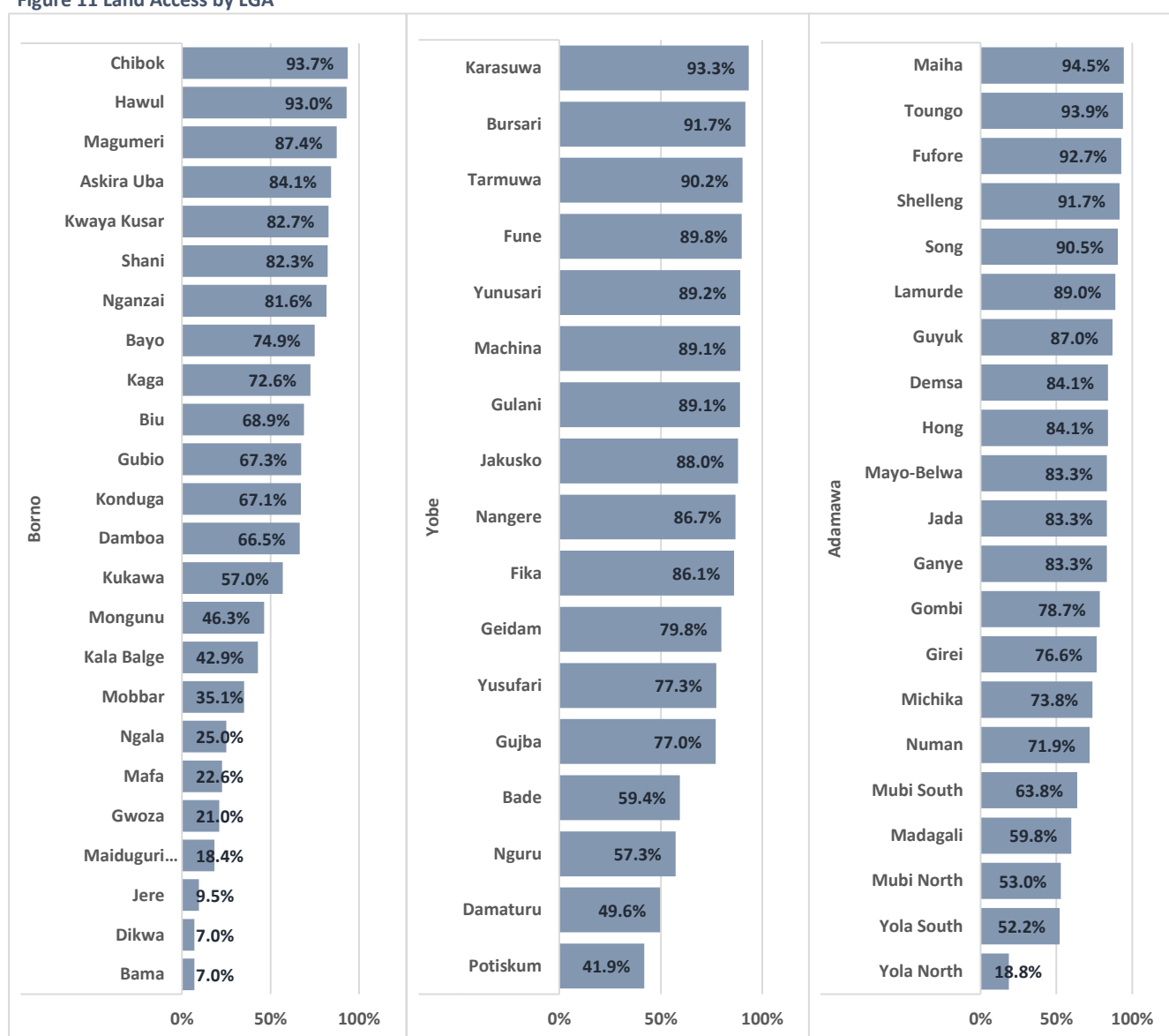
Moreover, IDPs generally have limited access to land compared to permanent residents and returnees. More than half of permanent residents (75.6 percent) and returnees (59.7 percent) have access to land compared to 47.6 percent of IDP households in informal settlements, 41.6 percent of IDP households in host communities and only 22.7 percent of IDP households in camps. Over 50 percent of IDP households that have access to land either rent or lease such land for cultivation purpose. A few permanent residents have allocated farmlands to IDP households as seen in the case of IDP households in camps (14.1 percent), IDP households in host communities (12.9 percent) and IDP households in informal settlements (9.2 percent). At the state level, access to land is disproportionately limited among IDP households in camps (14.1 percent) particularly in Borno State compared to their counterpart IDP households in host communities and informal settlements as well as other IDP households in Yobe and Adamawa States (*Figure 12*).

Figure 12 Land Access by State and Dwelling
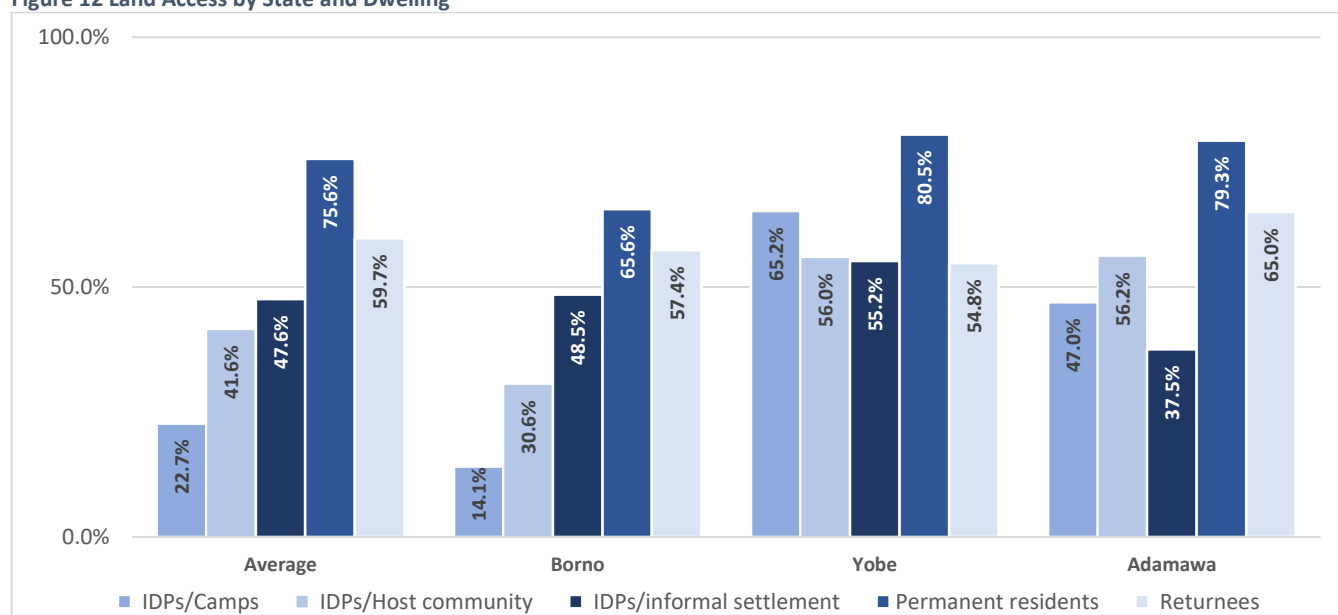
3.2.2 Access to Agricultural Equipment and Storage Facilities

Access to agricultural equipment is quite limited with only 32.2 percent of agricultural households in BYA having access to these essential equipment to either produce or transform their agricultural produce. The proportion of households with access to agricultural equipment is 34.8 percent in Borno State, 33.1 percent in Adamawa State and 28.8 percent in Yobe State. This achievement could be attributed to the ongoing agricultural and livelihood support by the Government of Nigeria and the humanitarian community. At the LGA level, the highest proportion of households that have access to agricultural equipment are situated in Ngala (85.0 percent), Shani (82.2 percent), Kukawa (64.2 percent), Askira Uba (47.2 percent), Bayo (45.1 percent), Biu (43.8 percent) and Dikwa (43.5 percent) in Borno State, Fika (67.7 percent), Fune (46.8 percent) and Bursari (44.4 percent) in Yobe State and Guyuk (69.7 percent), Ganye (58.0 percent), Madagali (56.9 percent), Yola North (56.7 percent), Hong (56.5 percent) and Yola South (54.8 percent) in Adamawa State. By contrast, the lowest proportion of households with access to agricultural equipment are found in Magumeri (16.7 percent), Monguno (15.8 percent), Kaga (11.7 percent) and Gwoza (1.6 percent) in Borno State, Karasuwa (12.0 percent), Bade (5.6 percent), Yunusari (3.2 percent), Yusufari (2.6 percent) and Machina (0.7 percent) in Yobe State and Shelleng (9.4 percent), Mubi North (8.2 percent), Mubi South (7.8 percent) and Numan (2.3 percent) in Adamawa State (*for LGA level analysis, refer to* **Figure 13**).

Figure 13 Access to Agricultural Equipment by LGA
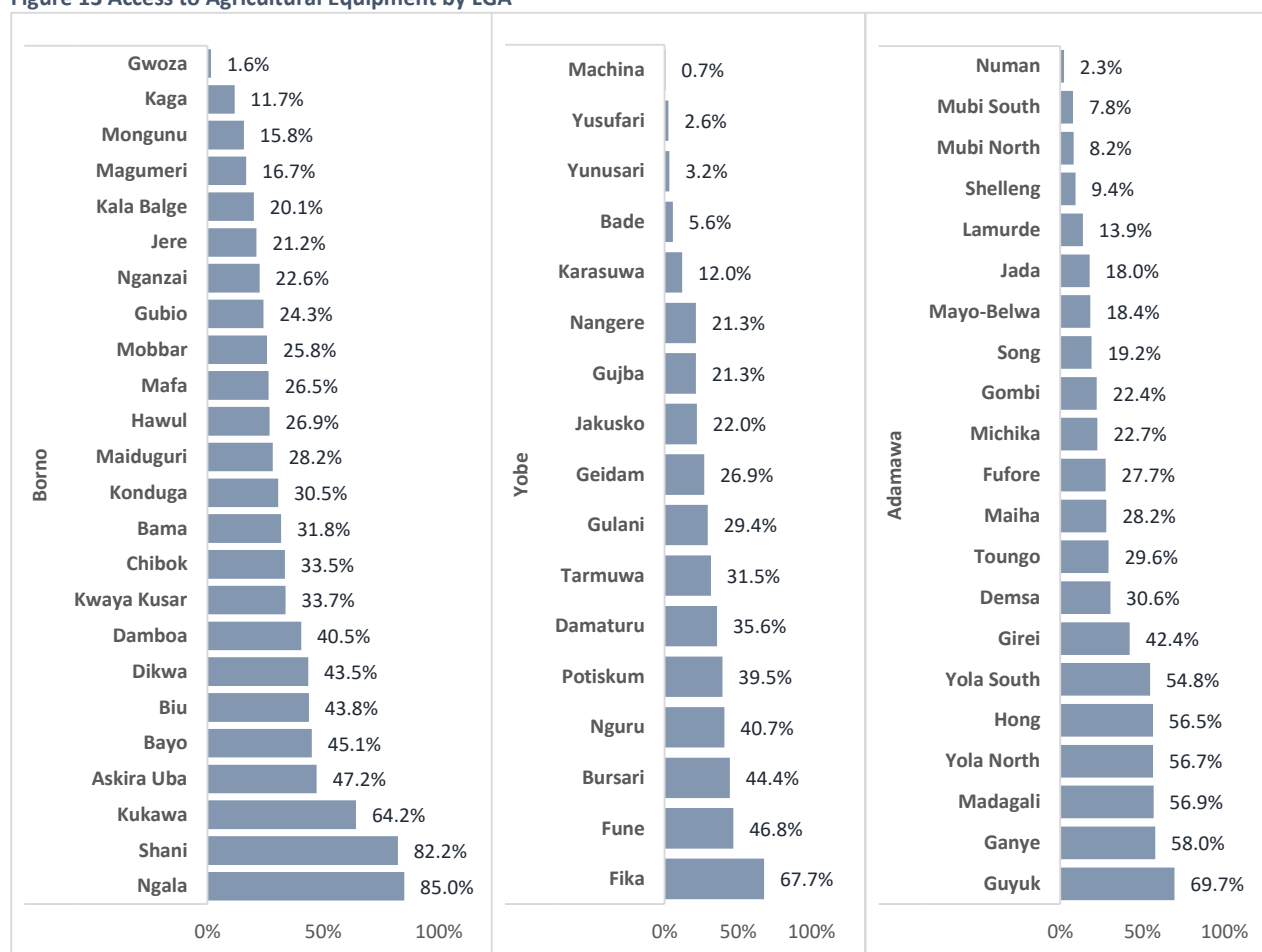
Overall, nearly half (48.5 percent) of all agricultural households in BYA lack access to storage facilities. Half of all assessed households (50.8 percent) in Yobe State, along with 47.9 percent in Adamawa State and 46.6 percent in Borno State do not have access to storage infrastructure. Among households that have access to storage facilities (51.5 percent), majority are self-owned (46.0 percent) usually by one or more member(s) of the household. This type of access and ownership is prevalent in Borno (44.7 percent), Yobe (45.4 percent) and Adamawa (47.5 percent) States. Additionally, 5.1 percent of agricultural households can access storage facilities through rental or lease. Household access to rented or leased storage facilities is 8.0 percent in Borno State, 4.4 percent in Adamawa State and 3.7 percent in Yobe State (**Figure 14**). In 10 out of the 17 LGAs in Yobe State, over half of agricultural households lack access to storage facilities compared to 10 out of 24 in Borno State and 10 out of 21 in Adamawa State. The LGAs with the highest proportion of households without access to storage facilities are Nangere (82.5 percent) and Tarmua (81.9 percent) in Yobe State, Monguno (79.5 percent), Mobbar (77.3 percent) and Nganzai (71.2 percent) in Borno State and Mubi North (92.4 percent), Numan (88.5 percent), Lamurde (72.3 percent) and Song (71.3 percent) in Adamawa State. At the LGA level, the rental of storage facilities is found to be relatively high in Damboa (31.4 percent), Bayo (21.4 percent) and Jere (21.2 percent) all in Borno State (*for LGA level analysis, refer to* **Figure 15**).

Figure 14 Access to Storage Facilities by State

Legend:
- ■ Yes, I own the facility
- ■ Yes, a household member owns the facility
- ■ Yes, I am part of an Farmers Organisation that owns the equipment
- ■ Yes, I can rent the equipment for a fee
- ■ No

State	Yes, I own the facility	Yes, a household member owns	Yes, part of Farmers Organisation	Yes, can rent	No
Average	40.3%	5.8%	5.1%		48.5%
Adamawa	42.9%	4.6%	4.4%		47.9%
Yobe	39.2%	6.2%	3.7%		50.8%
Borno	37.7%	7.0%	8.0%		46.6%
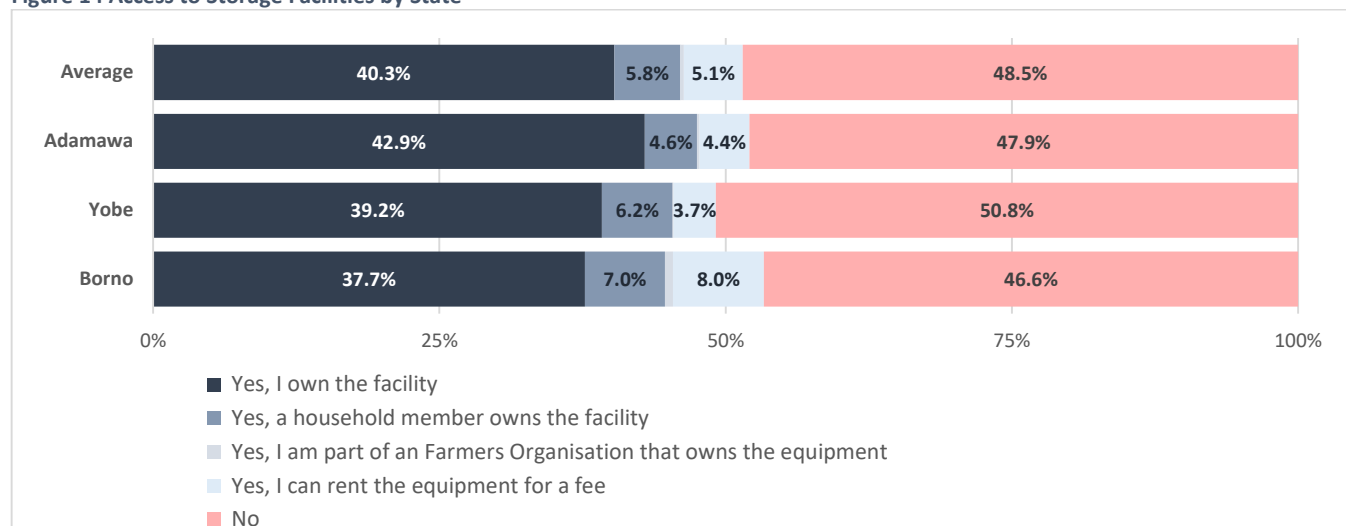
Figure 15 Access to Storage Facilities by LGA

Legend:
- ■ Yes, I own the facility
- ■ Yes, a household member owns the facility
- ■ Yes, I am part of an Farmers Organisation that owns the equipment
- ■ Yes, I can rent the equipment for a fee
- ■ No
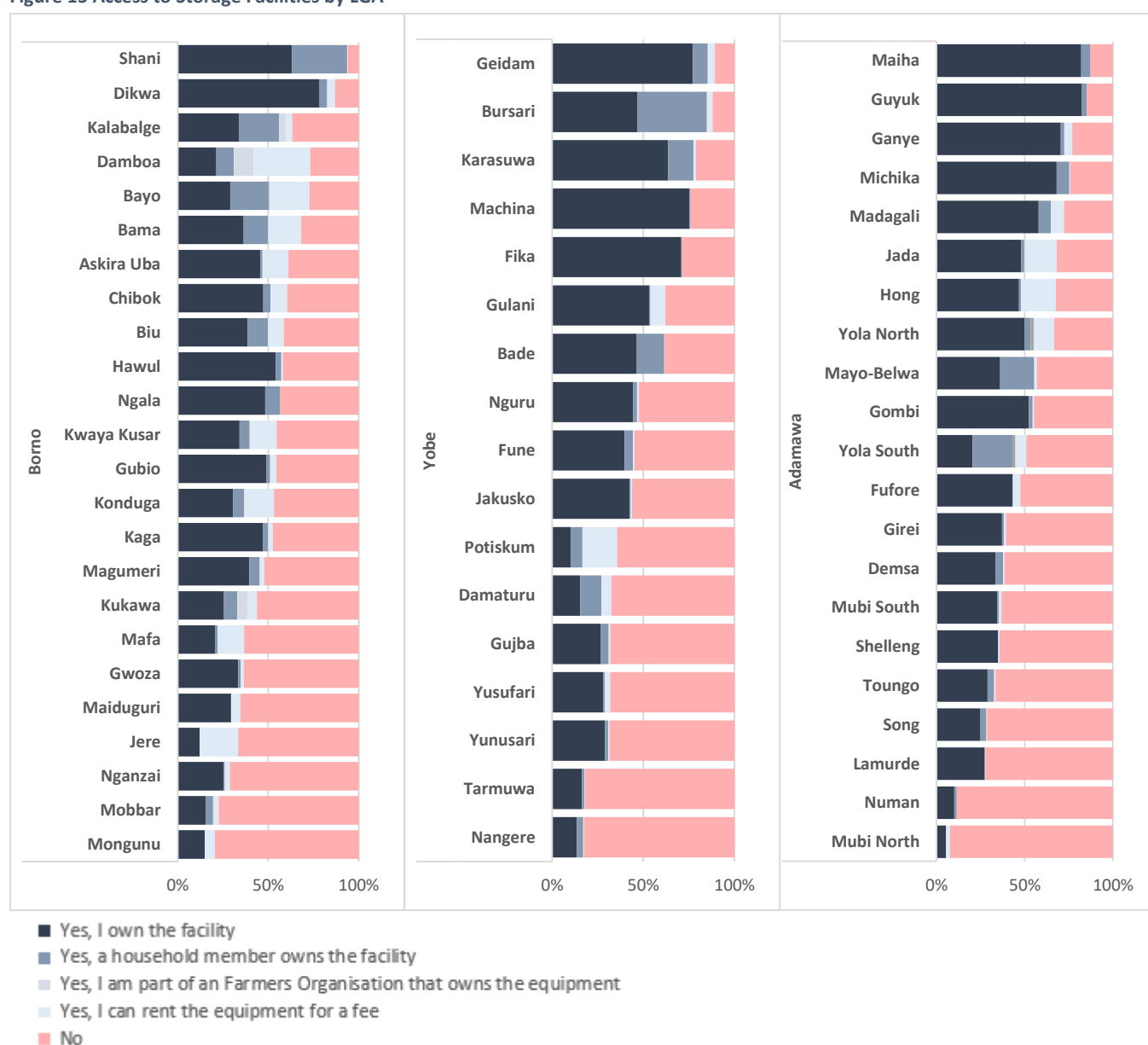
3.2.3 Households' Involvement in 2017 Agricultural Planting Season

Generally, 92.4 percent of all agricultural households were involved in crop cultivation during the 2017 agricultural planting season, with equally high proportion of such households in Adamawa State (94.4 percent), Yobe State (92.8 percent) and Borno State (89.2 percent). For households that could not practice agriculture during the 2017 growing season, the main deterrent factors were predominantly related to limited financial capacity (29.0 percent), insecurity (22.0 percent), insufficient rainfall and extended dry spells (11.1 percent) and lack of seeds and tools (10.6 percent) (**Figure 16**). While insecurity (51.2 percent) and limited financial capacity (21.3 percent) are found to be the major factors that prevented about 10.8 percent of households from cultivating during the 2017 agricultural planting season in Borno State, limited financial capacity (28.2 percent), insufficient rainfall and extended dry spells (23.4 percent) and lack of seeds and tools (21.0 percent) are the major limiting factors in Yobe State. In the case of Adamawa State, poor access to financial resources by agricultural households (39.9 percent) remains the predominant delimiting factor in Adamawa State. At the LGA level, over 70 percent of agricultural households cultivated during the 2017 planting season except for Kukawa (69.9 percent), Maiduguri (66.7 percent), Dikwa (60.9 percent), Mafa (60.3 percent), Bama (59.1 percent), Kala Balge (40.9 percent) and Mobbar (21.1 percent), all of which are situated in Borno State state where the ongoing hostilities continue to hamper livelihood opportunities (*for LGA level analysis, refer to* **Figure 17**).

Figure 16 Limiting Factors Hampered involvement in the 2017 Agricultural Planting Season by State
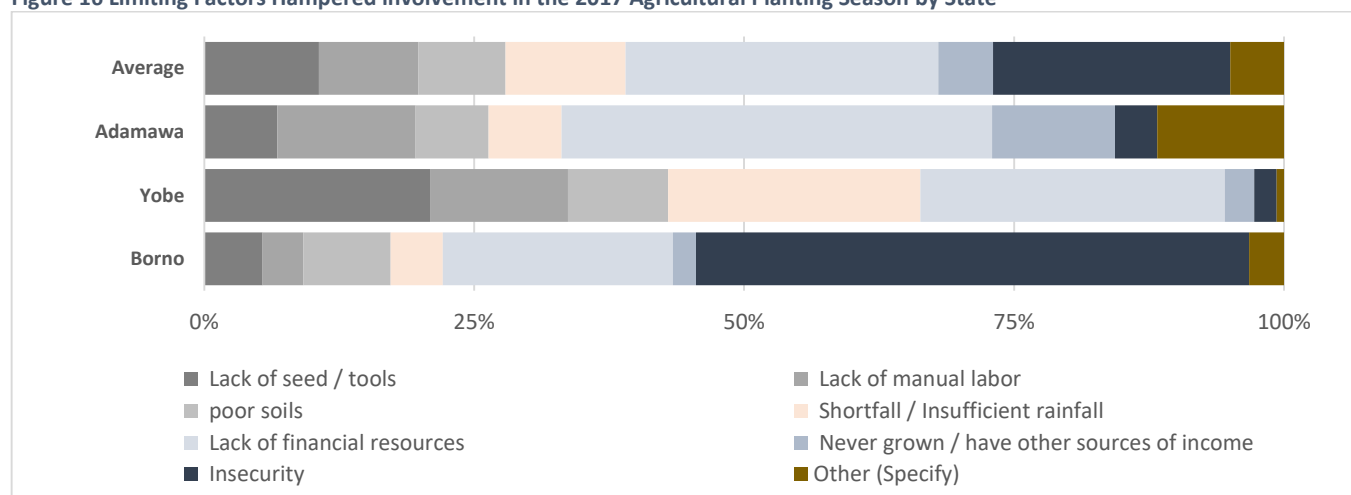
Over half of all agricultural households consented that their harvest from the agricultural planting season in 2017 is either better (43.9 percent) or the same (26.0 percent) compared to 2016, a trend which is consistent across BYA (**Figure 18**). These findings suggest an overall improvement in the agricultural output from BYA when compared to 2016, a period when the ongoing hostilities in the northeast was more widespread with dire consequences on agriculture. Moreover, the harvest from the 2017 agricultural planting season will cover a minimum of 6 months for 42.6 percent of households in Adamawa (56.8 percent), Borno (33.4 percent) and Yobe (32.2 percent) States (**Figure 19**).

Figure 17 Limiting Factors Hampered involvement in the 2017 Agricultural Planting Season by LGA

- ■ Lack of seed / tools
- ■ poor soils
- ■ Lack of financial resources
- ■ Insecurity
- ■ Lack of manual labor
- ■ Shortfall / Insufficient rainfall
- ■ Never grown / have other sources of income
- ■ Other (Specify)
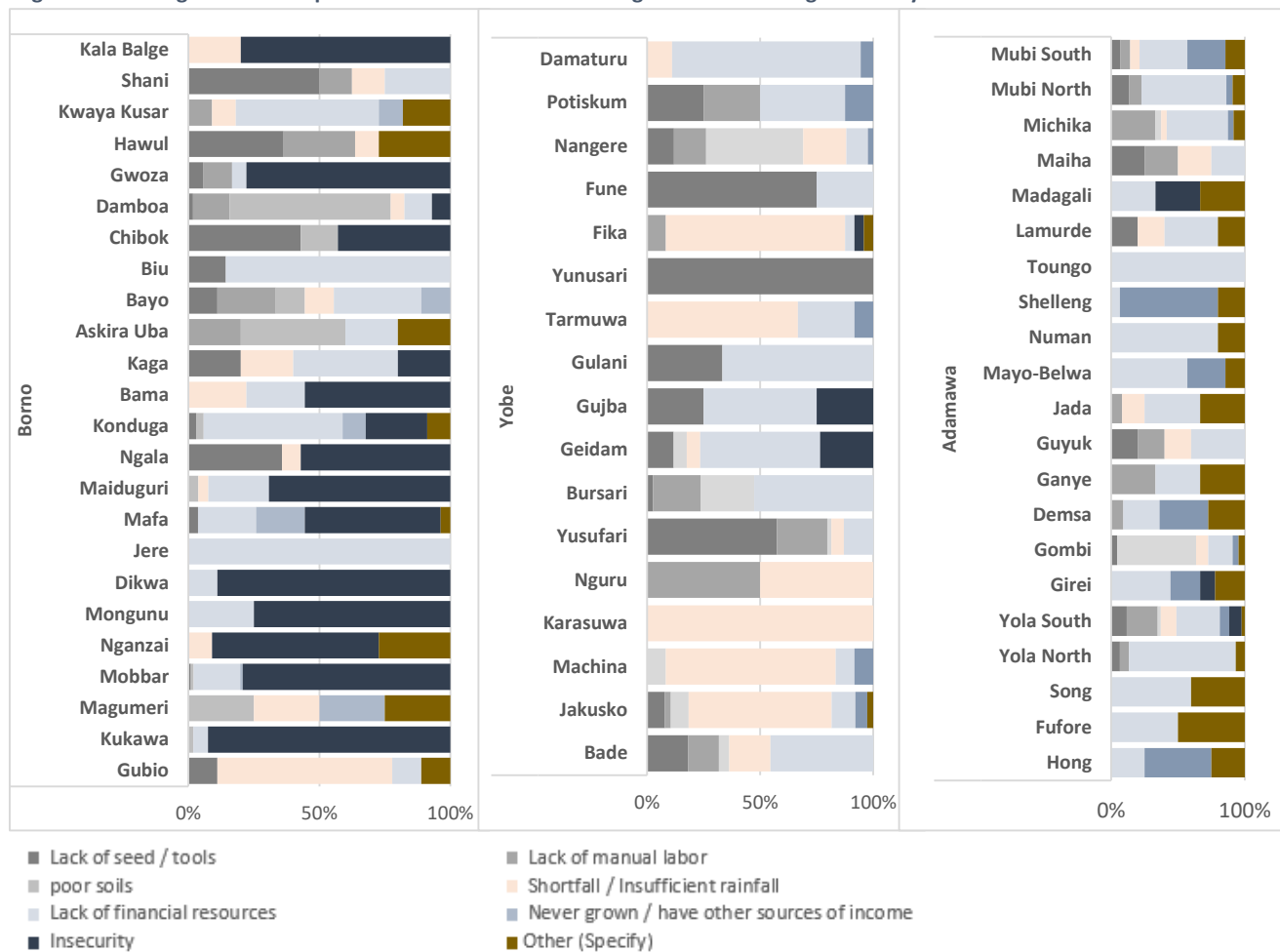
Figure 18 2017 versus 2016 Harvest by State

- ■ Better
- ■ Same
- ■ Less
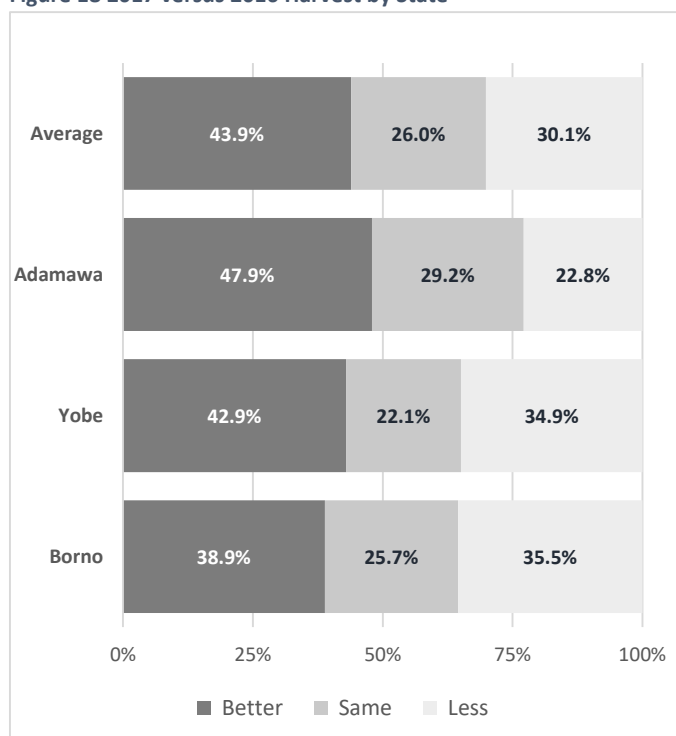
Figure 19 Harvest Stock Coverage in Months by State

- ■ Less than 3 months
- ■ 6 to 9 months
- ■ Greater than 12 months
- ■ 3 to 6 months
- ■ 9 to 12 months
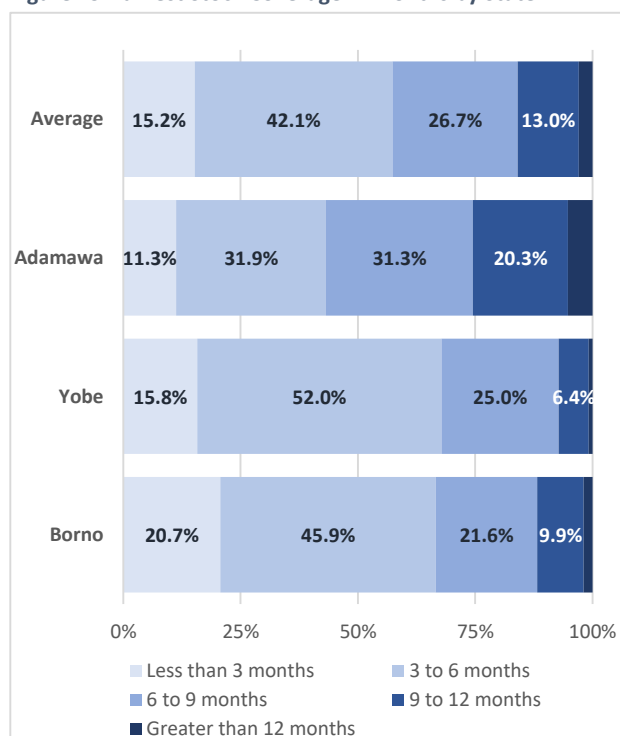
3.2.3.1 Major Food and Cash Crops Cultivated

Maize (33.0 percent) remains the main food crop cultivated by households in BYA followed by sorghum (28.0 percent), millet (23.1 percent) and rice (15.7 percent). While households in Yobe State mainly cultivate sorghum (41.9 percent) and millet (40.0 percent), their counterparts in Borno State cultivate maize (36.9 percent) in addition to sorghum (24.3 percent) and millet (26.4 percent). On the other hand, households in Adamawa State are more involved in the cultivation of maize (46.6 percent), rice (26.3 percent) and Sorghum (19.4 percent).

The predominant cash crops cultivated across the surveyed households are beans (28.9 percent), groundnut (19.7 percent), Maize (12.8 percent), Rice (8.0 percent), Millet (7.6 percent) and Sorghum (7.3 percent). Beans is found to be the major cash crop that is cultivated by households in Borno State (35.4 percent) and Yobe State (36.4 percent) compared to Adamawa State where maize is found to be the predominant cash crop with a slightly higher proportion of households (19.6 percent) involved in its cultivation compared to those cultivating Beans (18.7 percent). While there are more households in Borno State that are involved in the cultivation of groundnut, Yobe State has more households that are involved in the cultivation of millet, whereas Adamawa State has more households that cultivate rice to earn some income (**Figure 20**).

Figure 20 Cash Crops Cultivated by States
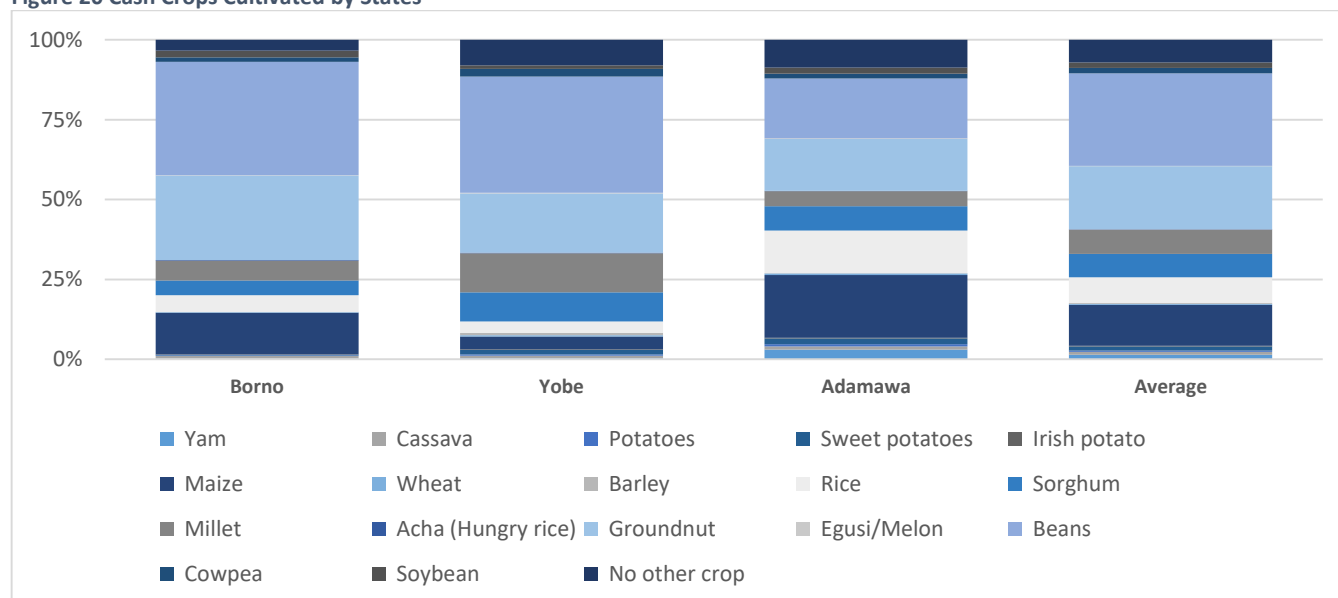
3.2.3.2 Households' Involvement in Dry Season Farming

About one in every five (22.1 percent) agricultural households intend to participate in dry season farming between November 2017 and April 2018. There is slightly more of such households in Adamawa State (25.7 percent) compared to Yobe (20.0 percent) and Borno (19.4 percent) States. Most of these households that will be involved in dry season farming intend to start cultivating between November and December 2017. The factors that underscore the decision of majority of households to back out from the dry season farming between November 2017 and April 2018 are predominantly related to financial challenges, security and rainfall adequacy concerns and lack of seeds and tools. At the LGA level, the lowest proportion of households that will participate in the 2017/2018 dry season farming are found in Maiduguri (9.0 percent), Dikwa (8.7 percent), Gubio (8.4 percent), Monguno (6.8 percent), Kaga (5.2 percent), Biu (3.7 percent), Magumeri (1.1 percent) and Nganzai (0 percent) in Borno State, Fika (9.8 percent), Nguru (9.5 percent), Potiskum (7.0 percent), Nangere (5.6 percent), Damaturu (3.7 percent), Karasuwa (2.6 percent and Machina (0.3 percent) in Yobe State and Mayo Balewa (9.8 percent), Girei (9.7 percent) and Gombi (3.4 percent) in Adamawa State (*for LGA level analysis, refer to* **Figure 21**).

Figure 21 Household's Participation in 2017/2018 Dry Season Farming by LGA

Borno

LGA	%
Nganzai	0.0%
Magumeri	1%
Biu	3.7%
Kaga	5.2%
Mongunu	6.8%
Gubio	8.4%
Dikwa	8.7%
Maiduguri	9.0%
Kwaya Kusar	10.0%
Gwoza	11.1%
Jere	12.1%
Chibok	16.0%
Mafa	16.2%
Askira Uba	16.6%
Konduga	17.7%
Bayo	18.3%
Bama	22.7%
Kala Balge	24.4%
Hawul	30.3%
Mobbar	45.3%
Damboa	50.5%
Kukawa	50.6%
Shani	63.6%
Ngala	71.7%

Yobe

LGA	%
Machina	0.3%
Karasuwa	2.6%
Damaturu	3.7%
Nangere	5.6%
Potiskum	7.0%
Nguru	9.5%
Fika	9.8%
Gujba	14.1%
Jakusko	16.7%
Tarmuwa	19.9%
Yusufari	22.0%
Fune	24.5%
Geidam	28.1%
Bursari	29.8%
Gulani	34.2%
Yunusari	52.9%
Bade	58.7%

Adamawa

LGA	%
Gombi	3.4%
Girei	9.7%
Mayo-Belwa	9.8%
Toungo	10.7%
Michika	11.0%
Jada	11.2%
Guyuk	15.0%
Madagali	16.2%
Ganye	20.0%
Mubi North	23.9%
Hong	25.7%
Shelleng	28.0%
Yola North	31.7%
Mubi South	31.9%
Demsa	32.1%
Fufore	33.6%
Yola South	33.9%
Numan	37.2%
Maiha	40.7%
Song	50.3%
Lamurde	56.6%

3.2.4 Constraints of Agricultural Practice

The challenges that inhibit optimal agricultural outputs are related to limited financial capacity of agricultural households (28.0 percent), pest infestation and diseases (19.7 percent), limited rainfall and extended dry spells (12.1 percent), high cost of agricultural inputs (11.9 percent), low soil fertility (7.8 percent) and insecurity (3.8 percent). While financial limitation remains a cross cutting challenge for households in Borno (26.6 percent), Yobe (28.2 percent) and Adamawa (28.7 percent) States, there are slight variations on the intensity of the other agricultural constraints across the three northeast states. Households in Yobe (25.7 percent) and Borno (20.9 percent) States are more affected by pest infestations and diseases compared to counterparts in Adamawa State (14.2 percent). Similarly, the effect of delayed rainfall and extended dry spells is most pronounced in Yobe State (16.5 percent), followed by Borno State (13.5 percent) and then Adamawa State (7.8 percent). The high cost of agricultural inputs remains a key deterrent to agricultural practice in Adamawa State (19.0 percent) compared to Borno (6.9 percent) and Yobe (7.1 percent) States. Moreover, the ongoing hostilities in the northeast continues to disproportionately inhibit agricultural practice among households in Borno State (9.1 percent) compared to Adamawa (2.6 percent) and Yobe (1.1 percent) States (**Figure 22**).

Figure 22 Constraints of Agricultural Practice by State

Legend:
- Insecurity
- Lack of seeds
- Low soil fertility
- Pests and diseases
- Lack of cash/money
- Lack of land
- Lack of rain/delayed rainfall
- High costs for agricultural inputs
- High costs for labour
- Lack of access to credit, collateral
- Lack of storage facilities
- Lack of animal health staff
- Lack of animal Feed//Fodder
- Lack of access to market
- Lack of fishing inputs
- Fish diseases
- No other constraint

3.3 Mobile Phone Ownership

During this round of EFSA, households were asked questions on their access to and ownership of mobile phones, internet enabled mobile phones and usage of social media in order to explore the potentials for innovative mobile driven approaches to remote collection and sharing of food security and market information in Nigeria. WFP has successfully piloted and scaled-up similar mobile vulnerability analysis and mapping (mVAM) initiatives to remotely collect and share food security and market information in Democratic Republic of Congo, Somalia, Iraq and Malawi. In all these countries, mVAM strengthened the food security and market monitoring system, through which regular updates on food security situation, household's coping strategies, food prices and market functionality were generated.

Overall, 61.1 percent of households have one or more members that owns a mobile phone with the lowest proportion of such households situated in Borno State (51.9 percent) compared to Adamawa State (69.0 percent) and Yobe State (63.5 percent). As expected, the rate of ownership of mobile phone is higher among households in urban areas such as Maiduguri (85.9 percent), Jere (81.1 percent), Potiskum (90.4 percent), Damaturu (67.5 percent) and Yola North (91.6 percent). Households in rural areas, particularly those in LGAs such as Bama (14.9 percent), Monguno (9.8 percent), Gwoza (9.7 percent) and Dikwa (1.8 percent) in Borno State that are affected by the ongoing hostilities and currently secured by the military, have the lowest proportion of households with mobile phone ownership. Sometimes, the military restricts mobile phone ownership and access in some of these areas as a security measure to curb the activities of NSAGs. Moreover, the rate of mobile phone ownership is higher among permanent resident households that have never been displaced from their homestead (60.1 percent) compared to IDP households in informal settlements (52.1 percent), IDP households in host communities (49.8 percent) and IDP households in camps (42.1 percent).

The rate of ownership of internet enabled phone remains relatively low with only about one in every ten (12.5 percent) of the surveyed households having one or more members that own an internet enabled phone. There are more households in Adamawa State (21.9 percent) with a minimum of one member that owns an internet enabled phone compared to Yobe State (8.6 percent) and Borno State (6.8 percent). The use of social media is relatively high among these households that have access to internet enabled phones and Facebook (71.2 percent) remains the most conversant social media platform compared to Twitter (20.0 percent) and Instagram (17.7 percent). There are more youths between the age of 18 to 30 years that are involved in the use of social media across the surveyed households compared to counterparts that are less than 18 years and older than 30 years (**Figure 23**). Despite the low ownership of internet enabled phones,

the relatively high rate of ownership of mobile phones creates an opportunity for mobile driven remote food security initiatives such as WFP's mVAM.

Figure 23 Age Group of Social Media Users (Facebook) by State
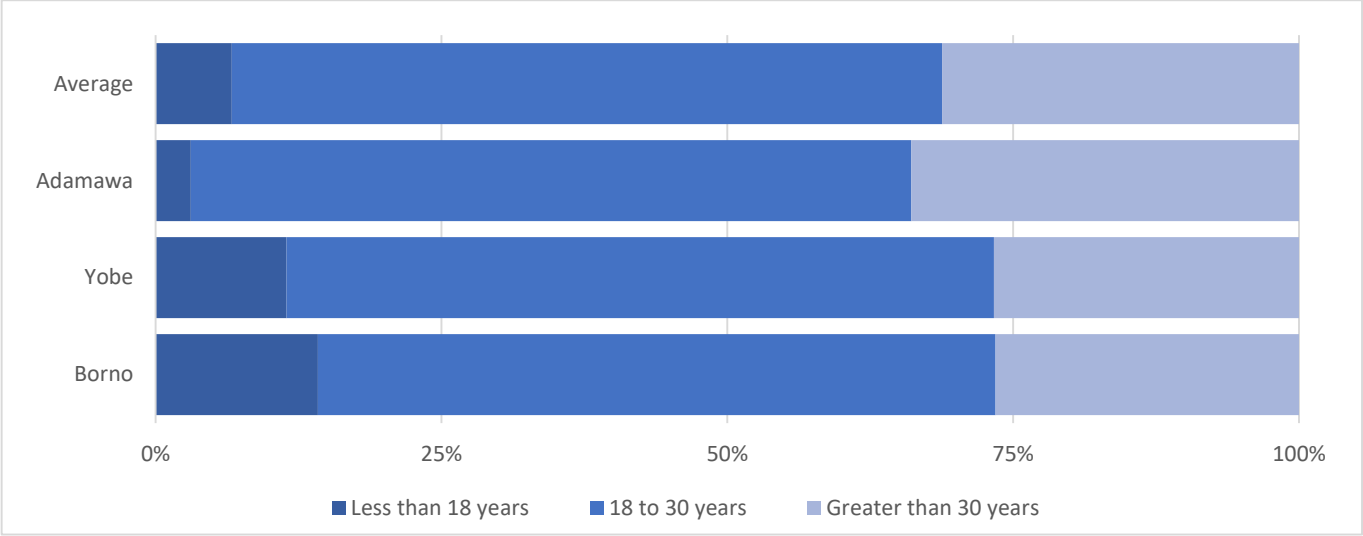
4.0 FOOD SECURITY
4.1 Food Security Status

"*Households are food secure when members have uninterrupted physical, social and economic access to sufficient, safe and nutritious food to cater for their dietary needs and an active and healthy life. In the absence of such access, households are considered to be food insecure*"

WFP's CARI Guideline

Overall, 34.3 percent of households across Borno (45.6 percent), Yobe (36.4 percent) and Adamawa (20.5 percent) States are food insecure (**Figure 24**). This marks a reduction of 10.3 percent in the proportion of food insecure households compared to March 2017[7]. The decrease is more pronounced in Borno and Adamawa States where the percentage of food insecure household dropped by 18.6 percent and 14.9 percent respectively. However, the proportion of food insecure households increased slightly from 34.1 percent to 36.4 percent in Yobe State (**Figure 25**).

Table 4 Consolidated Approach for Reporting Indicators on Food Security (CARI) Console[8]

Domain		Indicator	Food Secure (1)	Marginally Food Secure (2)	Moderately Food Insecure (3)	Severely Food Insecure (4)
Current Status	Food Consumption	Food Consumption Group	64.2		25.1	10.7
Coping Capacity	Economic Vulnerability	Food Expenditure Share	31.7	30.4	19.7	18.2
	Asset Depletion	Livelihood coping strategy categories	21.9	25.1	24.9	28.1
Food Security Index			13.6	52.1	29.7	4.7

Figure 24 Food Security Situation by State

Figure 24 Food Security Situation by State

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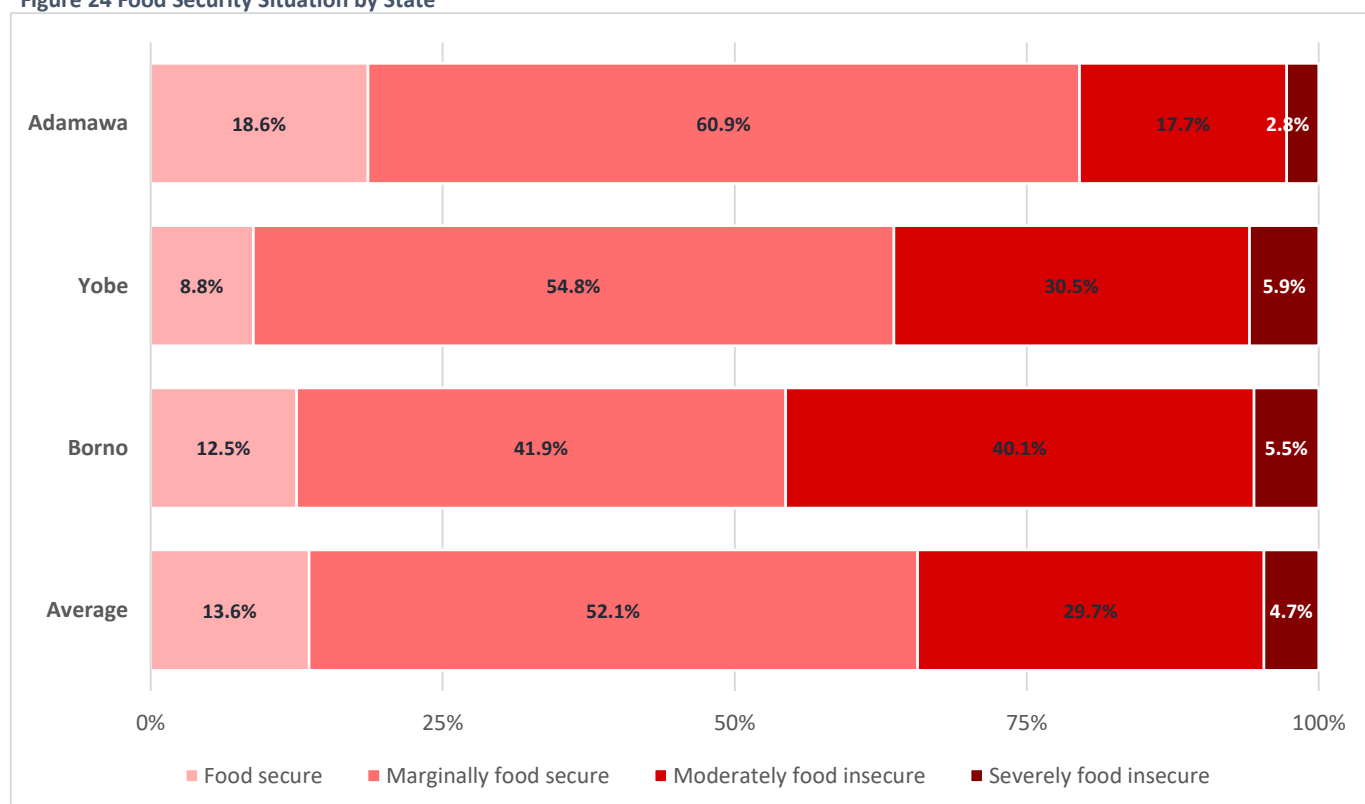
[7] Emergency Food Security Assessment in Three Northeast States (Adamawa State, Borno State & Yobe State) of Nigeria, March 2017. https://www.wfp.org/content/nigeria-emergency-food-security-assessment-Adamawa State-Borno State-Yobe State-nigeria-april-2017

[8] CARI was calculated using the food consumption score, share of food expenditure and coping strategies. The CARI guideline is available at: https://resources.vam.wfp.org/sites/default/files/CARI%20Guidance_2nd%20ed.pdf

Figure 25 Food Security Situation by State, October versus March 2017
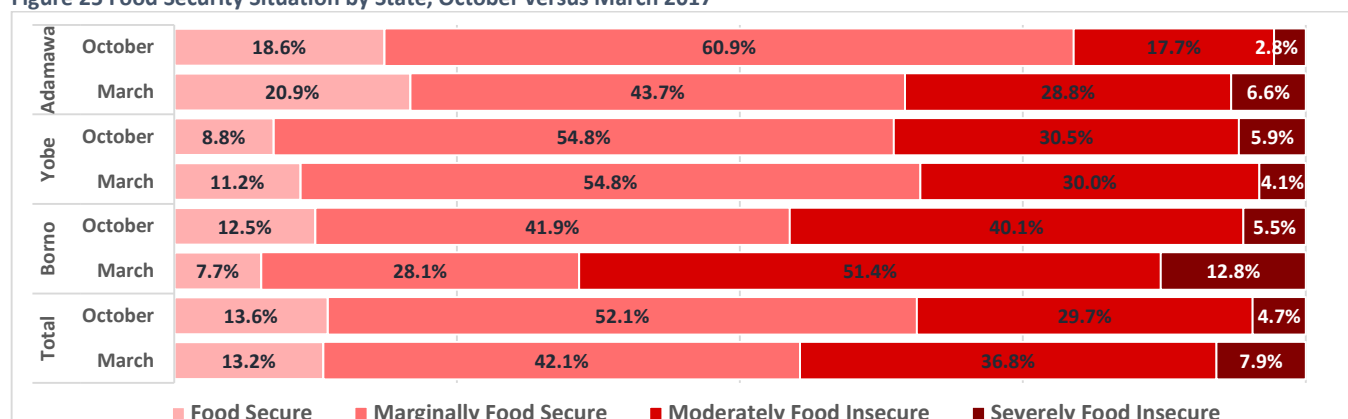
At the LGA level, food insecurity is high in several locations, with Fune (80.6 percent) in Yobe State and Damboa (78.9 percent) in Borno State having the highest proportions of food insecure households. There are nine additional LGAs in northern and central parts of Borno State (Ngala, Bama, Konduga, Kaga, Magumeri, Nganzai, Dikwa, Mafa and Mobbar) and three LGAs in Yobe State (Fune, Fika and Gujba) with food insecurity prevalence of at least 50 percent and majority of these locations are affected by the ongoing hostilities in the northeast. Additionally, Madagali and Song, where pockets of hostilities and communal conflicts have been reported, also have a high proportion of food insecure households in Adamawa State (*for LGA level analysis, refer to* **Figure *26*** & **Figure *29***).

Some 4.7 percent of these food insecure households are severely food insecure and are currently experiencing extreme food consumption gaps. Despite the apparent high prevalence of food insecurity, the prevalence of severe food insecurity across BYA has dropped by 3.2 percent compared to March 2017. At the state level, 5.9 percent, 5.5 percent and 2.8 percent of these households are in Yobe, Borno and Adamawa States respectively. The highest proportion of severely food insecure households are found in Fune (20.7 percent) and Gulani (20.2 percent) of in Yobe State, whereas in Borno State, more than one in every ten (10 percent) households remain severely food insecure in Damboa (19.3 percent), Ngala (14.6 percent), Mafa (12.6 percent), Konduga (12.2 percent), Bama (11.7 percent) and Kaga (10.7 percent).

Displaced households are more affected by food insecurity as IDPs in camps (54.9 percent), IDPs in informal settlement (51.9 percent) and IDPs in host communities (49.6 percent) are food insecure compared to 30.0 percent of permanent resident households. Moreover, more displaced households are found to be severely food insecure compared to returnees and permanent residents, with 10.6 percent of those households residing in camps, 9.4 percent in informal settlements and 8.4 percent in host communities compared to 7.5 percent and 3.8 percent of households that are returnees and permanent resident respectively. Despite the perceived high prevalence of food insecurity among displaced households, the proportion of food insecure households have reduced by 16.0 percent and 14.7 percent among IDP households living in camps and host communities respectively, indicating some measure of improvement in the food security situation.

Female headed households are disproportionately affected by food insecurity (44.3 percent) compared to their male counterparts (33.0 percent), a trend which was consistent across BYA. However, prevalence of food insecurity among female headed households generally dropped by 10.7 percent within households in Borno (7.1 percent), Yobe (6 percent) and Adamawa (20.9 percent) States. Similarly, there are more severely food insecure female-headed households (6.6 percent) compared to their male counterparts (4.4 percent), which is unsurprising since women living in the northeast have limited livelihood opportunities compared to men (**Figure *28***).

The overall reduction in the proportion of food insecure households indicates some more measure of improvement in the food security situation in the Northeast. Increased assistance (in-kind and cash) may have mitigated the worsening of food insecurity. The Nigerian Government, UN Agencies, and other key humanitarian actors increased assistance from approximately 600,000 beneficiaries in June 2016 to roughly 4 million people at the onset of the lean season in July 2017.[9,10]

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[9] Food Security Sector, July 2017 http://fscluster.org/nigeria/document/food-security-partner-presence-maps-july
[10] Food Security Sector, June 2016 http://fscluster.org/nigeria/document/food-security-sector-bulletin-northeast

Figure 26 Food Security Situation by Local Government Area (LGA)

Legend: Food secure | Marginally food secure | Moderately food insecure | Severely food insecure
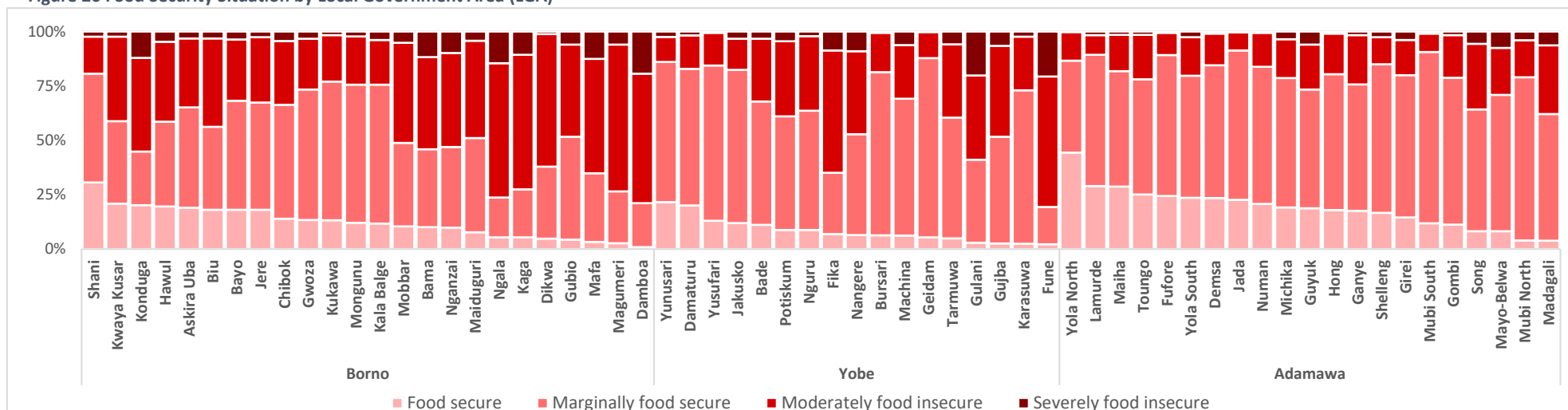
Figure 27 Food Security Situation by Household Dwelling

Dwelling	Food secure	Marginally food secure	Moderately food insecure	Severely food insecure
Returnees	8.4%	44.9%	39.2%	7.5%
Host community/Permanent resident	15.2%	54.9%	26.2%	3.8%
IDPs in informal settlement	7.1%	41.0%	42.5%	9.4%
IDPs in Host community	7.4%	43.1%	41.2%	8.4%
IDPs in Camps	6.3%	38.8%	44.3%	10.6%

Legend: Food secure | Marginally food secure | Moderately food insecure | Severely food insecure
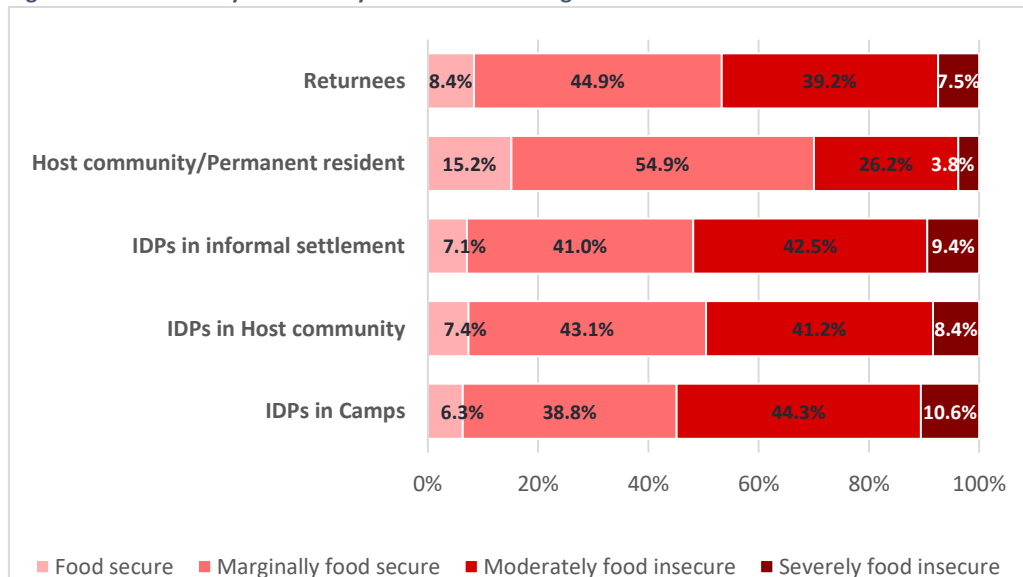
Figure 28 Food Security Situation by Sex of Head of Household

Region	Sex	Food secure	Marginally food secure	Moderately food insecure	Severely food insecure
Adamawa	Male	19.0%	61.4%	17.0%	2.6%
Adamawa	Female	15.3%	57.4%	23.5%	3.8%
Yobe	Male	9.0%	55.0%	30.1%	5.9%
Yobe	Female	6.6%	52.5%	35.1%	5.8%
Borno	Male	13.3%	43.1%	38.7%	5.0%
Borno	Female	8.6%	35.3%	47.6%	8.6%
Average	Male	14.0%	53.0%	28.6%	4.4%
Average	Female	10.4%	45.3%	37.7%	6.6%

Legend: Food secure | Marginally food secure | Moderately food insecure | Severely food insecure

Figure 29 Map of Global Food Insecurity (Moderate + Severe)
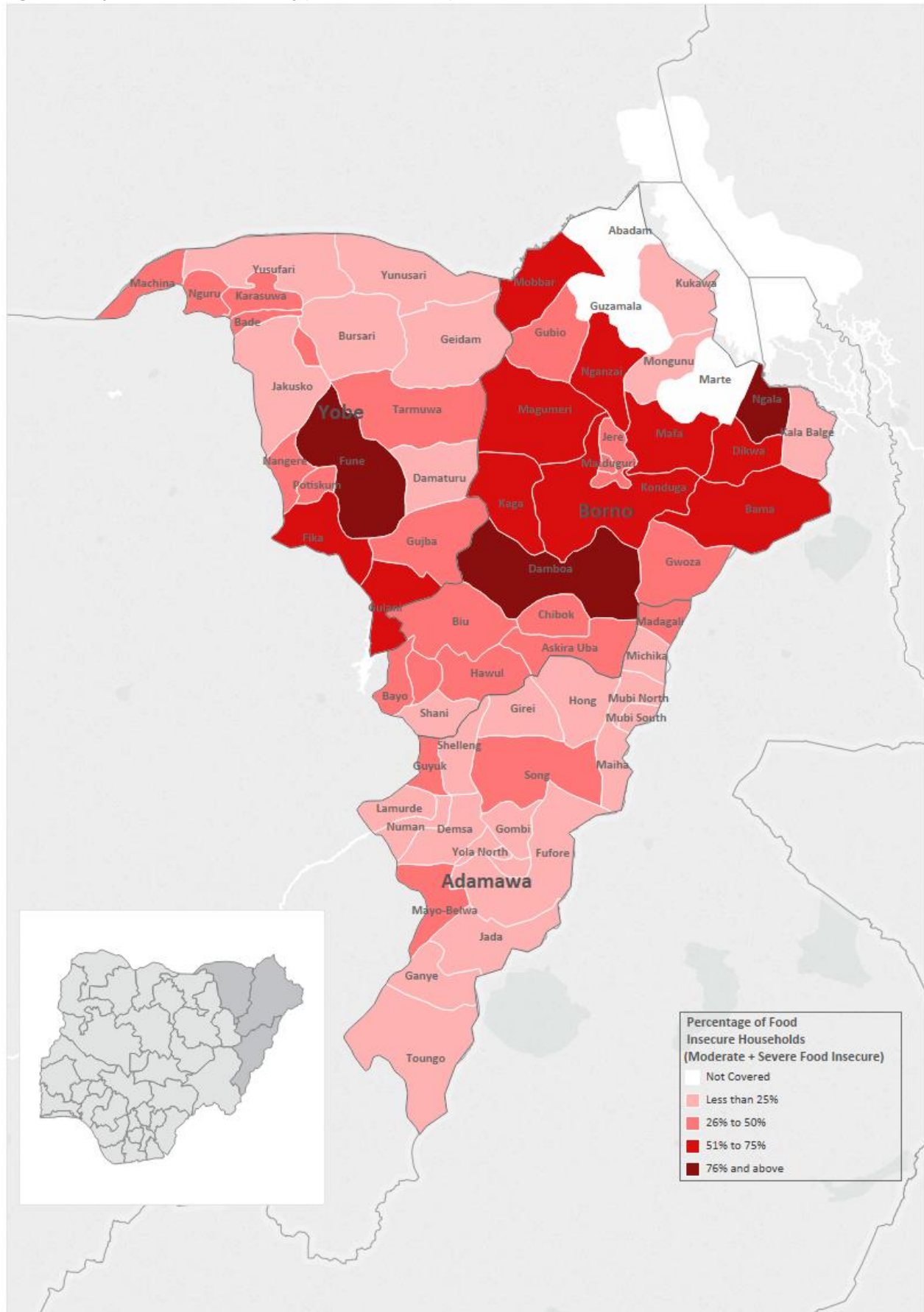
4.2 Food Consumption and Sources

4.2.1 Food Consumption

Household food consumption is measured through the Food Consumption Score (FCS), an indicator that measures the dietary diversity, energy, and micro and macro nutrient content of the food consumed by interviewed households over the seven-day period preceding the survey.

> **Food Consumption Score Cut-off Points**
>
> **0 – 21: Poor Food Consumption**
> **22 – 35: Borderline Food Consumption**
> **> 35: Acceptable Food Consumption**

Overall, 64.2 percent of the interviewed households across Adamawa State (80.8 percent), Yobe State (64.1 percent) and Borno State (48.9 percent) have acceptable food consumption (**Figure 30**). However, 10.7 percent of the households have poor food consumption, with majority of such households present in Borno (14.5 percent) and Yobe (13.4 percent) States compared to Adamawa State (4.5 percent). Most of these households with poor food consumption are based in the central (15.9 percent) and southern (14.7 percent) parts of Borno State as well as southern Yobe State (20.4 percent) (**Figure 31**). When compared to March 2017, the proportion of households with poor food consumption reduced by 12.3 percent and this trend was consistent across Borno, Adamawa and Yobe States where the proportion of households with poor food consumption reduced by 21.5 percent, 14.5 percent and 1.6 percent respectively. Households with borderline food consumption in Borno (36.6 percent), Yobe (22.5 percent) and Adamawa (14.7 percent) States are at risk of further deterioration in their food security situation in the event of shocks.

Figure 30 Food Consumption Group by State
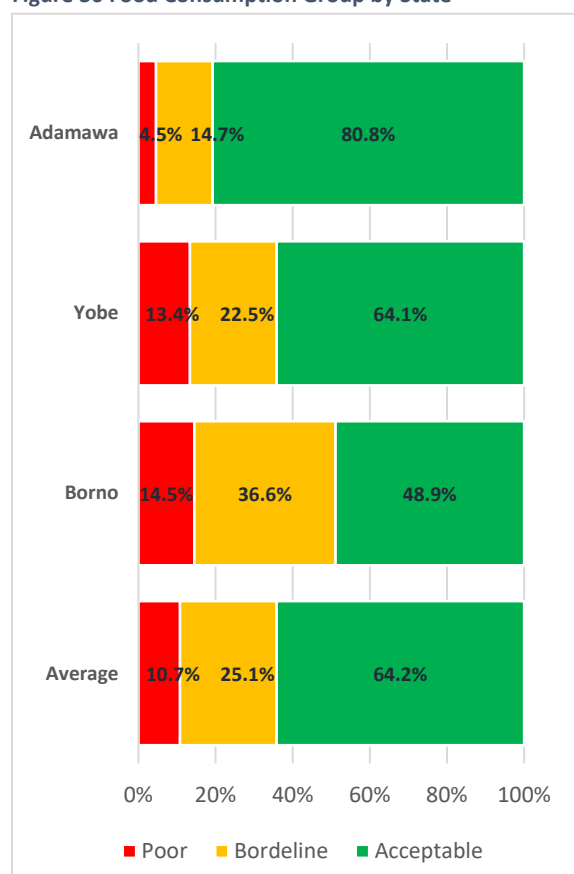
Figure 31 Food Consumption Group by Senatorial Zone
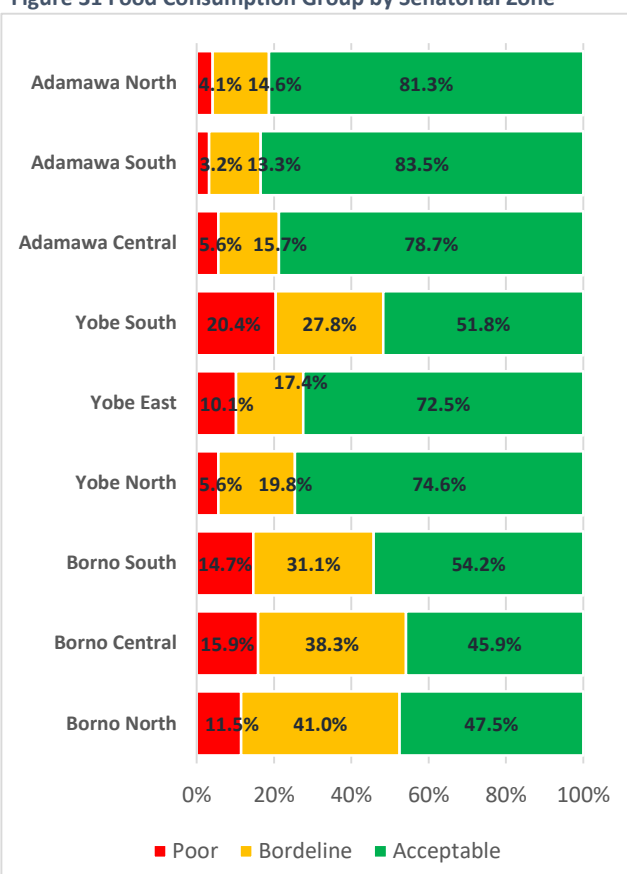
At the LGA level, over 65 percent of households in each of all 21 LGAs in Adamawa State have acceptable food consumption compared to nine (Geidam, Yunusari, Bursari, Yusufari, Jakusko, Damaturu, Karasuwa, Machina and Bade) out of 17 LGAs in Yobe State and only five (Kala Balge, Kukawa, Gwoza, Shani and Monguno) out of 24 LGAs in Borno State. The prevalence of poor food consumption is highest among households in Central Borno State (Ngala, Dikwa, Bama, Mafa, Damboa, Kaga and Magumeri) and Southern Yobe State (Fune, Gulani, Fika and Tarmua), most of which are currently witnessing limited livelihood opportunities and market functionality due to the ongoing hostilities. Moreover, households with borderline food consumption are most common in LGAs in Borno State which include Magumeri (64.5 percent), Kwaya Kusar (47.8 percent), Gubio (45.7 percent), Konduga (45.4 percent), Maiduguri (44.9 percent), Biu (44.8 percent), Mobbar (42.2 percent), Hawul (41.8 percent) and Kaga (41.6 percent) where deterioration of food consumption is imminent in the absence of food and cash-based interventions (*for LGA level analysis, refer to* **Figure** *32)*.

The prevalence of poor food consumption remains slightly higher among IDP and returnee households compared to their counterparts in host communities. Some 19.1 percent of IDP households in informal settlements, 19.0 percent of IDP households in camps, 18.8 percent of IDP households in host communities, and 17.5 percent of returnee households have poor food consumption compared to 9.4 percent of permanent resident households that were never displaced (**Figure** *33*). However, IDP households witnessed a reduction in the prevalence of poor food consumption between March and October 2017, potentially stemming from the scale-up of humanitarian assistance by the government, United Nations (UN) agencies and humanitarian actors. The prevalence of poor food consumption reduced by 24.0 percent, 16.2 percent and 2.9 percent among households living in IDP camps, host communities and informal settlements respectively.

Female-headed households tend to experience poor food consumption (14.8 percent) compared to 10.2 percent of their male counterparts. This trend was more pronounced in Borno State where the proportion of female-headed households with poor food consumption was 6.8 percent compared to 2.8 percent in Adamawa State and 0.2 percent in Yobe State (**Figure** *34*). At the LGA level, female-headed households in Adamawa State (Mubi North, Mubi South, Maiha, Lamurde, Numan, Mayo Balewa, Fufore, Song, Ganye, Jada and Guyuk) appear to better off as compared to Borno State (Dikwa, Mafa, Ngala, Mobbar and Kwaya Kusar) and Yobe State (Karasuwa and Geidam) as the prevalence of poor food consumption is higher among male-headed households.

Figure 32 Food Consumption Group by LGA

Figure 32 Food Consumption Group by LGA

Legend: ■ Acceptable ■ Bordeline ■ Poor

Figure 33 Food Consumption Group by Dwelling Type

Figure 33 Food Consumption Group by Dwelling Type

Dwelling Type	Acceptable	Bordeline	Poor
Host community/Permanent resident	68.9%	21.7%	9.4%
Returnees	54.6%	27.9%	17.5%
IDPs in informal settlement	47.9%	33.0%	19.1%
IDPs in Host community	47.6%	33.6%	18.8%
IDPs in Camps	42.2%	38.8%	19.0%

Legend: ■ Acceptable ■ Bordeline ■ Poor

Figure 34 Food Consumption Group by Status of Household Head

Figure 34 Food Consumption Group by Status of Household Head

		Acceptable	Bordeline	Poor
Adamawa	Male	81.4%	14.4%	4.2%
	Female	75.7%	17.3%	7.0%
Yobe	Male	64.6%	22.1%	13.4%
	Female	58.7%	27.7%	13.6%
Borno	Male	50.0%	36.6%	13.4%
	Female	42.9%	36.9%	20.2%
Average	Male	65.3%	24.5%	10.2%
	Female	56.1%	29.0%	14.8%

Legend: ■ Acceptable ■ Bordeline ■ Poor

4.2.1.1 Household meal consumption during the week of the assessment

Overall, over 90 percent of all households ate two meals or more the day before the assessment. Children appear to have had fewer meals the day preceding the assessment compared to other age groups. Some 6.7 percent of households surveyed has children aged 0 to 5 years that ate a maximum of one meal during the day preceding the assessment. Similarly, 4.7 percent of households with members aged 6 to 17 and 4.5 percent households with adults older than 18 years had one meal during the day preceding the assessment (**Figure 36**). There are more households with poorly fed children in Borno State (7.3 percent) and Adamawa State (8.0 percent) compared to Yobe State (4.8 percent). Moreover, female children across the surveyed households in BYA ate fewer meals on the day before the assessment compared to their male counterparts. Some 18.9 percent of households have female children aged 0 to 5 years that consumed a maximum of one meal during the day preceding the assessment compared to 9.5 percent of households with male children of the same age (**Figure 35**).

Figure 36 Percentage of households with children aged 0 - 5 years that consumed maximum of one meal the day before assessment by age group
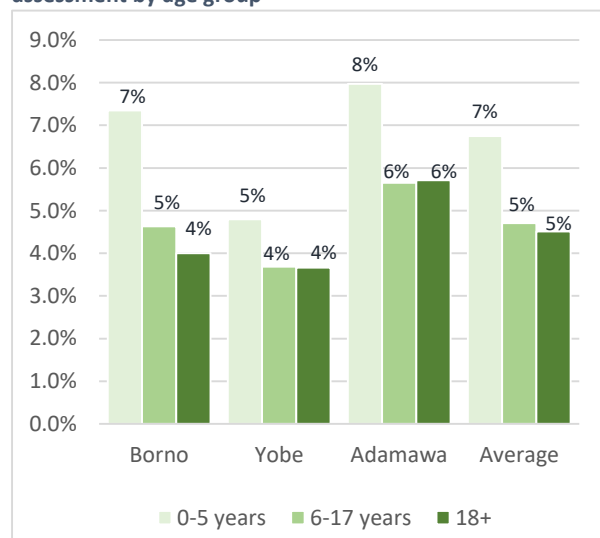
Figure 35 Percentage of households with children 0 - 5 years that consumed maximum of one meal the day before assessment by gender
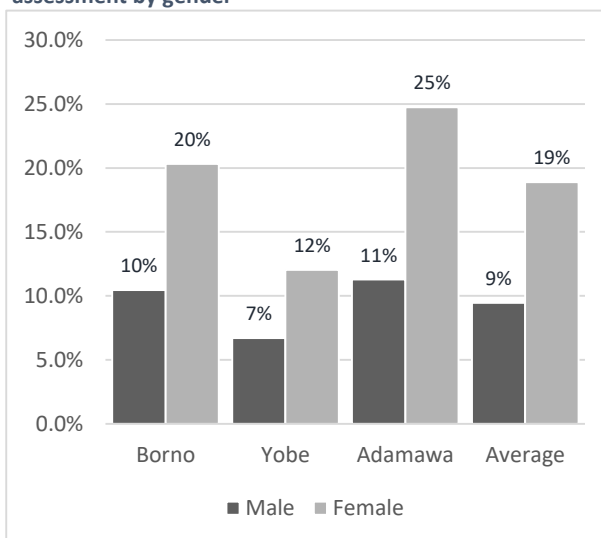
At the LGA level, the highest percentage of households with children that consumed a maximum of one meal during the day preceding the assessment are found in Damboa (41.4 percent), Ngala (29.5 percent) and Askira Uba (23.5 percent) in Borno State, Yunusari (22.1 percent) in Yobe State, and Numan (33.2 percent) and Hong (21.0 percent) in Adamawa State. Moreover, Damboa and Ngala LGAs in Borno State have a high proportion of households with older children/adolescents aged 6 to 17 years and adults older than 18 years that consumed a maximum of one meal during the day before the assessment, depicting wide spread poor food consumption across these LGAs and also, as evident in the high level of global food insecurity.

The consumption of starch-based foods and vegetables remain high with these food groups consumed on an average of six days across the surveyed households in BYA. The consumption of oil remains fair with an average consumption of five days across households in BYA, whereas there is a low consumption of pulses, sugar, meat/fish and diary, all of which are consumed for less than three days (**Table 5**). Despite the overall high consumption of starch-based foods and vegetables across households in BYA, the average number of days for which these two food groups are consumed is lowest among households in Ngala and Dikwa in Borno State, where starch-based foods are consumed for less than three days and vegetables for less than five days.

Table 5 Average number of days for consumption of food groups by state

	Average weekly consumption of food groups (*Number of days*)							
	Starch-based food	Pulses	Meat/Fish	Vegetables	Fruit	Dairy	Oil	Sugar
Borno	6.0	2.2	2.0	6.1	0.2	0.6	4.7	2.6
Yobe	6.0	2.9	2.3	6.3	0.2	1.7	4.8	2.9
Adamawa	6.3	2.5	4.2	6.3	0.5	1.6	4.8	3.1
Total	6.1	2.5	2.8	6.2	0.3	1.3	4.8	2.9

4.2.2 Sources of Food

Market purchase with cash is the predominant source of food in the three north eastern states, with 81.7 percent of households relying on this means for food access. At the state level households' reliance on markets is equally high across Borno State (83.2 percent), Yobe State (82.7 percent) and Adamawa State (80.0 percent). The second most important source of food in the three states is own cultivated food products (10.6 percent). Own-produced food item remains a key source of sustenance of food access for 14.3 percent of households in Adamawa State, 10.8 percent of households in Yobe State and 5.6 percent of households in Borno State. Moreover, food assistance remains an important source of food within households in Borno State (6.3 percent) compared to Yobe (0.9 percent) and Adamawa (0.3 percent) States (*Table 6*). Compared to February 2017, the percentage of households that rely on food assistance to meet their food needs in Borno State increased by 3.6 percent, largely due to the scale of humanitarian assistance by the Nigerian government and other humanitarian actors.

Table 6 Source of food by state

	Food Source									
	Own Production (Crop/animal)	Fishing/ Hunting	Gathering	Loan	Market Purchase (Cash)	Market Purchase (Credit)	Beg for food	Exchange labour/ items for food	Gift (food from family/	Food aid (NGO, Gov, WFP, Civil society)
Borno	5.6%	0.3%	0.2%	0.1%	83.2%	2.4%	0.3%	0.2%	1.4%	6.3%
Yobe	10.8%	0.2%	0.6%	0.1%	82.7%	3.2%	0.1%	0.2%	1.2%	0.9%
Adamawa	14.3%	0.5%	1.2%	0.0%	80.0%	1.8%	0.2%	0.2%	1.5%	0.3%
Total	10.6%	0.4%	0.7%	0.1%	81.7%	2.4%	0.2%	0.2%	1.4%	2.4%

Similar to trends at the state level, market purchase remains the most important source of food across majority of the LGAs in BYA, except for a few where own-cultivated food products and food aid reliance are more common. In Adamawa State where the ongoing conflict is restricted to only LGAs close to Borno State (Madagli and Mubi), own-cultivated food products constitute a major source of food in over 20 percent of households in LGAs like Toungo (39.9 percent), Maiha (35.6 percent), Guyuk (24.7 percent), Michika (23.0 percent), Gombi (22.3 percent), Mayo Balewa (21.6 percent), Shelleng (20.8 percent) including and Madagali (21.1 percent) which still has suburban areas that are inaccessible due to the ongoing armed conflict. In Yobe State, reliance own-cultivated food products is highest among households in Fune (25.8 percent) and Fika (25.7 percent), both of which have witnessed an influx of displaced households from Gulani and Gujba. Households in LGAs of Borno State that serve as major food baskets to the state and neighbouring cities are gradually returning to their homestead due to improved security situation as seen in the cases of Hawul (29.9 percent) and Askira Uba (19.5 percent), both of which have the highest proportion of households that rely on own cultivated food products. While commercial activities within such LGAs remain below pre-crisis level due to limited land access and security restrictions, households are gradually cultivating on small scale in order to ensure that their food needs are met. Moreover, food aid is an important source of food among households in Bama (53.5 percent), Gwoza (33.6 percent), Dikwa (33.2 percent) and Mobbar (27.3 percent), all of which are currently witnessing limited livelihood opportunities as households are restricted to the LGA capitals and urban areas due to heightened insecurity in their rural areas.

As expected, IDP households in camps (34.1 percent), which are often targeted for food aid by government and humanitarian actors are more reliant on food aid to meet their food needs compared to IDP households in host communities (7.3 percent), IDP households in informal settlements (3.6 percent), returnees (4.0 percent) and permanent residents (0.6 percent). Moreover, food aid remains a major source of food for 40.9 percent of IDP households residing in camps within Borno State compared to 23.4 percent and 8.8 percent of their counterparts in Yobe and Adamawa States respectively (**Table 7**).

Table 7 Household food source by dwelling type

		Food Source									
		Own Production (Crop/ animal)	Fishing/ Hunting	Gathering	Loan	Market Purchase (Cash)	Market Purchase (Credit)	Beg for food	Exchange labour/ items for food	Gift (food from family/ relatives)	Food aid (NGO, Gov, WFP, Civil society)
Borno	IDPs in Camps	0.9%	0.1%	0.2%	0.1%	54.0%	2.4%	0.2%	0.5%	0.8%	40.9%
	IDPs Iin Host Communities	2.2%	0.1%	0.5%	0.1%	78.9%	2.6%	0.5%	0.3%	2.7%	12.1%
	IDPs in Informal Settlement	4.9%	0.1%	0.3%	0.0%	84.3%	1.8%	0.3%	0.5%	1.7%	6.1%
	Host Communities	8.8%	0.4%	0.3%	0.1%	84.1%	2.8%	0.2%	0.2%	1.2%	2.0%
	Returnees	5.8%	0.2%	0.1%	0.2%	78.6%	3.8%	0.2%	0.4%	3.1%	7.5%
Yobe	IDPs in Camps	4.6%	0.0%	0.0%	0.0%	69.6%	1.4%	0.0%	0.0%	1.0%	23.4%
	IDPs Iin Host Communities	6.4%	0.3%	0.7%	0.1%	83.7%	3.6%	0.4%	0.5%	2.5%	1.8%
	IDPs in Informal Settlement	1.5%	0.0%	1.1%	0.0%	94.5%	2.3%	0.0%	0.0%	0.4%	0.2%
	Host Communities	13.2%	0.3%	0.6%	0.0%	81.6%	2.7%	0.0%	0.1%	0.9%	0.5%
	Returnees	5.7%	0.6%	0.1%	0.1%	86.0%	4.8%	0.0%	0.0%	2.2%	0.5%
Adamawa	IDPs in Camps	8.2%	0.1%	2.7%	0.0%	72.6%	1.1%	0.4%	2.0%	4.1%	8.8%
	IDPs Iin Host Communities	8.7%	0.5%	1.8%	0.0%	78.1%	2.3%	0.5%	0.8%	4.7%	2.7%
	IDPs in Informal Settlement	3.5%	0.0%	1.3%	0.0%	92.7%	0.8%	0.2%	0.2%	1.2%	0.2%
	Host Communities	16.3%	0.5%	0.9%	0.0%	79.7%	1.4%	0.0%	0.1%	0.9%	0.1%
	Returnees	17.0%	0.9%	1.7%	0.0%	70.0%	2.8%	1.3%	0.9%	5.1%	0.3%
Total	IDPs in Camps	2.5%	0.1%	0.6%	0.0%	58.4%	2.1%	0.2%	0.7%	1.3%	34.1%
	IDPs Iin Host Communities	4.8%	0.2%	0.9%	0.1%	79.8%	2.8%	0.5%	0.5%	3.2%	7.3%
	IDPs in Informal Settlement	4.0%	0.0%	0.7%	0.0%	88.1%	1.7%	0.2%	0.3%	1.3%	3.6%
	Host Communities	13.8%	0.4%	0.6%	0.1%	81.5%	1.9%	0.1%	0.1%	1.0%	0.6%
	Returnees	10.5%	0.5%	0.8%	0.1%	75.6%	3.4%	0.6%	0.6%	3.9%	4.0%

Despite the scale up of humanitarian assistance and increased territorial access due to improved security, the ongoing conflict in the northeast continues to limit agricultural production and land access which have directly contributed to the high level of market reliance to meet food needs of households. Considering this high level of market reliance, households are highly vulnerable to market shocks such as high food prices as the limited income opportunities affect their purchasing power of households and their capacity to meet daily food needs.

4.3 Household Economic Vulnerability

Based on the CARI, economic vulnerability of households is a significant indicator for food security as it measures the proportion of the monthly expenditure on food. Households that spend a very large share of their total expenditure on food tend to be vulnerable of food insecurity.

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Overall, 62.2 percent of households spent less than 65 percent of their total monthly income on food whereas 3 7.8 percent of households spent more than 65 percent of their monthly income on food. Of these vulnerable households that spend over 65 percent of the monthly income on food, almost one in every five (19.7 percent) households spend more than 75 percent of their total monthly income on food alone, leaving them highly vulnerable to shocks in the absence of an improvement in the economic situation within such households. More of such households are in Yobe State (21.8 percent) compared to Adamawa (19.5 percent) and Borno (16.0 percent) States (**Figure 37**). Agricultural households in Yobe State witnessed a slight reduction in their agricultural produce due to extended dry spells and pest infestation, which consequently reduced the income of such households and forced them to rely on markets to meet their food needs[11].

Figure 37 Household expenditure on food by state
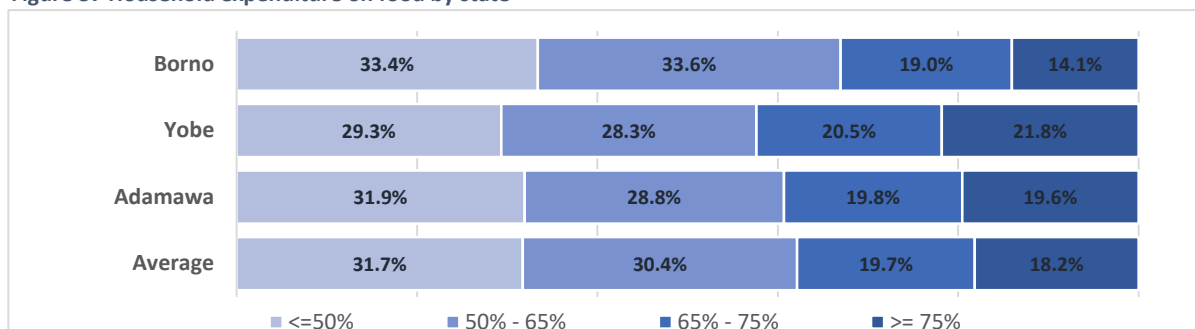
Among the LGAs, the highest proportion of households that spend more than 75 percent of their monthly income on food are located in Gwoza (41.9 percent), Mobbar (33.0 percent), Bayo (30.2 percent), Konduga (29.1 percent) and Ngala (26.5 percent) in Borno State, Machina (38.3 percent), Fune (37.4 percent), Gulani (37.1 percent), Yunusari (32.8 percent) and Gujba (29.1 percent) in Yobe State, and Mubi North (43.8 percent), Mayo Balewa (38.2 percent), Gombi (33.6 percent), Guyuk (29.6 percent) and Ganye (28.7 percent) in Adamawa State (*for LGA level analysis, refer to* **Figure 38**)

There are slightly more IDP households in camps (25.1 percent) and informal settlements (21.2 percent) that spent more than 75 percent of their income on food compared to their counterparts in host communities (18.7 percent), permanent residents (19.4 percent) and returnees (17.4 percent), which is potentially due to better livelihood opportunities among permanent residents, returnees and host communities. Nonetheless, over half (50 percent) of IDP households spent less than 65 percent of their total income on food, and as such, have tangible resources left to cater for their non-food needs (**Figure 39**). When disaggregated by the gender of the head of household, there are slightly more female-headed households (20.3 percent) that expend more than 75 percent of their income on food compared to 17.9 percent of male-headed households. Specifically in Borno State, female headed households are found to be more economically vulnerable, with 21.3 percent expending more than 75 percent of their income on food compared to only 12.7 percent of their male counterparts (**Figure 40**).

The overall proportion of households that spend more than 75 percent of their income on food remains fairly high at 19.4 percent (about one in every five households) and these households are highly vulnerable to food insecurity when exposed to market shocks such as price increase, which reduces their capacity to sustain the purchase of food items.

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[11] Persisting conflict in the northeast continues to drive severe food insecurity, FEWS NET, November 2017. http://www.fews.net/west-africa/nigeria

Figure 38 Household Food Expenditure by LGA

Legend: ■ <=50% ■ 50% - 65% ■ 65% - 75% ■ >= 75%

X-axis (Borno): Kala Balge, Askira Uba, Dikwa, Kwaya Kusar, Mafa, Biu, Hawul, Ngala, Mongunu, Bama, Chibok, Kaga, Bayo, Damboa, Jere, Kukawa, Maiduguri, Konduga, Gubio, Shani, Mobbar, Nganzai, Magumeri, Gwoza

X-axis (Yobe): Potiskum, Geidam, Nangere, Nguru, Tarmuwa, Damaturu, Karasuwa, Fika, Gujba, Bade, Bursari, Machina, Jakusko, Yunusari, Fune, Yusufari, Gulani

X-axis (Adamawa): Yola North, Yola South, Michika, Lamurde, Maiha, Demsa, Numan, Hong, Girei, Shelleng, Song, Fufore, Guyuk, Jada, Madagali, Mubi South, Toungo, Ganye, Mayo-Belwa, Mubi North, Gombi

Figure 39 Household Food Expenditure by Dwelling

Dwelling	<=50%	50% - 65%	65% - 75%	>= 75%
Returnees	34.7%	30.3%	17.7%	17.4%
Host community/Permanent resident	30.9%	30.0%	19.7%	19.4%
IDPs in informal settlement	27.2%	28.9%	22.6%	21.2%
IDPs in Host community	31.0%	31.0%	19.3%	18.7%
IDPs in Camps	26.9%	26.5%	21.5%	25.1%

Legend: ■ <=50% ■ 50% - 65% ■ 65% - 75% ■ >= 75%
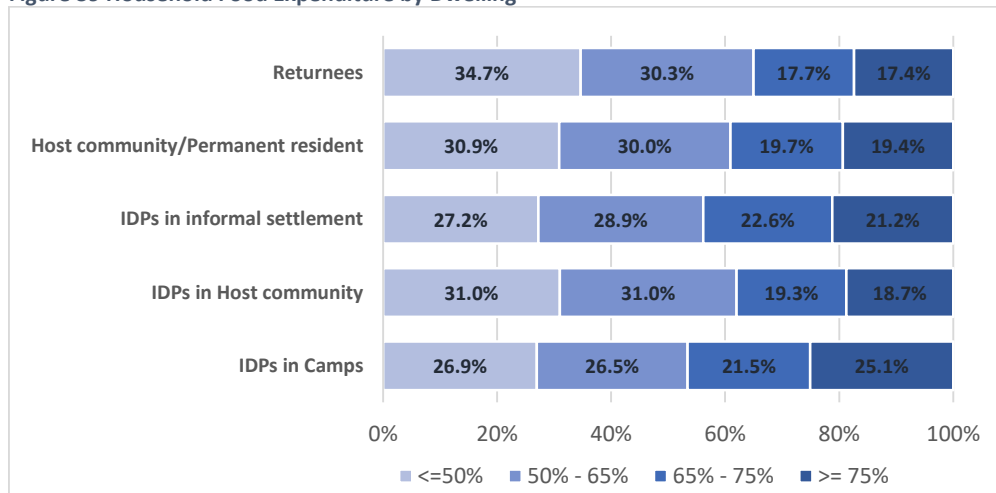
Figure 40 Household Food Expenditure by Status of Head of Household

Region	Sex	<=50%	50% - 65%	65% - 75%	>= 75%
Adamawa	Male	30.8%	29.8%	19.7%	19.6%
Adamawa	Female	31.4%	30.5%	19.9%	18.3%
Yobe	Male	25.8%	28.4%	22.0%	23.8%
Yobe	Female	30.5%	27.7%	18.3%	23.5%
Borno	Male	35.9%	31.7%	17.8%	14.6%
Borno	Female	28.7%	29.0%	18.9%	23.4%
Average	Male	31.1%	30.1%	19.7%	19.1%
Average	Female	29.9%	29.3%	19.1%	21.7%

Legend: ■ <=50% ■ 50% - 65% ■ 65% - 75% ■ >= 75%

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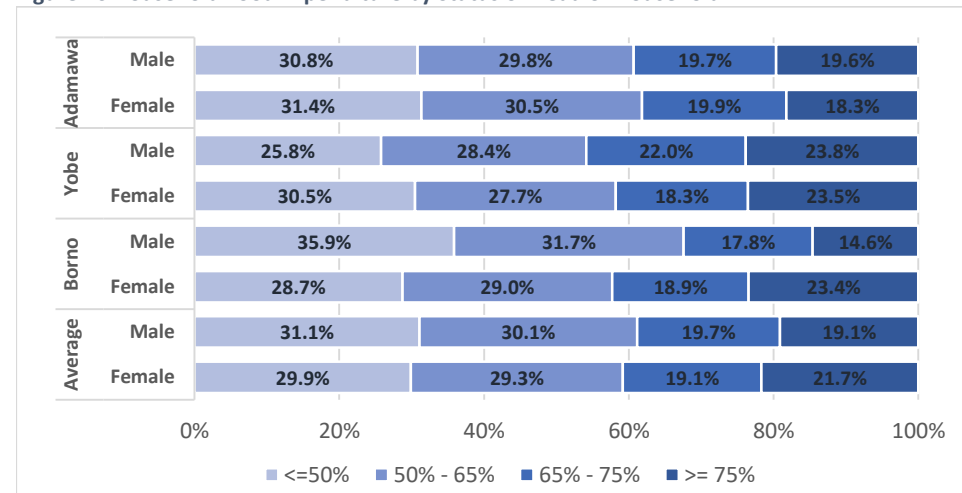
4.4 Household Coping Strategies

4.4.1 Food Based Coping Strategies

When households are exposed to shock or threat in the phase of food shortage, they deploy coping strategies to mitigate the impact of such shock in order to ensure that their basic food needs are met. The reduced coping strategy index (rCSI) measures the use of five food consumption based alimentary coping behaviours that households leverage to sustain food access during the seven days preceding the assessment. A high rCSI depicts persistent reliance on coping strategies to deal with scarcity of food or money required to buy food[12].

Overall, more than half (59.1 percent) of households experienced difficulty in accessing food within seven days preceding the assessment with Yobe State having the highest of such households (65.0 percent), than Adamawa (57.1 percent) and Borno (56.3 percent) States. The lower proportion of households that experienced food shortages in Borno and Adamawa suggests better food accessibility within both states compared to Yobe. Moreover, 48.2 percent of the households that encountered food shortage within the seven days preceding the assessment used one or more of the five food based coping strategies to meet their food needs in Borno (46.6 percent), Yobe (53.4 percent) and Adamawa (45.5 percent). The use of food-based coping strategies is more severe in Adamawa (rCSI is 9.96) and Borno (rCSI of 9.58) as compared to Yobe (rCIS of 8.38) (**Figure 42**). By implication, the usage of food based coping strategies is more persistent in Adamawa and Borno. Households mostly rely on the consumption of less preferred or less expensive food when confronted with food shortage (53.8 percent) (**Figure 41**).

Figure 42 Mean Reduced Coping Strategy Index by State

Figure 41 Usage of Food Based Coping Strategies by State

At the LGA level, more households are found to experience difficulties in accessing food during seven days preceding the assessment in Yobe State compared to Borno and Adamawa States. In Yobe State, over 60 percent of households encountered food access challenges in Potiskum (82.9 percent), Karasuwa (78.5 percent), Nguru (74.5 percent), Geidam (74.0 percent), Jakukso (73.6 percent), Gujba (70.4 percent), Tarmua (68.3 percent), Fune (63.4 percent), Bursari (62.0 percent), Bade (61.5 percent) and Nangere (61.5 percent). On the contrary, only Mubi North (87.6 percent) and Madagli (82.5 percent) LGAs in Adamawa State, both of which are worst affected by the ongoing hostilities in the northeast due to their proximity to Borno State, have a significant proportion of households that e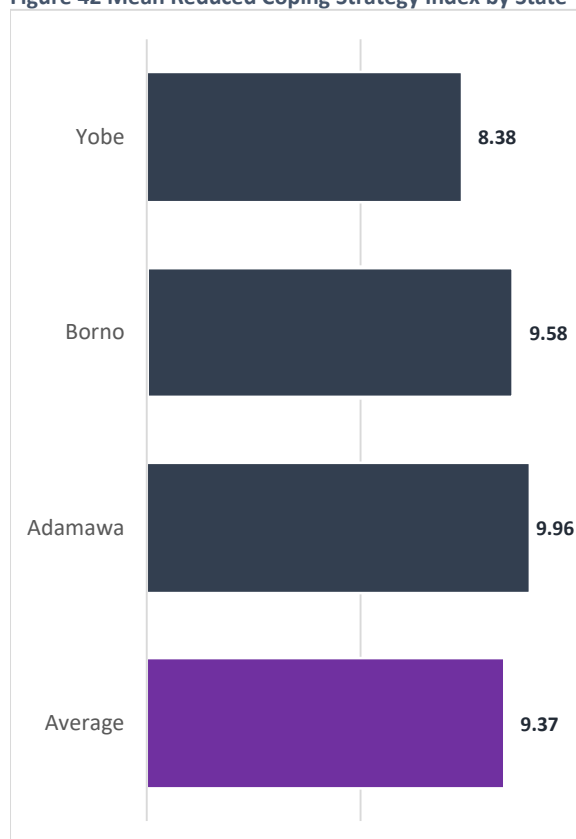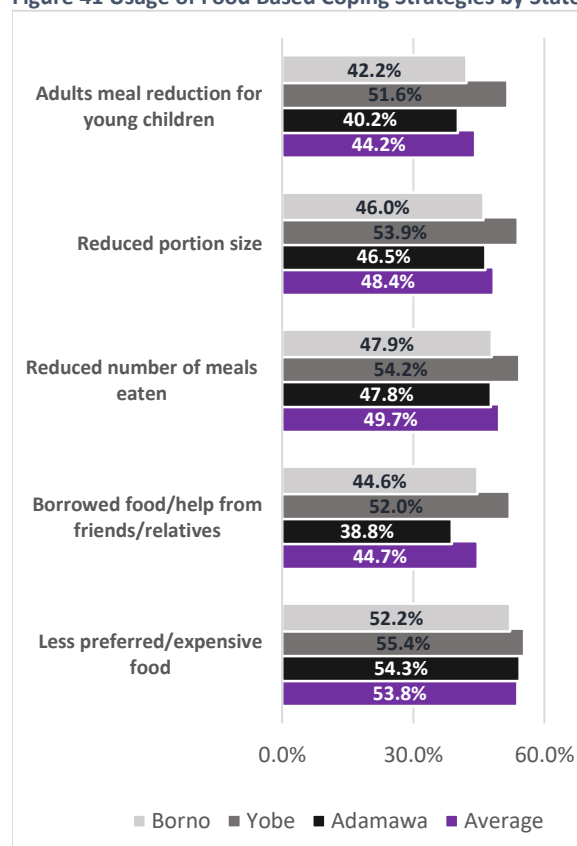xperienced difficulties in accessing food during the week that preceded the assessment. Moreover, over 60 percent of households experienced difficulties in accessing food in other LGAs in Adamawa State such as Jada (71.7 percent), Song (70.6 percent), Girei (65.0 percent), Shelleng (64.7 percent), Ganye (63.3 percent) and Mubi South (61.9 percent). Except for these eight LGAs, more than 40 percent of all households within the remaining 13 LGAs in Adamawa State did not experience food shortage during the week that preceded the assessment. In Borno State, Kukawa (81.3 percent), Bama (77.1 percent), Nganzai (76.7 percent), Mafa (75.3 percent), Maiduguri (66.4 percent), Gubio (66.4 percent), Chibok (65.7 percent), Jere (63.2 percent), Konduga (62.0 percent), Biu (61.7 percent) and Kaga (61.5 percent) are the LGAs where over 60 percent of households experienced difficulties with food access.

Over 50 percent of households have used one or more of the five food based coping strategies in 11 out of 24 LGAs in Borno State, in 8 out of 17 LGAs in Yobe State and in 8 out of 21 LGAs in Adamawa State. In Borno State, Mafa (67.8 percent), Kukawa (67.4 percent), Bama (59.9 percent), Gubio (59.9 percent), Nganzai (59.7 percent), Maiduguri (58.4 percent), Biu (58.2 percent), Mongunu (51.9 percent), Jere (51.4 percent), Askira Uba (51.1 percent) and Konduga (50.4 percent) all fall within this category of LGAs where over half of all households have used one or more food based coping strategies. In Yobe, Potiskum (76.1 percent), Karasuwa (67.9 percent), Jakusko (65.8 percent), Geidam (65.5 percent), Gujba (64.4 percent), Tarmua (59.5 percent), Bade (57.8 percent) and Bursari (53.0 percent) have the highest proportion of households using food based coping strategies. In Adamawa, the eight LGAs affected are Mubi North (65.7 percent), Madagali (61.1 percent), Girei (57.8 percent), Jada (55.3 percent), Mubi South (54.7 percent), Shelleng (54.0 percent), Demsa (54.0 percent) and Song (52.4 percent).

The highest mean rCSI is found in Mafa (18.98), Nganzai (17.14) and Konduga (16.30), which depicts the severity in the persistent usage of food based coping strategies among households within these LGAs. Also, other LGAs with a relatively high rCSI are Girei (16.23), Yola South (13.24), Shelleng (12.45), Demsa (12.13) and Madagali (11.84) in Adamawa State, Maiduguri (14.81), Dikwa (10.98), Mongunu (10.25), Biu (10.19) and Jere (10.17) in Borno State, and Potiskum (11.81), Geidam (11.17), Karasuwa (10.41), Tarmua (10.14) and Gujba (10.03) in Yobe State (**Figure *43***).

The mean rCSI for IDPs in host communities (12.71) and informal settlements (10.54) is higher compared to their counterparts living in formal camps (8.81) as well as permanent residents (8.43) and returnees (9.18). Formal camps are better targeted for humanitarian assistance while both permanent residents and returnees have better livelihood opportunities due to their familiarity with the locality (*Figure 45*). This trend is consistent in Borno, which currently hosts the largest number of IDPs in the northeast[13]. Moreover, female-headed households (9.82) are more engaged in the use of severe coping strategies compared to their male counterparts (9.31), a trend which was consistent in Adamawa and Yobe States. However, the use of coping strategies was slightly more pronounced in male-headed households (9.65) compared to their female counterparts (9.17) in Borno State *(Figure 44).*

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[13] Displacement Tracking Matrix XIX, IOM.
https://reliefweb.int/sites/reliefweb.int/files/resources/01%20DTM%20Nigeria%20Round%20XIX%20Report%20September%202017_0.pdf

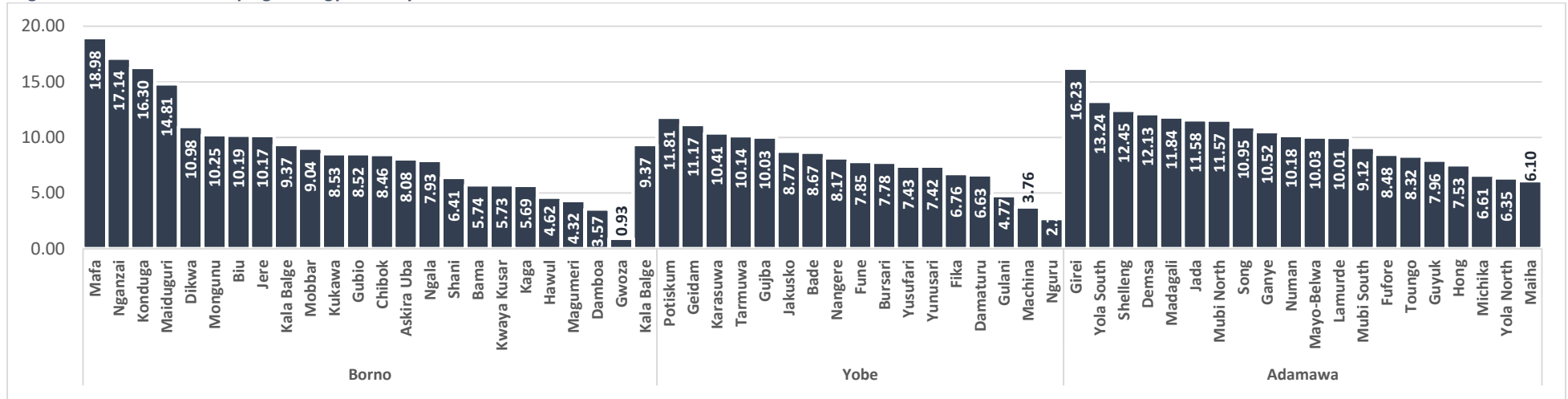**Figure 43 Mean Reduced Coping Strategy Index by LGA**

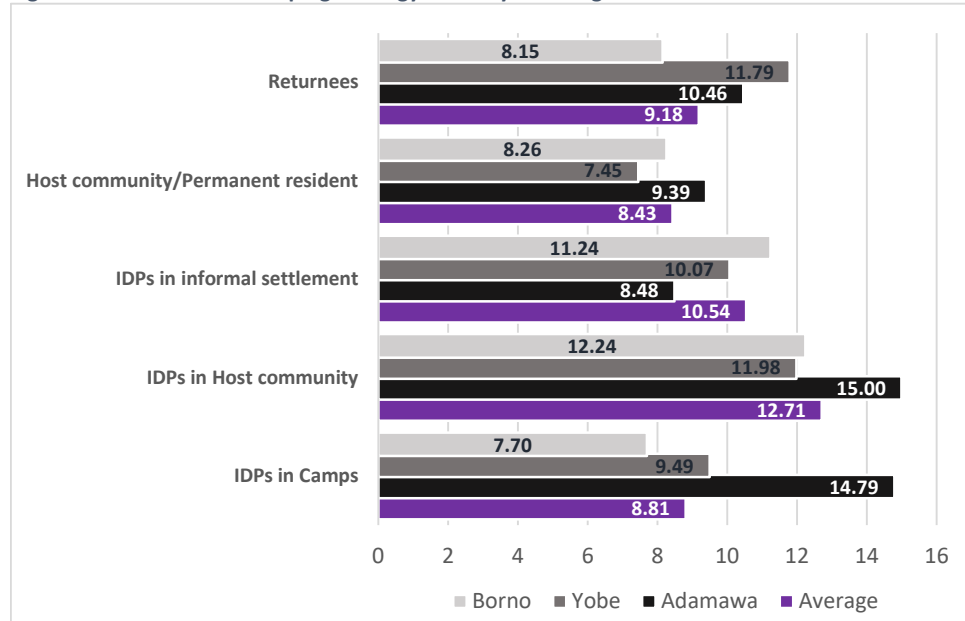**Figure 45 Mean Reduced Coping Strategy Index by Dwelling**

Figure 44 Mean Reduced Coping Strategy Index by Sex of Household Head
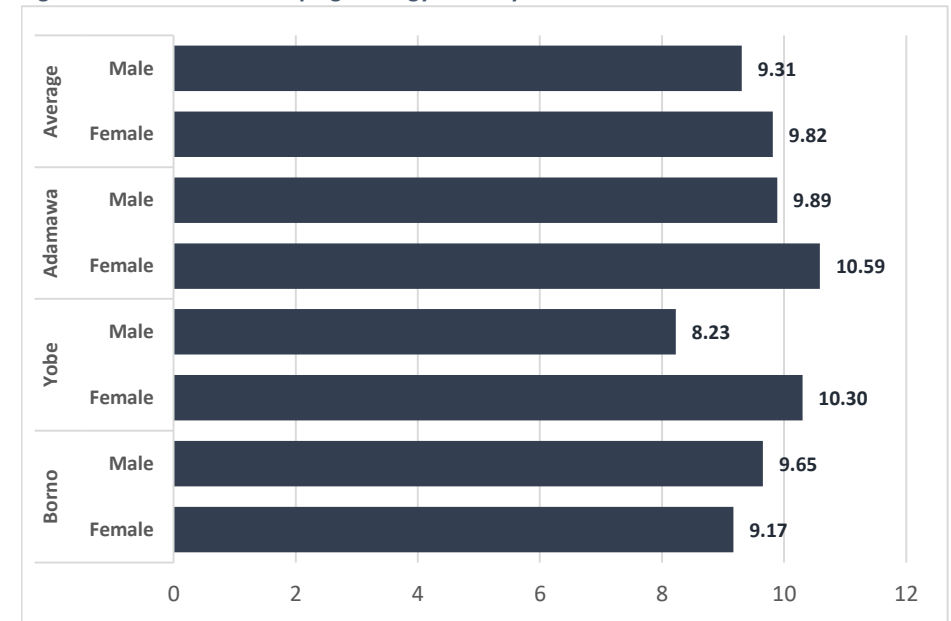
4.4.2 Livelihood Based Coping Strategies

Livelihood based coping strategies depict the status of the households' livelihood stress and insecurity. Through this indicator, the long term coping ability of households and their capacity to produce in future can be assessed. The livelihood coping strategy measures the livelihood stress and asset depletion during the 30 days prior to survey[14]. Respondents are classified into four categories, following the severity of the behaviours adopted vis-à-vis the family assets. Households adopt stress, crisis or emergency coping strategies, or no strategies at all with the most affected households adopting crisis and emergency coping strategies.

The overall reliance on livelihood coping strategies is relatively high as 78.1 percent of the entire households surveyed have relied on one or more of these strategies in order to meet their food needs within 30 days that preceded the assessment. The highest proportion of households that rely on one or more of such strategies is found in Yobe State (82.9 percent), followed by Borno State (76.8 percent) and Adamawa State (75.7 percent) (**Figure *46***).

While 21.9 percent of the households did not adopt any coping strategy, **emergency coping strategies** are most commonly used to deal with food shortage across households (28.1 percent) that experienced food shortage and this is consistent across Borno (28.3 percent), Yobe (29.1 percent) and Adamawa (27.1 percent) States. Among these households that deployed emergency coping strategies, begging (20.9 percent), reduction of expense on agricultural input (22.1 percent) and sale of productive animals (13.4 percent) are most pervasive across households in BYA. Additionally, sale of assets such as land or house is slightly higher among households in Yobe State (11.5 percent) compared to Borno (7.0 percent) and Adamawa (6.8 percent) States (**Table *8***). Reliance on these strategies is particularly worrisome due their negative impact on the future productivity of the affected households, thus making it more difficult to reverse.

Similarly, 24.9 percent of the households used **crisis coping strategies** and more of such households are found in Yobe State (30.5 percent) compared to Adamawa (25.0 percent) and Borno (20.7 percent) States. The most common crisis coping strategy utilized by the affected households is the reduction of expense on health and education (32.0 percent), which is more pronounced within households in Yobe (43.7 percent) and Borno (30.1 percent) States compared to Adamawa State (25.0 percent) (**Table *8***). The reliance of households on these sort of coping strategies jeopardises their ability to work and produce in future provided the situation persists.

Moreover, 25.1 percent of the households deployed **stress coping strategies** across Borno State (27.8 percent), Adamawa State (23.7 percent) and Yobe State (23.3 percent) within 30 days that preceded the assessment. Most frequently, such households borrowed money to buy food (56.6 percent), purchased food on credit or borrowed food (51.5 percent) or spent their savings in order to buy food (25.2 percent), all of which increases their burden of debts and deepens the economic vulnerability of such households (**Table *8***).

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[14] For more information on Livelihood Coping strategies indicator refer to the CARI technical guidance note: https://resources.vam.wfp.org/sites/default/files/CARI%20Guidance_2nd%20ed.pdf

Figure 46 Livelihood Coping Strategies by State

Figure 46 Livelihood Coping Strategies by State
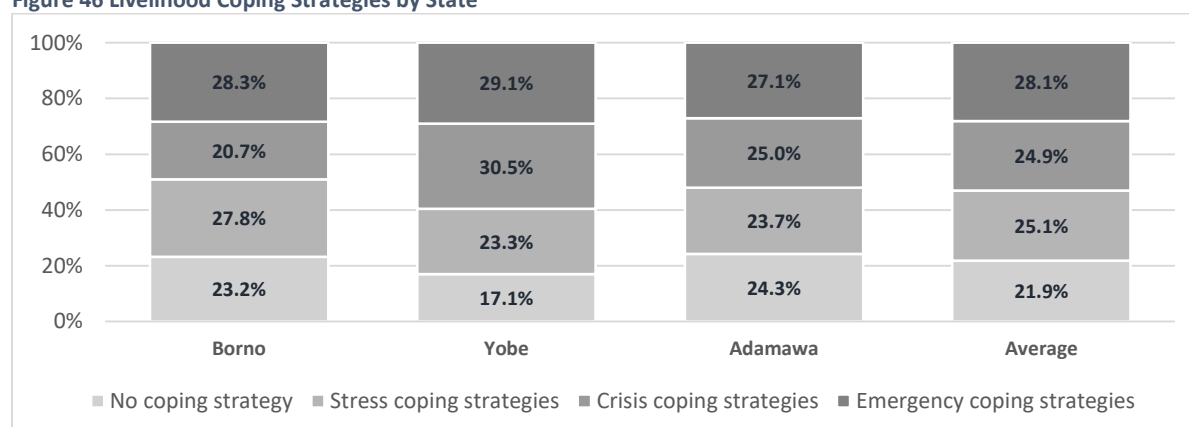
Table 8 Types of Livelihood Coping Strategy by State

Livelihood Coping Strategies		Borno	Yobe	Adamawa	Average
Stress	Sale of household asset	15.3%	22.4%	14.9%	17.2%
	Credit purchase/borrow food	51.3%	59.3%	45.1%	51.5%
	Spent savings	18.9%	17.5%	38.2%	25.2%
	Borrow money to buy food	56.6%	65.6%	49.1%	56.6%
Crisis	Sale of productive asset	10.3%	15.1%	11.3%	12.0%
	Reduced health/education expense	25.0%	43.7%	30.1%	32.0%
	Withdrew children from school	13.3%	17.3%	17.1%	15.8%
Emergency	Sold house/land	7.0%	11.5%	6.8%	8.2%
	Begged	21.2%	20.3%	21.0%	20.9%
	Engaged in illegal income activities	3.0%	1.5%	1.5%	2.1%
	Unsustainable sale of productive animals	6.4%	19.4%	15.9%	13.4%
	Reduced expense on agricultural input	14.2%	29.0%	24.9%	22.1%

At the LGA level, the highest concentration of households that are resorting to emergency coping strategies are found within Madagali (74.0 percent) in Adamawa State, Bama (67.4 percent), Monguno (45.4 percent), Mafa (43.2 percent) and Damboa (42.0 percent) in Borno State and Karasuwa (51.5 percent), Bursari (43.3 percent), Potiskum (43.2 percent) and Gujba (40.2 percent) in Yobe State (**Figure 47**). Livelihood opportunities are currently limited in some areas within these highlighted LGAs due to the ongoing hostilities in the northeast which has contributed to accessibility constraints for the government and humanitarian actors. There are more households in Karasuwa, Bursari and Gujba in Yobe State that engaged in the sale of productive female animals and reduced their expense on agricultural input in order to meet their food needs within 30 days that preceded the assessment compared to LGAs in Borno and Adamawa States. Moreover, begging remains a key coping strategy in Bama (51.9 percent) and Madagali (55.4 percent). Engagement in illegal income activities such as theft and prostitution are fairly prominent in Bama (14.6 percent), Bursari (8.7 percent) and Mafa (8.6 percent), which depicts that severity of food insecurity within households.

The deployment of crisis coping strategies such as the sale of productive asset and withdrawal of children from school is highest among households in Askira Uba (52.1 percent), Gubio (32.0 percent), Konduga (31.2 percent) and Chibok (30.7 percent) in Borno State, Tarmua (44.4 percent), Gujba (38.6 percent), Potiskum (38.4 percent), Geidam (34.9 percent), Jakusko (34.0 percent), Nangere (34.0 percent), Bade (33.0 percent), Bursari (32.3 percent) and Karasuwa (31.8 percent) in Yobe State, and Mayo Balewa (43.8 percent), Numan (33.3 percent), Song (33.2 percent) and Michika (31.6 percent) in Adamawa State (**Figure 47**). On the contrary, the use of stress coping strategies such as the depletion of savings and sale of

assets is more pronounced in Jere (47.6 percent), Dikwa (44.2 percent), Bayo (43.8 percent), Kaga (39.1 percent), Nganzai (37.8 percent), Kukawa (36.9 percent) and Damboa (35.0 percent) in Borno State, Yunusari (48.4 percent), Damaturu (36.1 percent) and Jakusko (35.3 percent) in Yobe State, and Jada (46.0 percent) and Lamurde (34.7 percent) in Adamawa State (**Figure *47***).

Findings from disaggregation by household residential status show that returnees (47.6 percent), IDP households in camps (43.7 percent), IDP households in informal settlements (42.7 percent) rely more on emergency coping strategies, the most severe of all livelihood coping strategies, which leaves them highly vulnerable to future shocks and threats compared to households that are permanent residents (23.8 percent) and IDPs living in host communities (34.0 percent). This trend is consistent in Borno State where permanent residents, who often have better livelihood opportunities, are found to be less reliant on emergency coping strategies (22.5 percent) compared to IDP households in camps (45.6 percent), IDP households in informal settlements (41.5 percent), returnees (42.2 percent) and IDP households in host communities (26.7 percent). In Yobe State, there are also fewer permanent residents relying on emergency coping strategies compared to IDPs and returnees. However, the use of such strategies is more prevalent among IDP households in host communities (41.2 percent) compared to their counterparts in camps (29.0 percent) and informal settlements (31.0 percent) (**Figure *49***).

Moreover, there are more female headed households (37.7 percent) that employ emergency coping strategies compared to their male headed counterparts (26.8 percent), a trend which was consistent across BYA. The use of emergency coping strategies by female-headed households stands at 38.4 percent, 39.8 percent and 35.3 percent in Borno, Yobe and Adamawa States respectively compared to 26.4 percent, 28.2 percent and 29.0 percent of their male counterparts in the same order (**Figure *48***). Reliance on these coping strategies jeopardizes the future productivity of female headed household and enhances their vulnerability to food insecurity.

Figure 47 Livelihood Based Coping Strategies by LGA

Legend: No coping strategy · Stress coping strategies · Crisis coping strategies · Emergency coping strategies
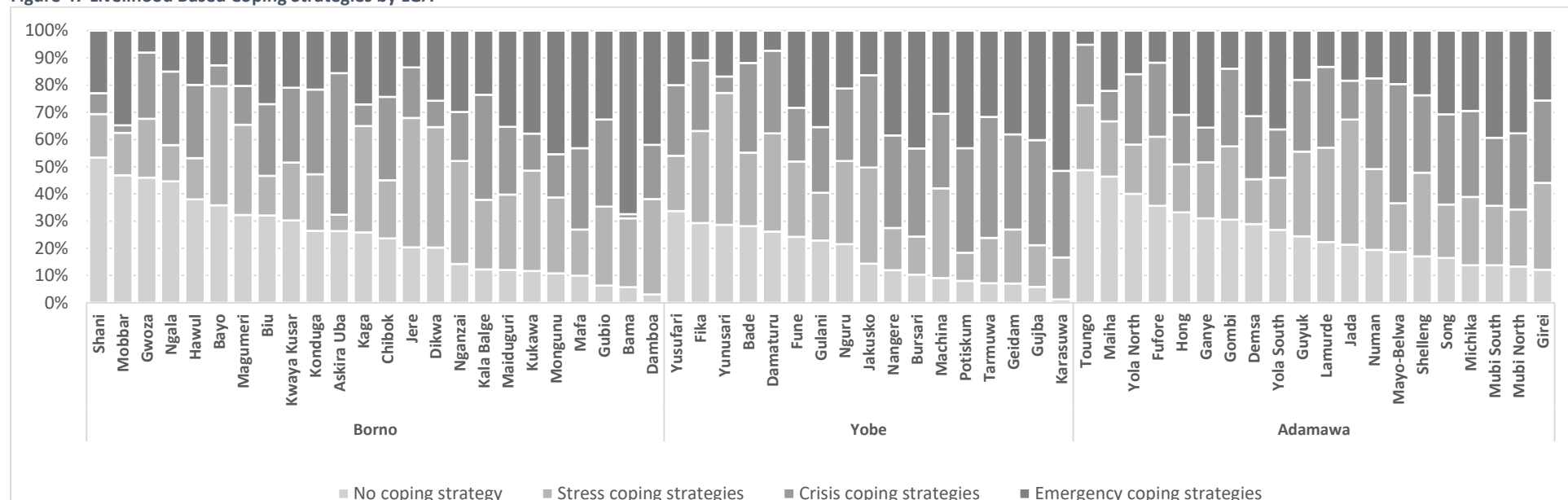
Figure 49 Livelihood Coping Strategies by Dwelling

Dwelling	No coping strategy	Stress coping strategies	Crisis coping strategies	Emergency coping strategies
Returnees	12.6%	23.1%	16.7%	47.6%
Host community/Permanent resident	24.2%	25.2%	26.8%	23.8%
IDPs in informal settlement	19.1%	24.5%	13.7%	42.7%
IDPs in Host community	16.9%	26.9%	22.2%	34.0%
IDPs in Camps	19.5%	25.1%	11.6%	43.7%

Legend: No coping strategy · Stress coping strategies · Crisis coping strategies · Emergency coping strategies

Figure 48 Livelihood Coping Strategies by Sex of Head of Household

	Sex	No coping strategy	Stress coping strategies	Crisis coping strategies	Emergency coping strategies
Adamawa	Male	24.7%	23.9%	25.3%	26.0%
Adamawa	Female	20.8%	21.6%	22.2%	35.3%
Yobe	Male	17.2%	23.4%	31.2%	28.2%
Yobe	Female	16.1%	22.4%	21.7%	39.8%
Borno	Male	23.5%	28.7%	21.5%	26.4%
Borno	Female	21.9%	23.3%	16.4%	38.4%
Average	Male	22.0%	25.5%	25.7%	26.8%
Average	Female	20.6%	22.6%	19.2%	37.7%

Legend: No coping strategy · Stress coping strategies · Crisis coping strategies · Emergency coping strategies

4.5 Characteristics and Profile of Food Insecure Households

4.5.1 Food Security by Livelihoods

The livelihood strategy employed by a household plays a significant role in determining their level of food security and socio-economic status.

In the three states, majority of households depend more on agriculture as their main way to access income and food. However, the opportunities to access to land

Creation of livelihood groups:
Households that share similar livelihood strategies tend to be affected by the same shocks or risk factors. The livelihoods group to which a household belongs is therefore an important determinant of food security outcomes. Livelihood grouping is achieved through "a cluster analysis preceded by principal components analysis (PCA)." Primary livelihood strategies can be recognized through the PCA. Livelihood groups are then composed based on their reliance on various strategies.

are more important in Adamawa and Yobe States. In Borno State, households engage in precarious income earning activities such as temporary jobs and begging (**Figure 50**).

Figure 50 Livelihood Group by State
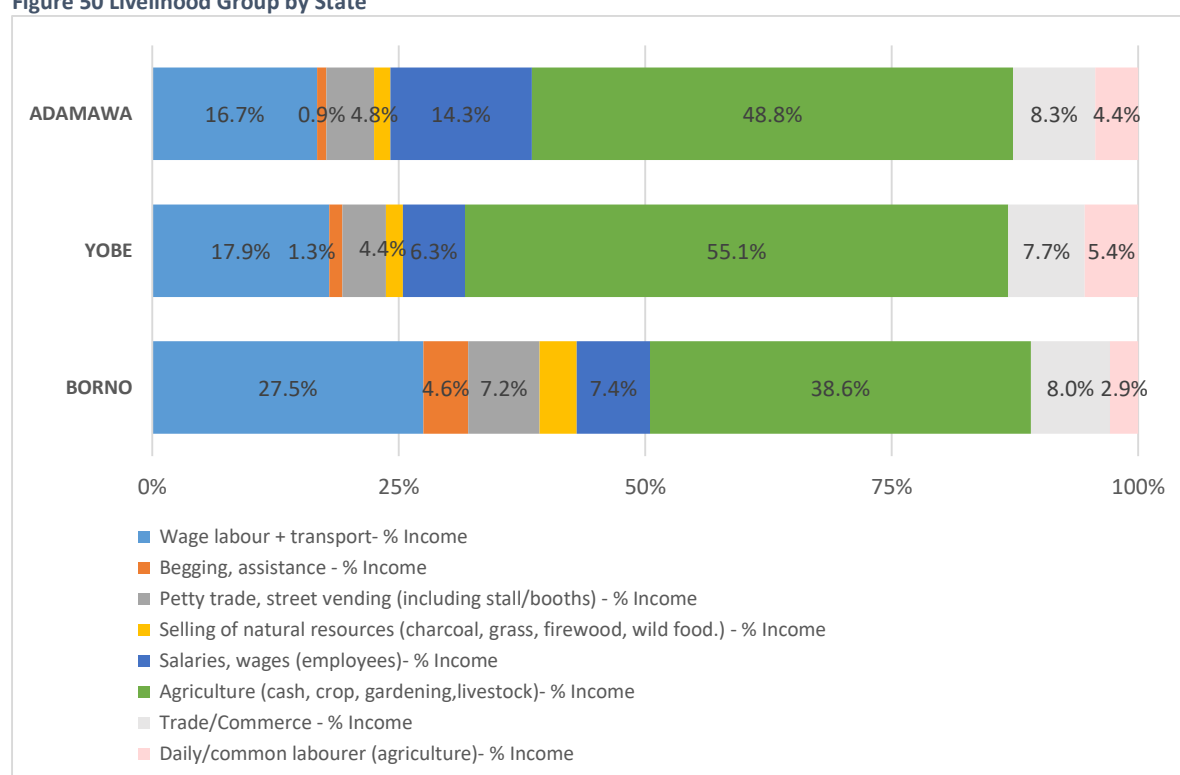
Food insecurity is highest among households adopting begging as their main livelihood activity (56.9 percent), followed by those who live primarily on gathering and selling natural resources and wild food (43.5 percent) and daily/common labour (39.6 percent). In contrast, households engaged in salaried work and wage labour (84.4 percent) and commerce (74.9 percent) are more food secure (**Figure 51**).

Figure 51 Food Insecurity by Livelihood Type

Figure 51 Food Insecurity by Livelihood Type

4.5.2 Food security by education level of the household's head

To gain an understanding of the interrelationship between education and food security, we explored the impact of the educational level of the household head on the household's level of food security. Households headed by an individual with no previous education (cannot read and write in any language) were found to have the highest rate of food insecurity (39.5 percent) (**Figure 52**).

Figure 52 Food Security by Level of Education of Household Head

Figure 52 Food Security by Level of Education of Household Head
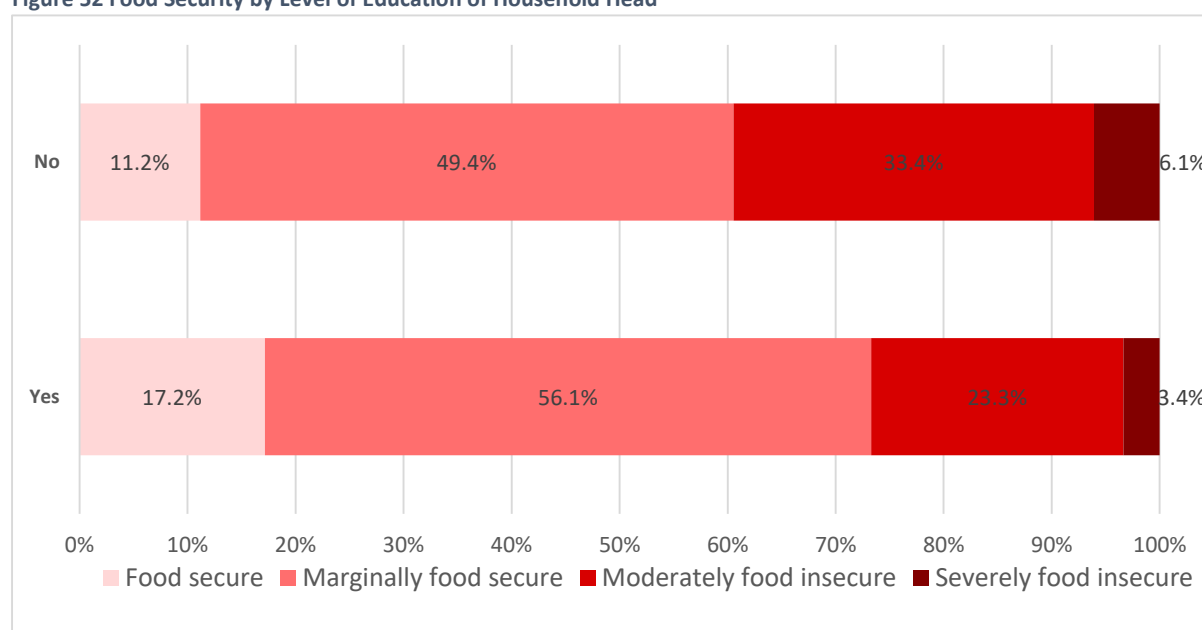
4.5.3 Food Security by Livelihood Zones

North-eastern Nigeria is divided into seven different livelihood zones:

	Livelihood Zones
NG05	Niger and Benue River Floodplain Rice and Fishing
NG06	Central Plain Yam and Cassava
NG09	North-eastern Highland Maize, Cocoyam, Potatoes, and Livestock
NG10	North-Central Maize, Sorghum, and Cotton
NG11	Northern Floodplains Irrigated Rice, Wheat, and Vegetables
NG12	Northeast Millet, Cowpea, and Sesame
NG13	Sahel Mixed Cereals and Livestock

4.5.3 Food Security by Livelihood Zones

Figure 53 Livelihood Zone Map for Borno State, Yobe State and Adamawa State
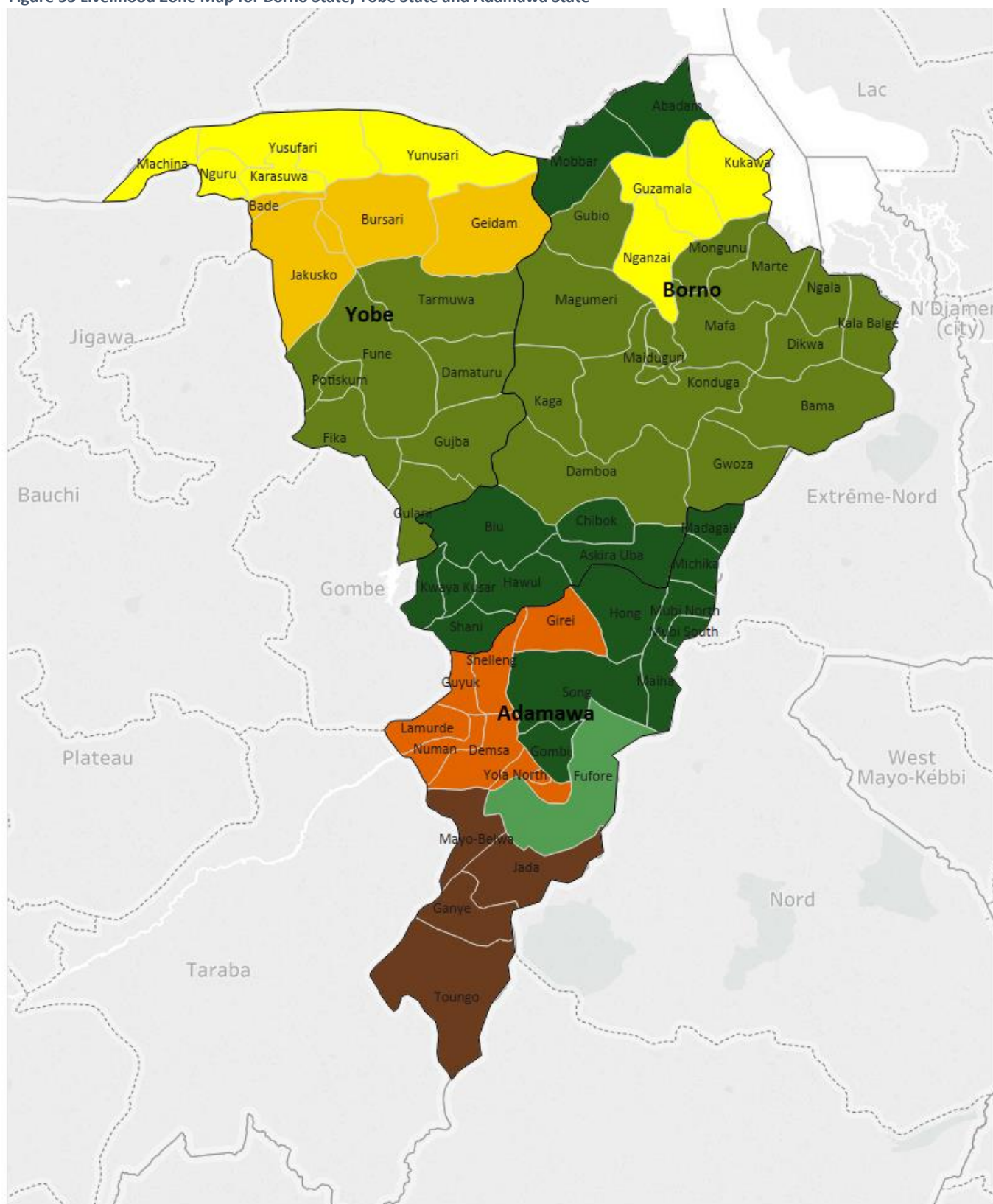
Livelihood Zone

- NG05 Niger and Benue River Floodplain Rice and Fishing
- NG06 Central Plain Yam and Cassava
- NG09 Northeastern Highland Maize, Cocoyam, Potatoes, and Lives
- NG10 North-Central Maize, Sorghum, and Cotton
- NG11 Northern Floodplains Irrigated Rice, Wheat, and Vegetables
- NG12 Northeast Millet, Cowpea, and Sesame
- NG13 Sahel Mixed Cereals and Livestock

The highest prevalence of severe and moderate food insecure households is in livelihood zones dominated by millet, cowpea and sesame (**Figure 54**). It is noteworthy to highlight that this zone comprises LGAs in the central areas of Borno and Yobe States, most of which are disproportionately affected by the ongoing conflict in the northeast.

Figure 54 Food Security Status by Livelihood Zone
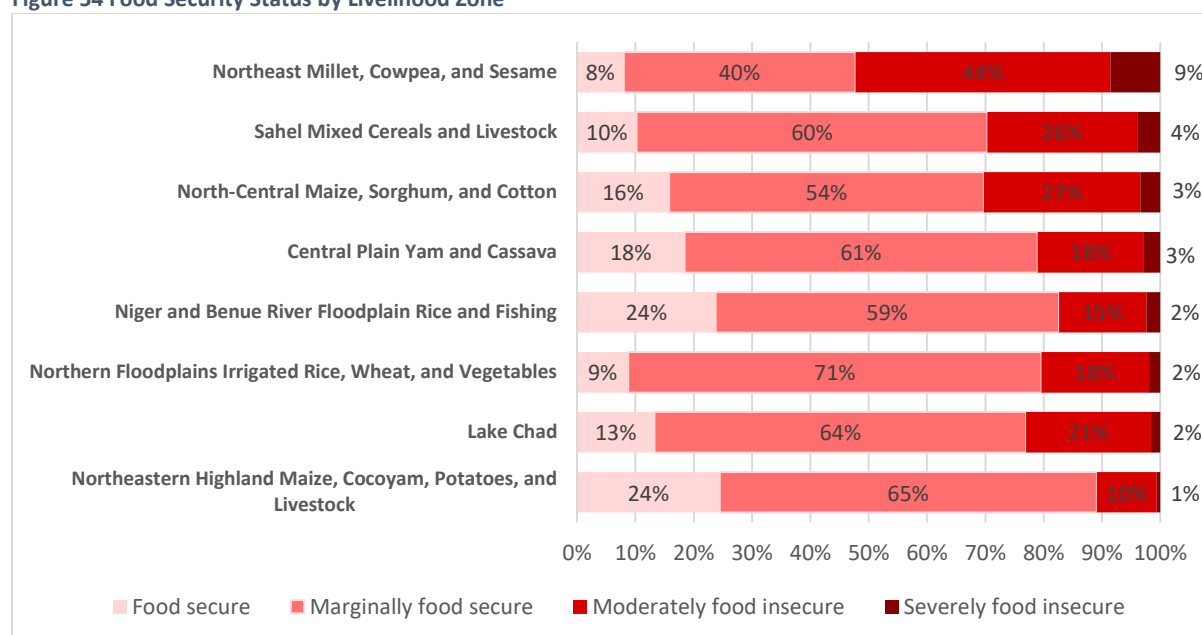
4.5.4 Food security by various vulnerable groups

Food insecurity impacts various groups differently and with different levels of intensity. The prevalence of severe and moderate food insecurity is higher in female-headed households compared to male-headed households. On the other hand, a high proportion of male-headed households are food secure as compared to male-headed households.

Figure 55 Food Security by Vulnerable Groups
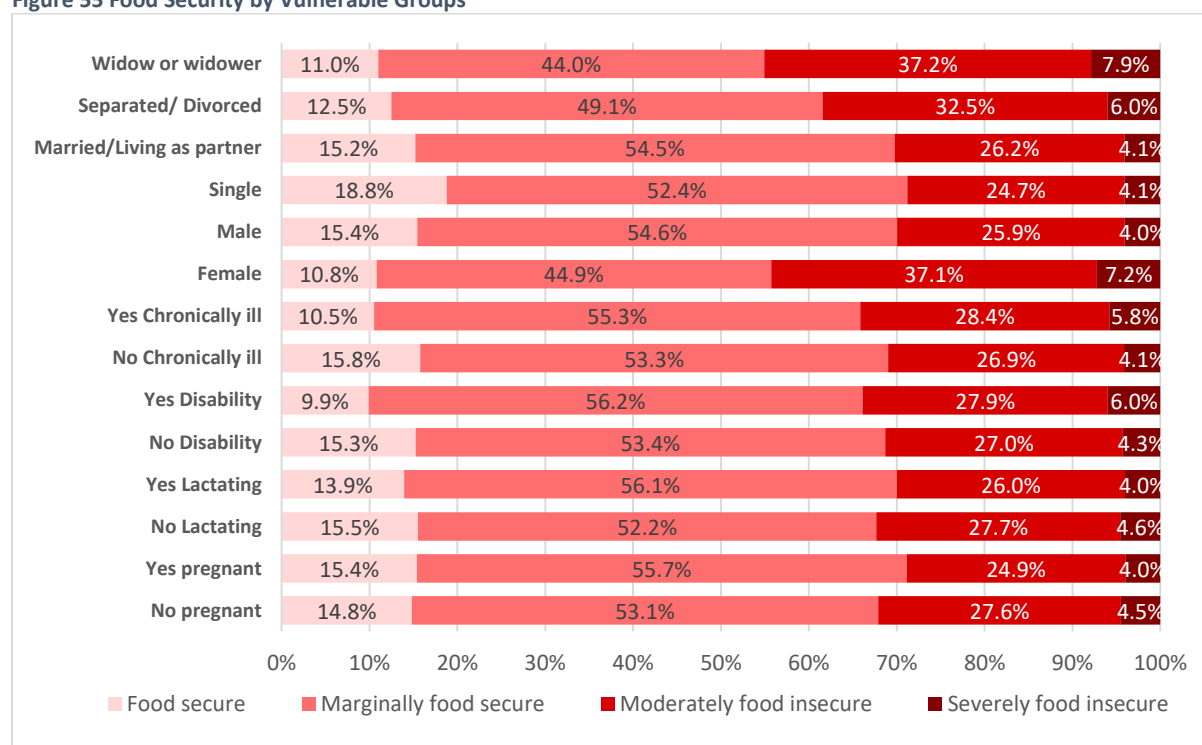
In the case of marital status, households headed by widows/widowers are more likely to be food insecure (45.1 percent) followed by divorced (38.5 percent). The married and single groups have almost the same level of severe food insecurity. Households headed by individuals that are single were found to be the most food secure (71.2 percent), followed by married (69.7 percent).

The disability of the household's head and the presence of chronically ill members also have an impact on food security: those households with a chronically ill member or headed by a person living with a disability have a higher rate of food insecurity compared to those without (**Figure 55**).

No or slight difference were found in term of food insecurity for household with pregnant and lactating women.

4.5.5 Food security among farming and non-farming households

The results show a clear relationship between the level of food security, land access and cultivation. In general, households without access to land are more food insecure (40 percent) compared to those with access (28 percent). This implies that accessibility to land for farming remains a key determinant of food insecurity in the northeast. Moreover, a correlation exists between food security and the expanse of land cultivated. Households that cultivate more hectares of land are found to be more food secure (**Figure 56**).

Figure 56 Food Security by Land Access and Size of Land Cultivated
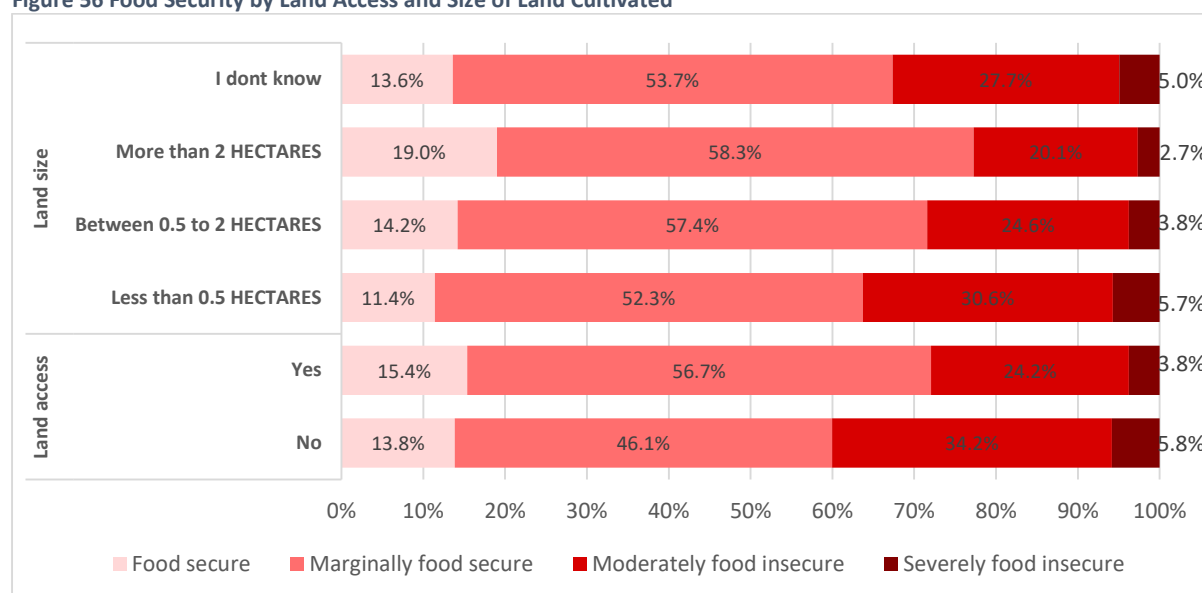
4.5.6 Food security by livestock ownership

The results show only 33.9 percent of the surveyed household own livestock (cattle, small ruminants or poultry). Severe and moderate food insecurity is twice higher among households who do not have livestock (39 percent) compared to those who have (19 percent). Explanatory factors include the direct food benefits that livestock farming provide including meat, milk and other dairy products, which are important for the nutritional wellbeing of children and pregnant and lactating women. The type of breeding seems not to have a huge impact on the level of food insecurity. Food insecurity is almost at the same level for households practicing sedentary livestock breeding and those doing transhumant stockbreeding. Fishing activities also have a positive impact on food security as it promotes access to protein. Households that do not practice any fishing or fish farming are twice food insecure than their counterparts that are involved in fish farming (**Figure 57**).

Figure 57 Food Security by Livestock Ownership

Does the household practice any fishing or fish farming?

- Yes: Food secure 14%, Marginally food secure 68%, Moderately food insecure 15%, Severely food insecure 2%
- No: Food secure 15%, Marginally food secure 53%, Moderately food insecure 27%, Severely food insecure 4%

If Yes, What type of breeding are you practicing?

- Transhumant stock breeding: Food secure 16%, Marginally food secure 65%, Moderately food insecure 17%, Severely food insecure 2%
- Sedentary livestock breading: Food secure 18%, Marginally food secure 62%, Moderately food insecure 17%, Severely food insecure 3%

Does your household own any livestock (cattle, small ruminants or poultry)?

- Yes: Food secure 17%, Marginally food secure 64%, Moderately food insecure 17%, Severely food insecure 2%
- No: Food secure 14%, Marginally food secure 47%, Moderately food insecure 33%, Severely food insecure 6%

Legend: Food secure, Marginally food secure, Moderately food insecure, Severely food insecure

4.5.7 Food security by Shocks and Coping Strategies

Shocks have a negative impact on food security at the household level. In the event of a shock, households become highly vulnerable and many become food insecure, at least in the short-term. Others continue to experience food insecurity in the long-term, depending on the nature of the shock and the depth of its impact.

Households in the northeast experienced a number of different shocks since the beginning of the insurgency. Across the three northeast states, sickness of a household member (37.8 percent) followed by high food price (29.0 percent), insecurity/conflict (10.5 percent) and loss of employment (8.6 percent) are the most significant shock. Borno State households are most affected by insecurity (18.6 percent). Moreover, 3.6 percent of households experienced crop failure which has implication for food availability and vulnerability within such affected households (**Figure *58***).

Figure 58 Shock Exposure by State

Legend: Loss employment/reduced income, Sickness of HH member, Insecurity/conflict, High food prices, High fuel/transportation prices, Debt, Irregular/unsafe drinking water, Temporary relocation/displacement, Heavy rains/floods, Crop failure, Restricted access to markets, Other shock, specify
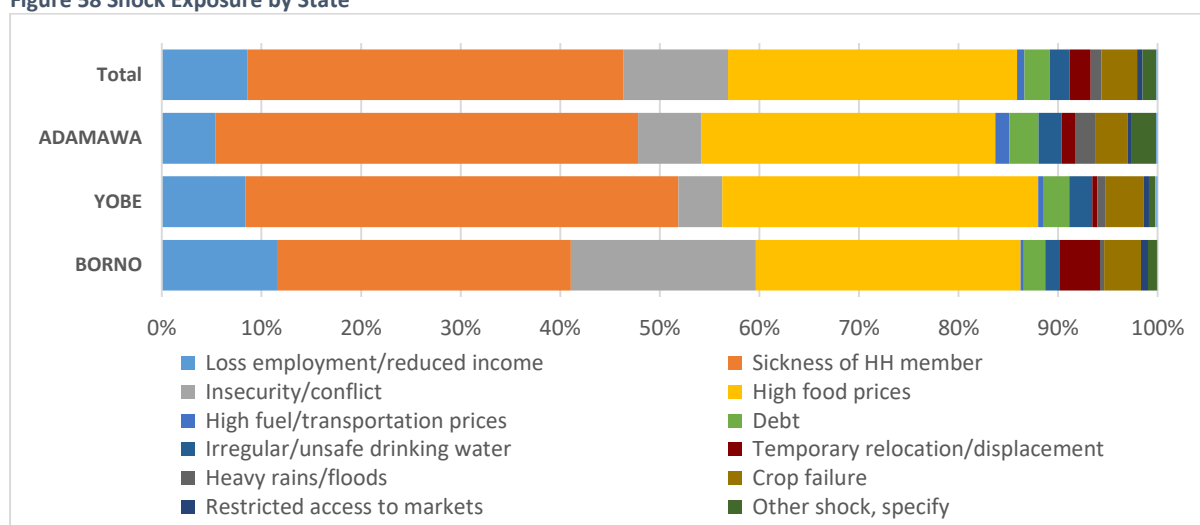
The EFSA results showed that food insecurity is higher among households that had experienced a shock (37 percent) compared to those that had not experienced any shock (30 percent). Severe and moderate food insecurity is higher among households that reported insecurity (47 percent), temporary displacement (46 percent), loss of employment (45 percent), restricted market access (43 percent) and crop failure (40 percent) (**Figure 59**).

Figure 59 Food Security by Exposure to Shock
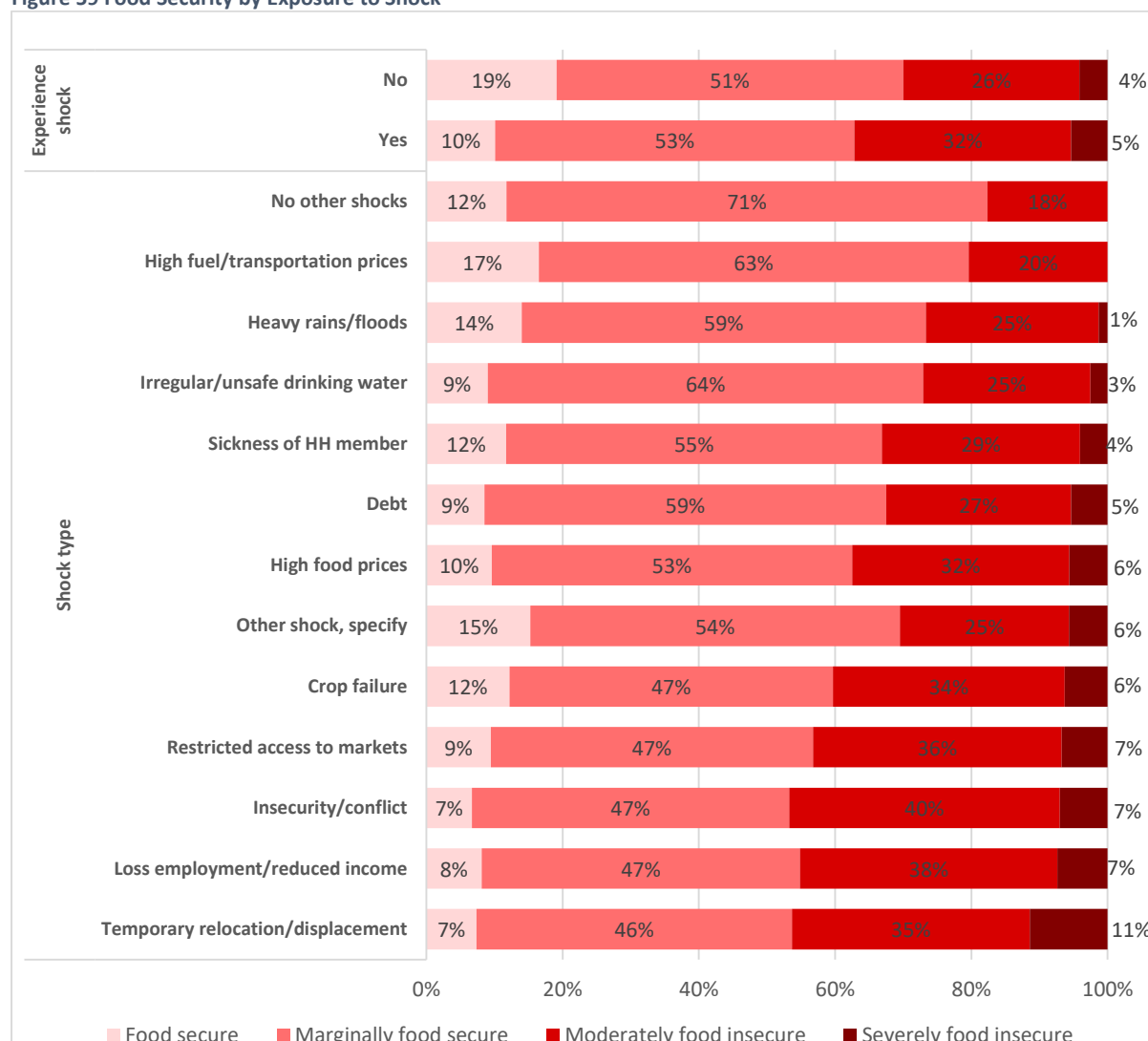
In the face of these shocks, households often adopt a range of different coping strategies to survive, which deepens vulnerability to food insecurity if unabated.

Among households that adopted a coping strategy when they experienced a shock, the prevalence of food insecurity is higher compared to those who did not resort to such strategies. This is because households with higher incomes or more assets are less likely to resort to coping strategies that negatively impact on food insecurity (e.g. reducing food expenditure), as they have the resources to maintain normal levels of food consumption. The highest percentages of severe food insecure households are found among those who are begging (21 percent) followed by households who had sold their land (20 percent), households who are engaged in illegal activities (20 percent) and those who had sold more animal than usual (12 percent) (**Figure 59**).

4.5.8 IDPs and Returnees

Displaced population are more vulnerable to food insecurity since displacement causes the loss of assets as well as human and social capital. Additionally, this situation exacerbates vulnerability among displaced individuals in the event of shock since IDPs are forced to rely on severe coping mechanism in order to ensure that their basic food needs are met. Generally, IDPs and returnees are more likely to be affected by food insecurity compared to permanent residents *(Figure 60)*. For instance, IDPs living in camps are three time more likely to be affected by severe and moderate food insecure compared to permanent residents who have never been displaced. Displacement primarily limits access to basic livelihood opportunities such as skilled employment and this is often compounded by lack of skills and low level of literacy, which limits the capacity of IDPs to connect with local opportunities within areas of new habitation, consequently forcing them to engage in jobs that require less level of skills such as land clearing and manual labour.

Figure 60 Food Security by Household Dwelling
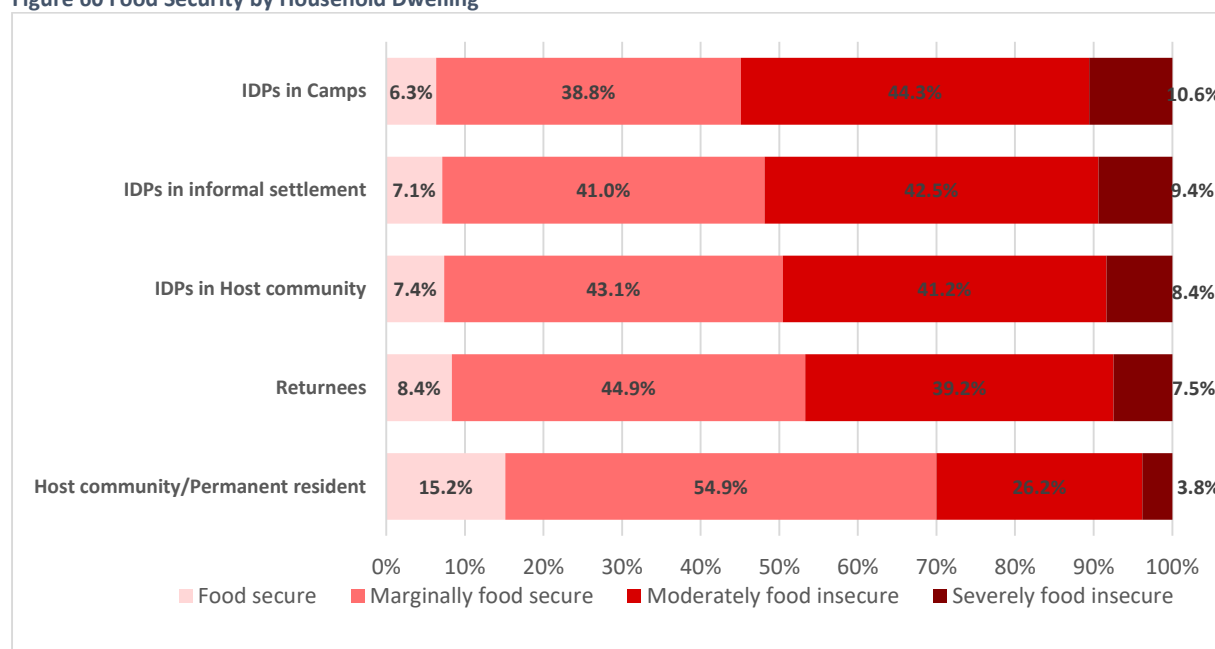
4.5.9 Poor Households or Households with Fewer or No Assets

Poor households with few assets tend to be more food insecure than better off households (*Figure 61*). When confronted with shocks and threats, households with lower levels of income and fewer assets are more likely to deploy extreme coping strategies to meet their basic food needs. If the use of such coping strategies persist, it might have severe and oftentimes irreversible impacts the level of food security within the affected households.

Wealth

Wealth is the value of all natural, physical and financial assets owned by a household, reduced by its liabilities. The wealth index is a composite index that combines the ownership of key assets; it is used as a proxy indicator of household level wealth. The calculation requires various steps based on a principal component analysis iteration. The following assets have been used to generate the wealth index: Beds, Sponge mattress, Table/chair, Radio, Television, Car, taxi, Cupboard/dresser, Agricultural tools (hoe/spade/cutlass), Seed for planting, Wheel barrow, Mosquito net, Cash, other savings (jewellery), Motorcycle, Bicycle, Cart (ox cart, etc.), Tricycle, Cell/Mobile phone.

Figure 61 Food Security by Wealth

	Food secure	Marginally food secure	Moderately food insecure	Severely food insecure
Wealthiest	27.4%	59.2%	11.9%	1.5%
Wealthier	17.2%	61.5%	19.3%	2.0%
Moderate	11.1%	56.9%	28.4%	3.6%
Poorer	8.5%	48.5%	36.8%	6.2%
Poorest	6.0%	37.6%	46.5%	9.9%
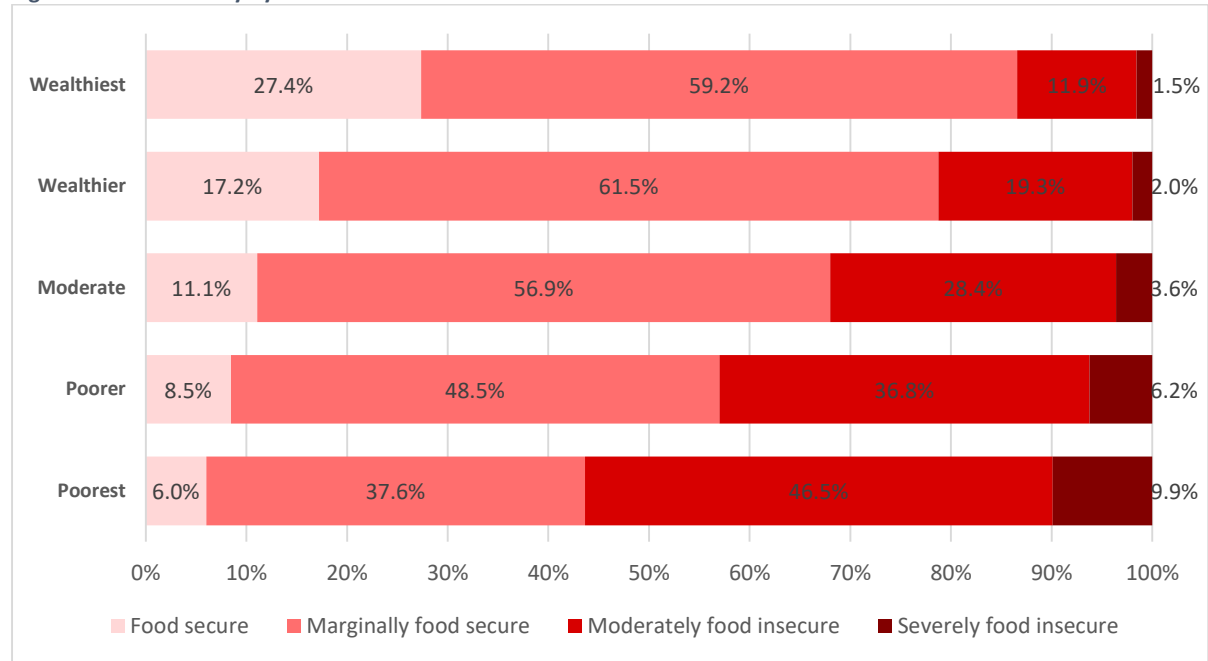
5.0 PROTECTION

Overall, 95.4 percent of the surveyed households perceived that the situation in their area of abode is good and devoid of any threats to their safety and that of their families. The proportion of households with favorable view about their living conditions is high in Borno (97.0 percent), Yobe (95.7 percent) and Adamawa (93.3 percent) States. Among the few households (4.6 percent) that were exposed to some sort of threat, the most prominent threats are physical violence (24.4 percent), killings (23.2 percent), destruction of properties such as houses and land (18.6 percent) and movement restrictions due to military check points and landmines (13.7 percent). Moreover, abduction remains a key threat among households in Borno (14.4 percent) and Yobe (11.2 percent). Although less prominent, the threat of rape still exists among some households in Yobe (3.3 percent), Borno (1.9 percent) and Adamawa (1.5 percent).

Figure 62 Households Exposure to Threats by State
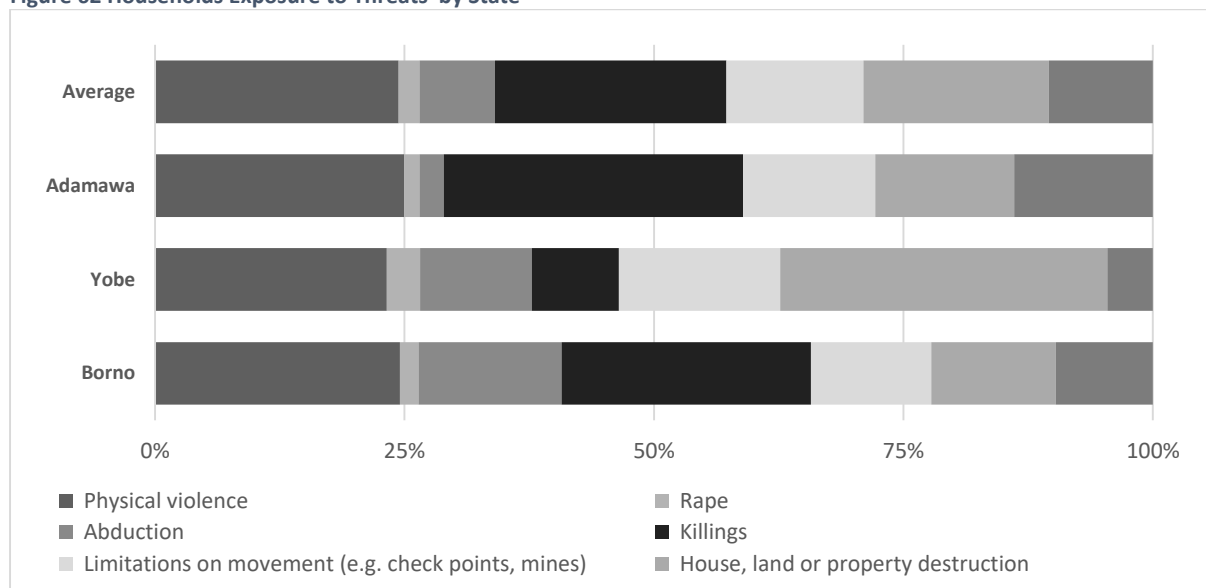
Some 61.3 percent of men and 4.3 percent of boys across BYA are the most exposed to threats and this could be attributed to the activities of the NSAG who specifically target men and boys. Additionally, women and girls in Yobe (42.3 percent) are more exposed to threats compared to their counterparts in Borno (27.6 percent) and Adamawa (22.8 percent) (**Figure 63**). The threats encountered by women and girls are related to kidnapping for enrolment in armed opposition groups and exposures during the course of fetching firewood.

Figure 63 Household Members exposed to Threats by State
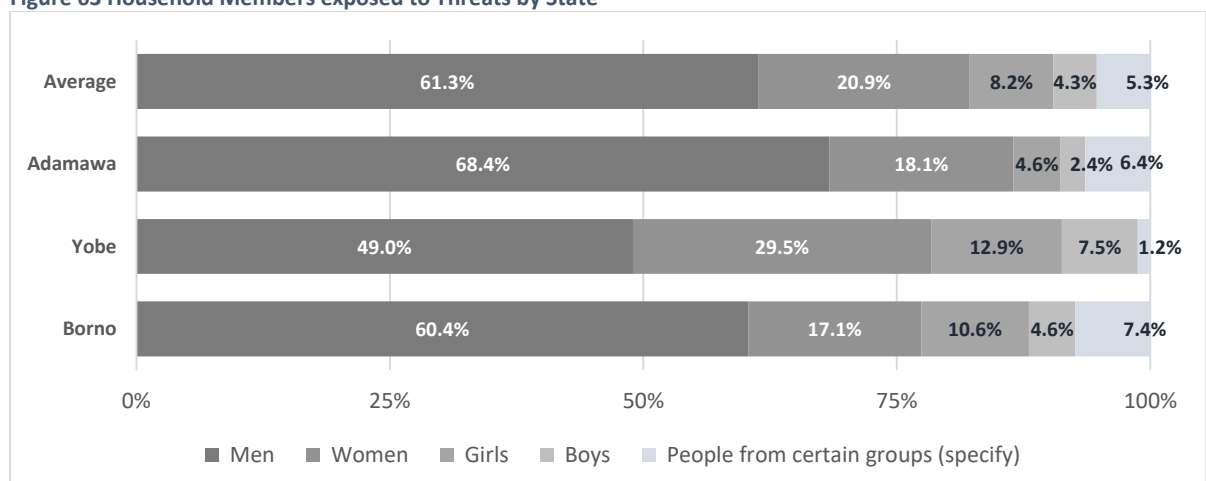
The exposure to threats mostly occurred when households were working on their farmlands (53.0 percent), accessing the markets (53.1 percent), fetching firewood (47.5 percent), collecting water (42.2 percent) and herding livestock (40.4 percent). The risk of threat when undertaking these activities is generally higher in Yobe State compared to Borno and Adamawa States. For instance, 62.1 percent of households in Yobe State were exposed to threats when working on their farmlands compared to 50.4 percent of households in Adamawa State and 48.2 percent of households in Borno State. Similarly, more households in Yobe State reported being exposed to threats when accessing markets, fetching firewood, collecting water and herding livestock compared to counterparts in Borno and Adamawa States (**Figure *64***). Moreover, a significant proportion of households in Adamawa State (50.8 percent) were exposed to threats during registration at food distribution sites compared to Borno State (28.4 percent) and Yobe State (20.0 percent). Also, more households in Borno State (27.6 percent) are exposed to threats when in IDP camps compared to Adamawa (21.6 percent) and Yobe (13.3 percent) States.

Figure 64 Location of Threat Exposure by State
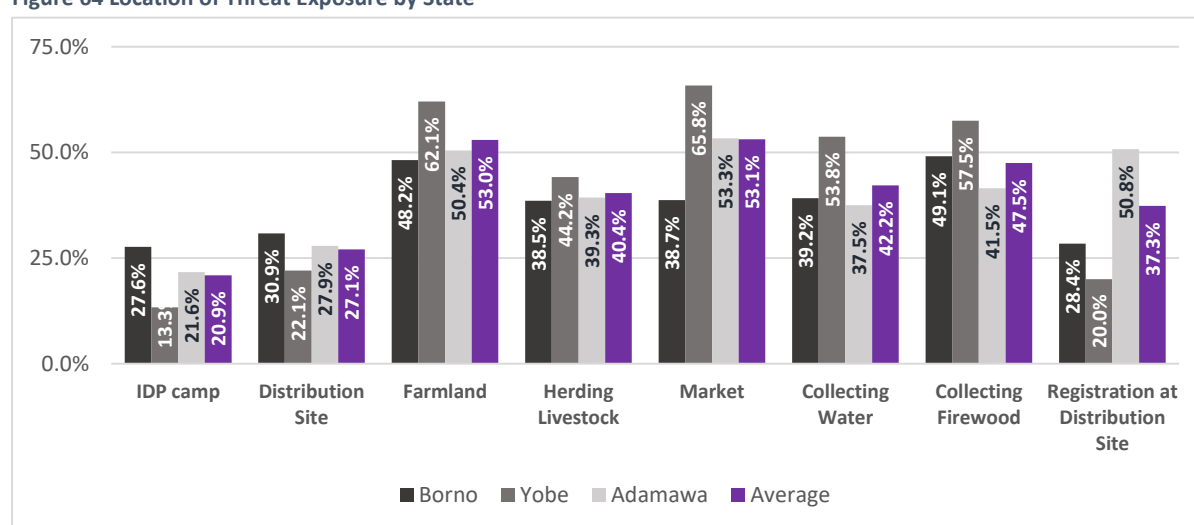
Overall, the relationship between IDPs and host community households range from good (56.9 percent) to very good (14.9 percent) to poor (1.3 percent) and very poor (0.2 percent). In the few cases where tensions were reported, 13.5 percent are ethnicity and religion-based tension. Additionally, the findings show that tensions exist between recipients and non-recipients of humanitarian assistance (10.7 percent).

6.0 GENDER DIMENSION OF FOOD INSECURITY IN THE NORTHEAST

The EFSA results show that **households headed by women have the highest rates of food insecurity** (44.3 percent), compared to their male counterpart (29.9 percent). Multiple factors explain this situation. In the context of conflict and displacement, women are more vulnerable as most of them are exposed to violence. Women are also at greater risk of sexual violence. **Women head a high proportion of displaced families**. For example, women head 32.7 percent of IDPs in camps, 25.5 percent of IDP in informal settlement and 19.3 percent of IDP in host community. The higher proportion of women in camps might be attributed to the perception that camp environments are relatively safe due to the presence of military within such settings. This is imperative since there have been reports of gender-based violence in the northeast. Moreover, displacement limits the ability of women to recover their livelihoods and meet their basics needs due to limited livelihood opportunities, security and social constraints. **Women are more vulnerable to poverty**; food insecurity is also a consequence of poverty, which is the main driver of economic access to food. According to the EFSA results, households headed by women are twice more likely to be a very poor compared to their male headed counterparts. About 41.8 percent of female-headed households are in the very poor wealth quintile, characterized by low possession of productive and non-productive assets against 19.7 percent for male-headed household. To meet their food and non-food need, they have to resort on begging as source of income as **8 percent of woman headed household depend on begging as main livelihood compared to 1.6 percent for their male counterpart**. Female-headed households are more involved in petty trade (10.6 percent compared to 4.9 percent for male-headed household) and sales of natural resources (6.9 percent against 1.9 percent for male-headed household).

Women tend to have a lower level of education compared to men: 63.1 percent of women cannot read and write in any language against 32.5 percent for men. The level of household education is an important factor in food security because it facilitates access to sources of less precarious incomes and increases the level of household wealth (*see above food security by education level).* In addition, a high level of educational attainment for women would promote improved care practices and the nutritional status of children.

Women tend to have less access to land for farming. Access to land plays an important role in household food security in a context where households largely depend on farming to access to food and income. Household that have access to land for farming are more food secure. Only 37 percent of female-headed households have access to land for farming compared to 67.3 percent for male-headed households. Some 20.3 percent of the female-headed households do not own the land as against 4.6 for male-headed households. Moreover, the area cropped by women with land access remains relatively small with 35.5 percent cultivating 0.5 hectares as opposed to 17 per cent for male-headed households.

However, even when land is available, **households headed by female lack the financial capacity** (34.3 percent) and **face insecurity concerns** (9.7 percent) to perform their agricultural activities.

# 7.0 FOOD ASSISTANCE, HOUSEHOLD PRIORITIES AND FOOD PREFERENCE

7.1 Food Assistance

Almost one in every five households (19.4 percent) interviewed during the assessment received some sort of food assistance within the last three months preceding the assessment. More of such households are found in Borno State (28.8 percent) compared to Yobe (16.0 percent) and Adamawa (12.0 percent) States. Indeed, Borno State remains the epicentre of the ongoing armed conflict in the northeast and currently hosts the largest number of IDPs within the region. Consequently, Borno State has gained more attention and support from the government and the entire humanitarian community due to the severity of the conflict, which has limited livelihood and land access, agricultural activities and the optimal functionality of markets, all of which exacerbates the vulnerability of households. Based on figures from the September 2017 Food Security Sector Dashboard[15], beneficiaries within Borno State accounts for over 70 percent of the 3.8 million individuals receiving food assistance (in-kind and cash) and agricultural livelihood support across BYA.

Free food distribution (31.2 percent) remains the prominent type of food assistance received across households within Borno State (32.1 percent), Yobe State (30.7 percent) and Adamawa State (29.7 percent). Moreover, other food assistance modalities such as cash based transfers (13.0 percent), food for training/work (11.8 percent) and school feeding programmes for children (10.6 percent) are gradually gaining popularity in BYA as more households reported benefiting from such interventions compared to February 2017 where only 2.4 percent benefited from cash based transfers, 1.9 percent from food for training/work and 1.8 percent from school feeding programmes for children. The improvement in the security situation, particularly urban areas and capital cities of BYA has positively impacted on market functionality within such areas, consequently spurring the government and other humanitarian partners to leverage alternate food assistance modalities, most importantly the cash based transfers.

NGOs, UN agencies and the government account for over 70 percent of the entire aid received by households across BYA. While NGOs are reported to be the most prominent provider of food aid (42.1 percent), government and UN agencies provided aid to 17.2 percent and 11.8 percent of all assisted households respectively (**Figure 65**). NGOs, UN agencies and government are responsible for food aid to 75.0 percent and 73.4 percent of the households assisted in Borno and Yobe States respectively, whereas only 58.8 percent of households in Adamawa State received food aid from these relief providers. However, relatives and friends are important providers of food assistance in Adamawa State (24.8 percent) compared to Yobe State (16.0 percent) and Borno State (13.8 percent).

Figure 65 Providers of Food Assistance Received by States
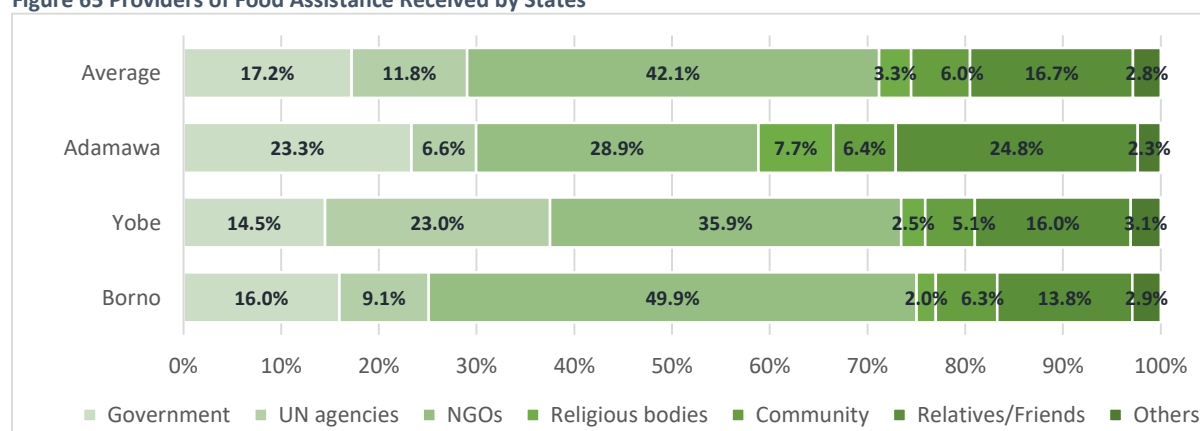
Moreover, food assistance correlates with vulnerability of households as IDP households, which often have limited livelihood opportunities, are much more likely to benefit from food assistance compared to host communities (**Figure 66**). There are more IDP households, specifically those living within camps (80.8 percent), that have benefited from food assistance within three months preceding the assessment compared to households that IDPs in host communities (35.1 percent), IDPs in informal settlements (29.3 percent), returnees (34.0 percent) and host communities (14.0 percent). The trend is consistent at the state level where the highest proportion of households to have benefited from food assistance are found within households that are IDPs living in camps. Female headed households (33.1 percent) across BYA are as well more likely to benefit from food assistance compared to their male headed counterparts (19.7 percent) (**Figure 67**).

Figure 66 Proportion of Households that received Food Assistance by Dwelling Type
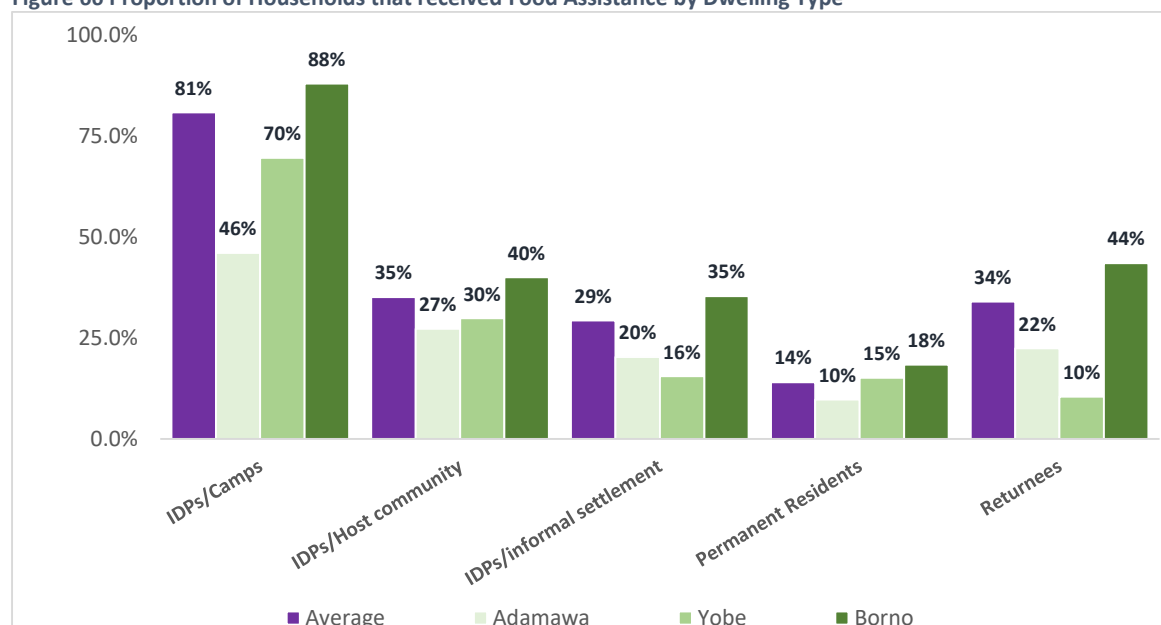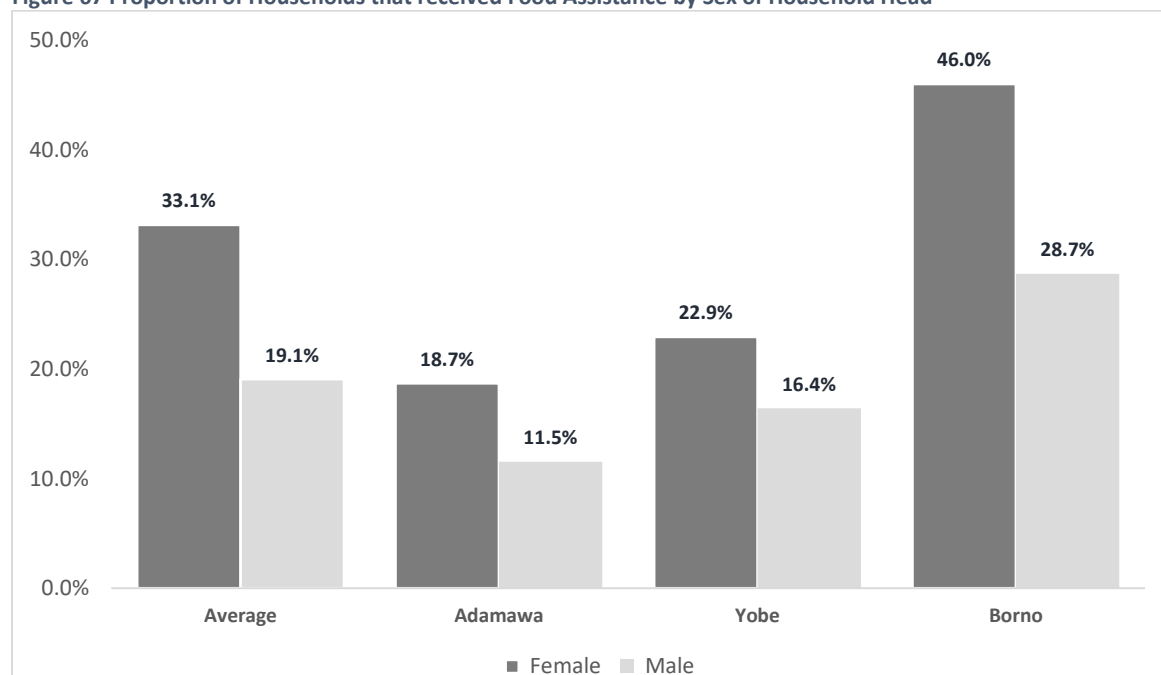

Figure 67 Proportion of Households that received Food Assistance by Sex of Household Head

At the LGA level, more households in humanitarian operational areas with limited livelihood opportunities and restricted movements such as Bama and Gwoza have benefited from food assistance within three months preceding the assessment. In Borno State, Bama (95.9 percent), Gwoza (81.7 percent), Dikwa (70.6 percent), Mobbar (64.4 percent), Kukawa (48.8 percent), Damboa (45.6 percent) and Kaga (33.4 percent), all of which have limited livelihood opportunities and restricted movement have the highest proportion of households that have received food assistance. Similarly in Yobe State, Gujba (51.9 percent), Geidam (33.0 percent), Gulani (27.5 percent), Jakusko (23.7 percent) and Tarmua (20.3 percent) are all LGAs within this category. In Adamawa State, Michika (28.1 percent), Mubi North (25.6 percent) and Madagali (23.5 percent), all of which are disproportionately affected by the ongoing hostilities compared to their counterpart LGAs in Adamawa State and are therefore receiving some measure of humanitarian assistance as a result, have a significantly higher proportion of households that have benefited from food assistance (**Figure *68***). However, there are a few LGAs with a significant level of food insecure households and a relatively low level of households that have benefited from food assistance. In Borno State, Chibok (9.3 percent), Biu (8.3 percent), Askira Uba (7.3 percent), Hawul (7.0 percent), Kwaya Kusar (6.3 percent) and Bayo (4.3 percent) are LGAs in this category with a significant level of food insecurity (> 25 percent) and a relatively low level food assistance. Other LGAs within the same category in Yobe State are Nangere (7.8 percent), Karasuwa (7.0 percent), Bade (5.5 percent), Potiskum (5.1 percent) and Fika (4.2 percent).

Free food distribution is the most prominent type of food assistance received with over 25 percent of households across majority of the 62 LGAs in BYA consenting to have benefited from such except for Chibok (22.6 percent) and Askira Uba (15.9 percent) in Borno State, Jakuksko (23.5 percent) in Yobe State and Ganye (23.1 percent), Guyuk (22.2 percent), Numan (24.6 percent) and Toungo (16.7 percent) in Adamawa State (**Figure *69***). Cash based transfer is found to be a predominant type of assistance which caters for food needs across households within Gubio (32.9 percent), Biu (30.8 percent), Mafa (28.4 percent), Askira Uba (27.5 percent), Ngala (26.7 percent), Kwaya Kusar (24.6 percent), Kukawa (24.3 percent), Konduga (23.5 percent), Magumeri (22.8 percent) and Kaga (21.7 percent) in Borno State, Bade (31.5 percent), Gulani (19.3 percent), Jakusko (17.4 percent), Nangere (16.7 percent), Bursari (15.9 percent) and Damaturu (14.6 percent) in Yobe State. These findings correlate with the Food Security Sector (FSS) Cash Dashboard[16] where some of these LGAs (Askira Uba, Kaga, Jakusko, Bursari, Gulani etc.) are shown to have humanitarian actors that are currently implementing cash based transfers through the traditional paper based and electronic voucher system. In Adamawa State, a correlation between the findings from the FSS Cash Dashboard[10] and the EFSA is found in Madagali (15.3 percent), Michika (11.2 percent), Mubi North (15.4 percent), Gombi (14.9 percent) and Maiha (10.7 percent), where humanitarian actors are implementing cash based transfer programs and there is a significant proportion of households that have benefited from such programs.

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[16] Northeast Nigeria food security sector cash dashboard, September 2017.
https://reliefweb.int/sites/reliefweb.int/files/resources/ng_fss_1709_cash_dashboard_170930.pdf

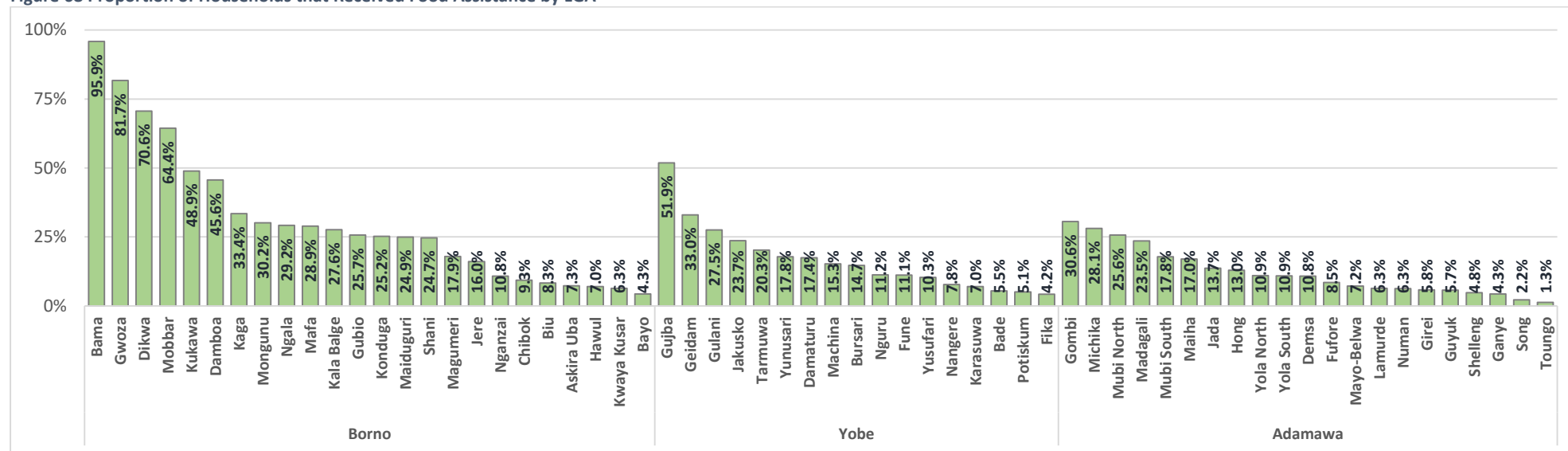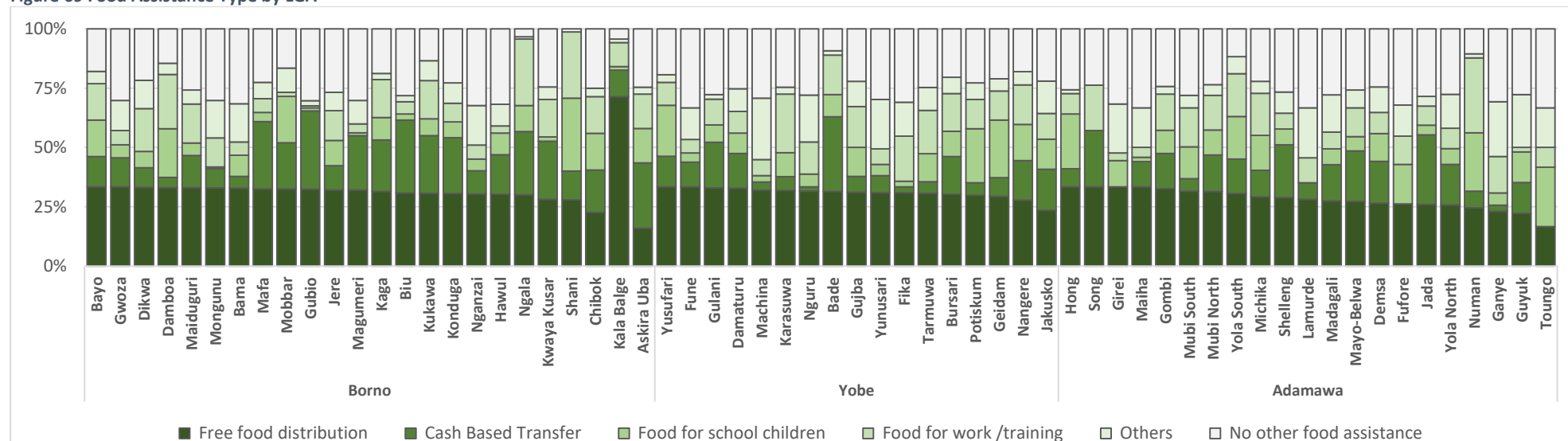**Figure 68 Proportion of Households that Received Food Assistance by LGA**

Figure 69 Food Assistance Type by LGA

Legend: ■ Free food distribution   ■ Cash Based Transfer   ■ Food for school children   □ Food for work /training   □ Others   □ No other food assistance

7.2 Household Priorities

Overall, the top three priority needs across the assessed households in BYA are food assistance (66.5 percent), health and medical services (29.9 percent) and education (21.4 percent). In Borno, Yobe and Adamawa States, food assistance remains the top priority need among 72.6 percent, 77.7 percent and 50.7 percent of households respectively *(Table 9)*. Also, health and medical services is the second priority need in BYA as 25.7 percent, 35.2 percent and 30.1 percent of households indicated their interest in being supported in the areas of health and medical services in Borno, Yobe and Adamawa States respectively (*Table 10).* Education is found to be the third priority need among households in Adamawa (24.5 percent) and Yobe (22.0 percent) States, whereas in Borno State, livelihood support (20.4 percent) remains third most important priority need (*Table 11*).

Table 9 First Priority Need by State

	Priority Needs								
	Food Assistance	Health/ Medical	Water	Shelter	Education	Livlihood Support	Food Support (children)	Non-food Items	No Other Priority
Borno	72.6%	10.1%	2.7%	3.5%	2.7%	7.1%	0.4%	0.9%	0.1%
Yobe	77.7%	6.6%	4.7%	3.5%	2.7%	3.6%	0.2%	1.0%	0.1%
Adamawa	50.7%	17.4%	5.6%	3.2%	8.6%	11.7%	0.6%	2.2%	0.1%
Average	66.5%	11.6%	4.2%	3.4%	4.8%	7.7%	0.4%	1.3%	0.1%

Table 10 Second Priority Need by State

	Priority Needs								
	Food Assistance	Health/ Medical	Water	Shelter	Education	Livlihood Support	Food Support (children)	Non-food Items	No Other Priority
Borno	10.8%	25.7%	13.5%	12.6%	11.0%	21.4%	1.6%	3.3%	0.2%
Yobe	9.4%	35.2%	14.8%	9.8%	8.7%	16.3%	0.4%	5.3%	0.1%
Adamawa	13.3%	30.1%	10.1%	6.7%	19.1%	16.6%	1.3%	2.6%	0.3%
Average	11.2%	29.9%	12.7%	9.7%	13.1%	18.3%	1.2%	3.6%	0.2%

Table 11 Third Priority Need by State

	Priority Needs								
	Food Assistance	Health/ Medical	Water	Shelter	Education	Livlihood Support	Food Support (children)	Non-food Items	No Other Priority
Borno	5.0%	14.1%	12.7%	15.9%	18.2%	20.4%	4.1%	8.3%	1.4%
Yobe	4.8%	20.7%	13.0%	12.5%	22.0%	14.2%	1.7%	9.5%	1.7%
Adamawa	8.2%	18.5%	9.5%	8.0%	24.5%	19.9%	2.7%	6.1%	2.5%
Average	6.1%	17.5%	11.7%	12.2%	21.4%	18.5%	2.9%	7.9%	1.9%

Moreover, shelter is found to be an important priority need for IDPs living in host communities and informal settlements in Borno and Yobe States, which is potentially due to the less structured nature of these dwellings. Shelter is also found to be an important priority need in Gubio, Magumeri, Biu, Dikwa, Nganzai, Kukawa and Bama in Borno State including Tarmua, Yunusari and Bursari LGAs in Yobe State. Additionally, water is found to be a priority need as it is reported as the third priority need by households across Gubio, Magumeri, Monguno and Ngala in Borno State and Bursari in Yobe State.

Table 12 First Priority Need by Dwelling

		Priority Needs								
		Food Assistance	Health/ Medical	Water	Shelter	Education	Livlihood Support	Food Support (children)	Non-food Items	No Other Priority
Borno	IDPs in Camps	81.6%	6.0%	0.1%	3.3%	1.8%	4.9%	0.3%	1.8%	0.1%
	IDPs in Host community	75.1%	10.0%	1.8%	4.3%	1.2%	6.3%	0.1%	1.1%	0.2%
	IDPs in informal settlement	88.2%	0.0%	2.2%	3.1%	0.9%	4.4%	0.4%	0.9%	0.0%
	Permanent residents	67.3%	13.2%	3.3%	2.8%	3.7%	8.2%	0.4%	0.9%	0.1%
	Returnees	80.5%	8.4%	1.5%	3.4%	0.4%	4.7%	0.1%	0.9%	0.0%
Yobe	IDPs in Camps	81.2%	1.4%	0.0%	11.6%	0.0%	5.8%	0.0%	0.0%	0.0%
	IDPs in Host community	87.8%	2.6%	1.4%	1.9%	2.6%	2.6%	0.0%	1.2%	0.0%
	IDPs in informal settlement	79.3%	1.7%	13.8%	1.7%	0.0%	3.4%	0.0%	0.0%	0.0%
	Permanent residents	77.1%	6.9%	5.7%	2.6%	2.4%	3.9%	0.2%	1.2%	0.1%
	Returnees	72.2%	5.2%	3.5%	14.8%	3.5%	0.9%	0.0%	0.0%	0.0%
Adamawa	IDPs in Camps	63.5%	7.8%	1.7%	4.3%	7.0%	13.0%	0.9%	1.7%	0.0%
	IDPs in Host community	67.0%	9.6%	1.2%	5.8%	7.8%	7.8%	0.3%	0.6%	0.0%
	IDPs in informal settlement	68.8%	9.4%	1.6%	6.3%	3.1%	1.6%	4.7%	4.7%	0.0%
	Permanent residents	46.7%	19.3%	6.1%	3.2%	9.5%	12.8%	0.4%	2.0%	0.1%
	Returnees	53.8%	16.4%	2.7%	4.8%	8.3%	12.0%	0.0%	1.5%	0.4%
Average	IDPs in Camps	79.1%	5.9%	0.4%	4.1%	2.4%	6.1%	0.4%	1.6%	0.1%
	IDPs in Host community	76.5%	8.2%	1.6%	4.0%	2.8%	5.7%	0.1%	1.0%	0.1%
	IDPs in informal settlement	83.2%	2.0%	4.0%	3.4%	1.1%	3.7%	1.1%	1.4%	0.0%
	Permanent residents	62.7%	13.5%	5.1%	2.9%	5.5%	8.6%	0.3%	1.4%	0.1%
	Returnees	70.9%	10.8%	2.1%	4.7%	3.3%	6.9%	0.1%	1.0%	0.1%

Table 13 Second Priority Need by Dwelling

		Priority Needs								
		Food Assistance	Health/ Medical	Water	Shelter	Education	Livlihood Support	Food Support (children)	Non-food Items	No Other Priority
Borno	IDPs in Camps	7.2%	30.4%	5.7%	21.3%	8.8%	17.2%	1.6%	7.3%	0.3%
	IDPs in Host community	12.1%	22.5%	14.4%	14.9%	8.1%	23.0%	0.9%	3.8%	0.3%
	IDPs in informal settlement	3.9%	16.6%	13.1%	19.2%	3.9%	32.8%	1.3%	9.2%	0.0%
	Permanent residents	11.5%	28.7%	14.4%	11.0%	11.9%	18.4%	1.3%	2.8%	0.1%
	Returnees	11.0%	30.2%	12.7%	18.2%	6.6%	13.3%	1.6%	5.9%	0.3%
Yobe	IDPs in Camps	10.1%	24.6%	4.3%	15.9%	7.2%	26.1%	1.4%	10.1%	0.0%
	IDPs in Host community	7.1%	29.9%	8.7%	16.0%	6.6%	22.4%	0.9%	8.5%	0.0%
	IDPs in informal settlement	15.5%	46.6%	12.1%	10.3%	1.7%	10.3%	1.7%	1.7%	0.0%
	Permanent residents	9.3%	33.7%	17.0%	7.9%	8.8%	17.6%	0.4%	5.1%	0.2%
	Returnees	20.0%	36.5%	7.8%	15.7%	7.8%	7.8%	1.7%	2.6%	0.0%
Adamawa	IDPs in Camps	10.4%	31.3%	1.7%	10.4%	20.0%	20.9%	4.3%	0.9%	0.0%
	IDPs in Host community	11.9%	26.4%	7.8%	17.7%	10.4%	23.8%	0.9%	1.2%	0.0%
	IDPs in informal settlement	15.6%	34.4%	14.1%	6.3%	14.1%	7.8%	6.3%	1.6%	0.0%
	Permanent residents	13.4%	29.7%	10.6%	5.8%	20.8%	15.9%	1.0%	2.5%	0.3%
	Returnees	11.6%	31.5%	6.8%	7.5%	17.2%	21.1%	0.4%	3.7%	0.2%
Average	IDPs in Camps	7.9%	30.1%	5.1%	19.4%	10.2%	18.4%	2.0%	6.7%	0.2%
	IDPs in Host community	10.8%	25.0%	11.8%	15.7%	8.2%	23.0%	0.9%	4.4%	0.2%
	IDPs in informal settlement	8.0%	24.8%	13.1%	15.4%	5.4%	24.5%	2.3%	6.6%	0.0%
	Permanent residents	11.5%	30.7%	13.8%	8.0%	14.3%	17.2%	0.9%	3.4%	0.2%
	Returnees	11.9%	31.1%	10.4%	14.5%	10.2%	15.5%	1.2%	4.9%	0.3%

Table 14 Third Priority Need by Dwelling

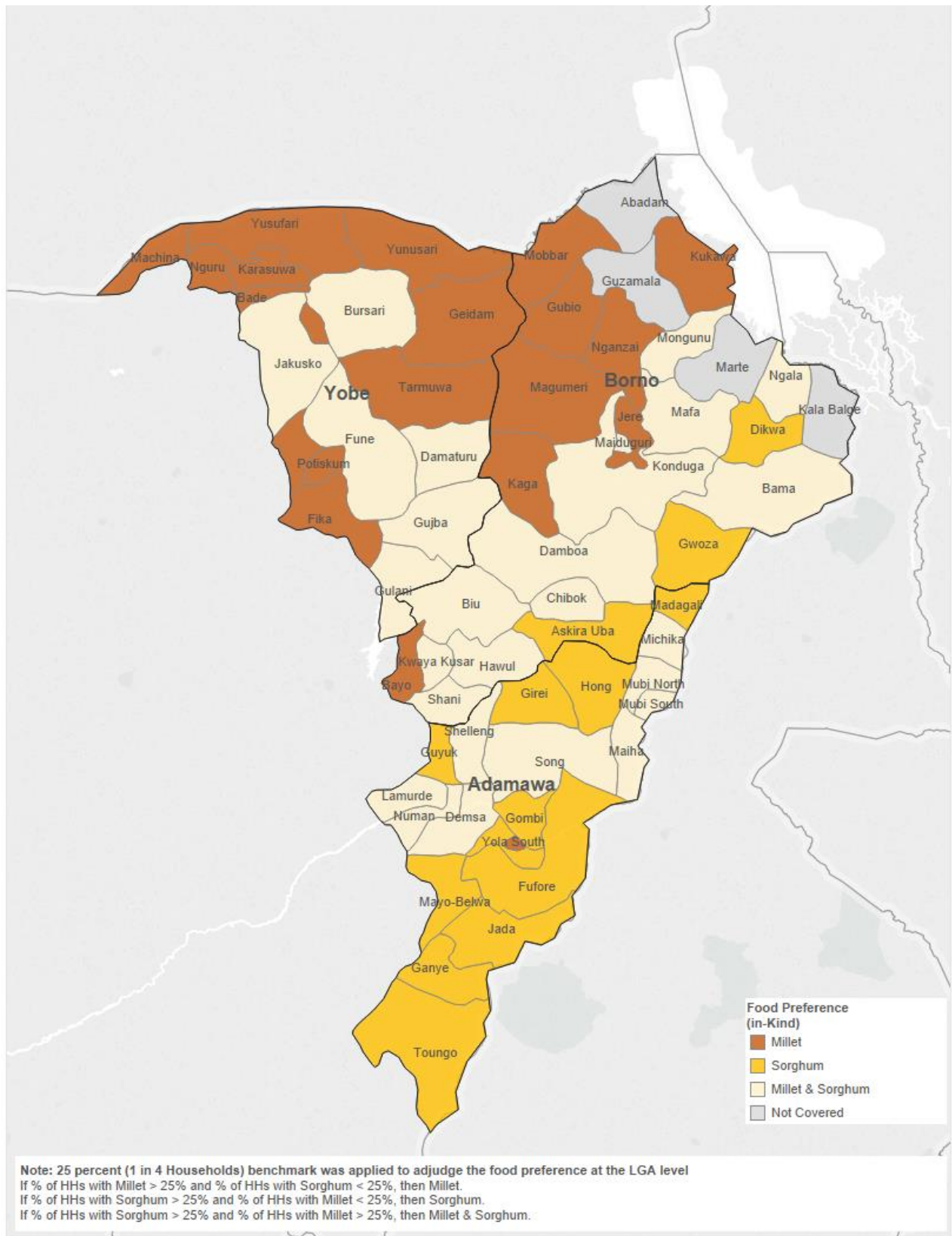|		Priority Needs								
		Food Assistance	Health/ Medical	Water	Shelter	Education	Livlihood Support	Food Support (children)	Non-food Items	No Other Priority
Borno	IDPs in Camps	3.0%	12.2%	7.2%	16.8%	17.0%	18.3%	7.8%	14.3%	3.3%
	IDPs in Host community	4.5%	12.8%	13.6%	24.0%	13.5%	17.5%	2.1%	11.0%	1.1%
	IDPs in informal settlement	4.8%	14.8%	9.2%	20.1%	13.1%	19.7%	3.5%	10.0%	4.8%
	Permanent residents	5.6%	14.5%	13.8%	14.8%	19.5%	21.0%	3.2%	6.4%	1.2%
	Returnees	3.4%	10.6%	16.4%	16.5%	18.0%	19.8%	4.1%	8.8%	2.3%
Yobe	IDPs in Camps	1.4%	10.1%	14.5%	24.6%	7.2%	21.7%	1.4%	17.4%	1.4%
	IDPs in Host community	3.3%	15.1%	10.1%	21.4%	14.8%	22.1%	2.6%	9.2%	1.4%
	IDPs in informal settlement	0.0%	10.3%	31.0%	6.9%	25.9%	15.5%	0.0%	10.3%	0.0%
	Permanent residents	4.7%	20.8%	13.7%	10.2%	21.5%	16.0%	1.6%	9.7%	1.8%
	Returnees	4.3%	30.4%	9.6%	23.5%	12.2%	13.0%	1.7%	4.3%	0.9%
Adamawa	IDPs in Camps	7.0%	14.8%	7.8%	16.5%	20.0%	18.3%	6.1%	9.6%	0.0%
	IDPs in Host community	7.0%	19.1%	5.8%	14.8%	20.0%	23.8%	1.4%	7.0%	1.2%
	IDPs in informal settlement	3.1%	26.6%	10.9%	12.5%	20.3%	9.4%	15.6%	1.6%	0.0%
	Permanent residents	9.0%	17.9%	9.8%	6.9%	24.9%	20.2%	2.3%	6.0%	3.0%
	Returnees	5.8%	20.0%	6.6%	9.1%	24.6%	24.0%	1.4%	6.8%	1.7%
Average	IDPs in Camps	3.4%	12.4%	7.9%	17.4%	16.6%	18.6%	7.1%	13.9%	2.7%
	IDPs in Host community	4.7%	14.5%	11.2%	21.6%	15.1%	19.8%	2.1%	9.8%	1.2%
	IDPs in informal settlement	3.7%	16.2%	13.1%	16.5%	16.5%	17.1%	5.1%	8.5%	3.1%
	Permanent residents	6.6%	17.8%	12.3%	10.3%	22.2%	19.1%	2.3%	7.3%	2.1%
	Returnees	4.3%	15.2%	12.6%	14.6%	19.8%	20.7%	3.0%	7.8%	2.0%

7.3 Food Preference

Cereals constitute an important component of the food basket in the northeast due to its availability, preference and cost effectiveness. As maize, millet and sorghum are the three important cereals in the three states, the assessment evaluated the pattern households' preference for these food items. The findings revealed household's preference for maize over the other two cereals in Borno and Adamawa states. In Yobe State, households have more preference for sorghum and millet compared to maize. Nonetheless, preference for maize remains moderately high in Yobe regardless, as it generally remains a key cereal in northern Nigeria. Maize is not just the most preferred cereal but it is also the most cultivated cereal in northern Nigeria due to its adaptability to soil and climate conditions which makes it relatively less labour intensive. Maize is part of the daily diet of most people in northern Nigeria as it is easy to prepare and can be consumed in various forms including gruel (kamu/koko/ogi), broken and boiled (biski), fufu, among others.

When millet and sorghum are compared, preference for millet is more pronounced in northern areas of Borno and Yobe, including some central areas in Borno (Jere and Kaga) and eastern areas of Yobe (Potiskum and Fika). While there is no LGA within Yobe where sorghum is found to be the most preferred between the two cereals, preference for sorghum is quite pronounced in Dikwa, Gwoza and Askira Uba in Borno and most of the LGAs in Adamawa State except for Michika, Mubi North and South, Maiha, Song, Shelleng, Demsa, Lamurde, Numan, Guyuk and Yola South, where there is preference for millet or a combination of millet and sorghum. Moreover, there is no clear difference in the preference for either of both cereals in Mongunu, Mafa, Maiduguri, Konduga, Ngala, Bama, Damboa, Chibok, Biu, Kwaya Kusar, Hawul and Shani in Borno State and Gujba, Gulani, Fune, Jakusko, Bursari and Damaturu in Yobe State (**Figure 70**).

Figure 70 Preference between Millet and Sorghum by LGA

Note: 25 percent (1 in 4 Households) benchmark was applied to adjudge the food preference at the LGA level
If % of HHs with Millet > 25% and % of HHs with Sorghum < 25%, then Millet.
If % of HHs with Sorghum > 25% and % of HHs with Millet < 25%, then Sorghum.
If % of HHs with Sorghum > 25% and % of HHs with Millet > 25%, then Millet & Sorghum.

8.0 CONCLUSION

The humanitarian crisis in north eastern Nigeria continue to affect the food security and livelihoods of populations in Borno, Yobe and Adamawa States. The results of the EFSA shows that about 34 percent of the surveyed households are food insecure in the three northern eastern states of Nigeria, among which 5 percent are severely food insecure. At the state level, the proportion of food insecure households is highest in Borno State (46 percent) and lowest in Adamawa (20 percent).

Between the March and October 2017, the overall proportion of food insecure households decreased by eleven percentage points. The decrease is more pronounced in Borno and Adamawa States where the percentage of food insecure household dropped by 19 percent and 15 percent points respectively. In Yobe, the food security situation deteriorated slightly from 34 to 36 percent.

Displaced households are more affected by food insecurity. The prevalence of severe food insecure among displaced households in Borno is greater than 10 percent compared to 4 percent for host community households. Additionally, displaced households are engaged in the use of asset depleting coping strategies. However, their food security situation is showing growing signs of improvement. For example, in Borno, the proportion of food insecure among internally displaced (IDP) households decreased by seventeen percentage points from 26 percent to 9 percent between March and October 2017.

The positive trend observed is partly attributable to the improved security conditions coupled with the scale up of humanitarian assistance by Government of Nigerian and the international humanitarian community to restore and protect livelihoods coupled with favourable agro-meteorological conditions during the 2017 growing season slight recovery of markets. The Nigerian Government, UN Agencies, and other key humanitarian actors increased their assistance from approximately 600,000 beneficiaries in June 2016 to 3.9 million people as of September 2017.

9.0 RECOMMENDATIONS

As food assistance remains a key priority need among households in the three northeast states, the government and the humanitarian community need to sustain the ongoing assistance in order to prevent a deterioration in the food security situation particularly among households that are vulnerable and most in need. Additionally, health and medical services and education are also high priority needs across BYA and as such, stakeholders should continue to synergize in order to identify specific gaps in these areas and develop appropriate response plans in order to bridge such gaps. IDP households, specifically those living in informal settlements and host communities should as well be targeted for shelter support as it remains a priority need within this group.

Furthermore, to reduce the impact of acute food insecurity in these three states in 2018, food assistance has to be significantly complemented by the implementation of sustainable livelihoods assistance. Stakeholders need to continue peace building efforts (to ensure social cohesion between farmers and herders) and initiate the reconstruction of rural infrastructure through food-for-assets activities in order to encourage the return of displaced populations to their areas of origin.

There is the need for WFP and the humanitarian community to strengthen the gains made in reducing food insecurity since 2016 through effective advocacy and sector coordination to ensure that the current partners provide adequate support to beneficiaries in locations of high food insecurity. It is essential that the humanitarian community prioritise food assistance for LGAs with critical levels of food insecurity and provide food and livelihood support during the lean season when household food security situation is expected to deteriorate further.

Humanitarian actors also need to advocate and lobby the Government of Nigeria for improved security and greater humanitarian access to LGAs that are currently less accessible in order to provide much needed assistance to affected households. In LGAs which have high level of food insecurity, WFP and the humanitarian community should provide nutrition support through supplementary and therapeutic feeding centres to reduce the risk of malnutrition among children age 6 to 23 months

Moreover, government and humanitarian actors should support households with safe access to quality agriculture inputs, water, land, fishing and grazing areas; reconstruction of productive infrastructures; and recovery of agriculture extension services, all in the efforts to harness the agricultural value chain. These interventions should be complemented by women empowerment initiatives in order to reinforce the resilience of female headed households. With the high dependence on natural resources such as firewood among displaced households, assistance modalities such as food-for-assets or cash for assets could be implemented to restore the natural resource asset base of communities. Additionally, specific vulnerable groups such as female headed households, displaced households, poorest households, those with limited livelihood opportunities and land access and households involved in casual labour, should be targeted and prioritized for assistance.

Finally, regular monitoring of the food and nutrition situation in hard-to reach areas of the north east should be sustained through the scale-up of remote monitoring systems, complemented with in-person interviews by Third Party Monitors.

ANNEXES

KEY FACTS ABOUT FOOD SECURITY IN NORTHEAST NIGERIA

34% of households are food insecure
5% severely food insecure

Borno

46% food insecure

↓ **19%** reduction in food insecure households compared to March 2017

Yobe

36% food insecure

↑ **2%** increase in food insecure households compared to March 2017

Adamawa

20% food insecure

↓ **15%** reduction in food insecure households compared to March 2017

51% of displaced households food insecure
9% severely food insecure

Displaced households are three times more likely to be food insecure compared to host population

Reasons for Food Insecurity

Armed Conflict

remains a major constraint to food access in Borno (22%) compared to Yobe (4%) & Adamawa (7%)

Limited Land Access

hampered agricultural practice for 77% of IDP households in camps

High Food Prices

was a major constraint to food access in 29% of households

Extended Dry spell & Early Rain Cessation

affected 13% of households in Yobe during this year's planting season

Pest Infestation

affected 25% of agricultural practicing households

Photo Credit: WFP/Amadou Baraze

In October 2017, WFP and the National Bureau of Statistics with technical support from Federal and States Ministry of Agriculture, FAO, FEWS NET, ACF, Save the Children conducted an Emergency Food Security Assessment (EFSA) to collect information on food security across 19,600 households in 62 local government areas (LGAs) in Borno, Yobe and Adamama.

WFP

Food and Agriculture Organization of the United Nations

FEWS NET
FAMINE EARLY WARNING SYSTEMS NETWORK

nbs
NATIONAL BUREAU OF STATISTICS

ACTION AGAINST HUNGER
ACF INTERNATIONAL

Save the Children

OXFAM

Livelihood Zone

- NG05 Niger and Benue River Floodplain Rice and Fishing
- NG06 Central Plain Yam and Cassava
- NG09 Northeastern Highland Maize, Cocoyam, Potatoes, and Lives
- NG10 North-Central Maize, Sorghum, and Cotton
- NG11 Northern Floodplains Irrigated Rice, Wheat, and Vegetables
- NG12 Northeast Millet, Cowpea, and Sesame
- NG13 Sahel Mixed Cereals and Livestock

NG05 Niger and Benue River Floodplain Rice and Fishing
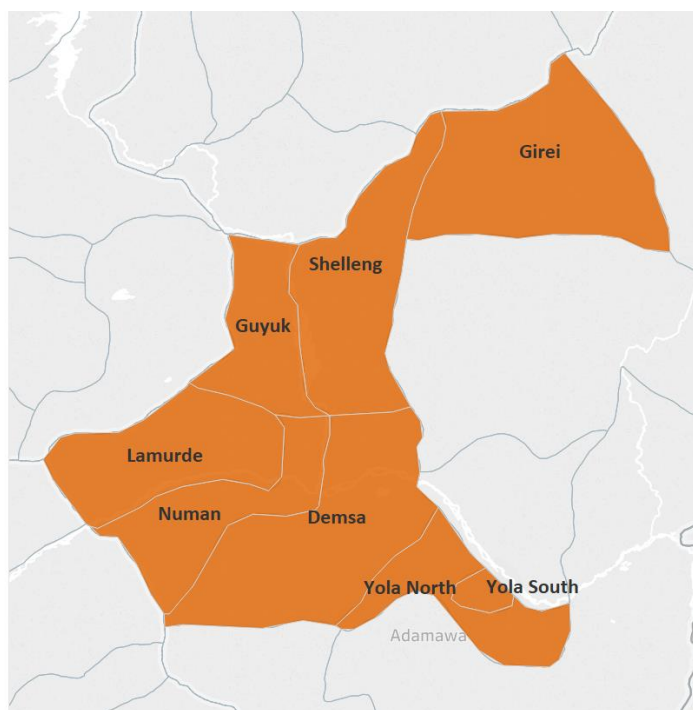
Description of Livelihood Zone

As its name implies, the lowland plains of this riverine zone produce a surplus of rice and fish for Nigerian markets particularly in Lagos, Kano, and Port Harcourt. There are two, relatively equally important cropping seasons with the main harvests in November-January (rice, sugarcane, maize, and vegetables), and the second, off-season harvests in July (second-season rice, maize, and sweet potato). Wealth is primarily determined by ownership of land and canoes, both essential inputs to the economic drivers of the zone, and livestock holdings. Though poor households do not produce enough rice to meet needs year-round, locally produced foods are diverse, and own-produced cassava is commonly available to the poor from own-production during the May-June/July lean season. Shocks in this zone are considered relatively frequent with localized drought, flooding, or conflict every other year. Poor households tend to respond by intensifying the search for labour opportunities both inside and outside the zone, and increasing wild food collection and sale.
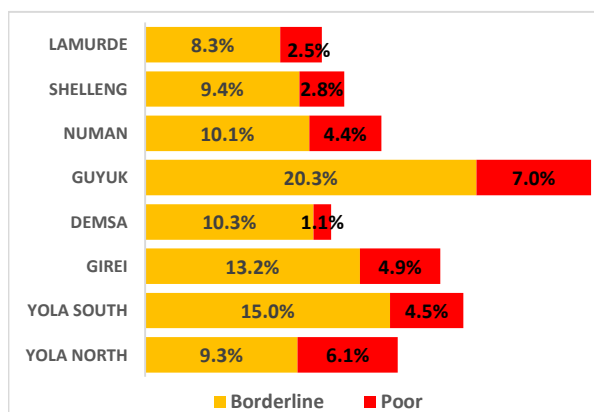
Food Security Status

Total Population	Moderately Food Insecure Population	Severely Food Insecure Population
👐	210.416	37.446
%	15.8%	2.6%

Source: EFSA, Oct 2017; VTS Online
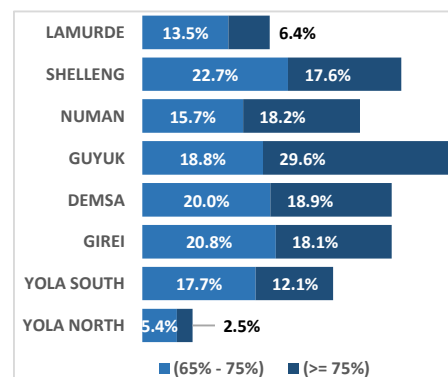
Key Drivers of Food Insecurity

- **48,867** IDPs
- **25%** households very poor and poor;
- **14.4%** of household members chronically ill;
- **26.6%** of households heads are not educated;
- **4.6%** of households practicing fishing or fish farming;
- **27.3%** agricultural households practicing dry season farming;
- **19%** households own less than 0.5 hectare of land;
- **29.3%** households admit this year's harvest less than normal;
- **3.1%** households have members that are daily labourers (agriculture);
- **30.4%** households suffer from high food prices;
- **13.9%** households are female-headed;
- **9.5%** household heads are widowed while 3.4% are separated or divorced.

Prevalence of Borderline & Poor Food Consumption

	Borderline	Poor
LAMURDE	8.3%	2.5%
SHELLENG	9.4%	2.8%
NUMAN	10.1%	4.4%
GUYUK	20.3%	7.0%
DEMSA	10.3%	1.1%
GIREI	13.2%	4.9%
YOLA SOUTH	15.0%	4.5%
YOLA NORTH	9.3%	6.1%

Household Expenditure on Food (> 65 percent)

	(65% - 75%)	(>= 75%)
LAMURDE	13.5%	6.4%
SHELLENG	22.7%	17.6%
NUMAN	15.7%	18.2%
GUYUK	18.8%	29.6%
DEMSA	20.0%	18.9%
GIREI	20.8%	18.1%
YOLA SOUTH	17.7%	12.1%
YOLA NORTH	5.4%	2.5%

Coping Strategies

	crisis coping strategies	emergencies coping strategies
LAMURDE	29.9%	13.4%
SHELLENG	28.7%	23.6%
NUMAN	33.3%	17.6%
GUYUK	26.4%	18.1%
DEMSA	23.2%	31.4%
GIREI	30.3%	25.7%
YOLA SOUTH	17.7%	36.3%
YOLA NORTH	26.0%	15.9%

Agriculture

Access to farmland

LAMURDE	89.2%
SHELLENG	91.7%
NUMAN	71.9%
GUYUK	87.0%
DEMSA	84.0%
GIREI	76.5%
YOLA SOUTH	52.2%
YOLA NORTH	18.7%
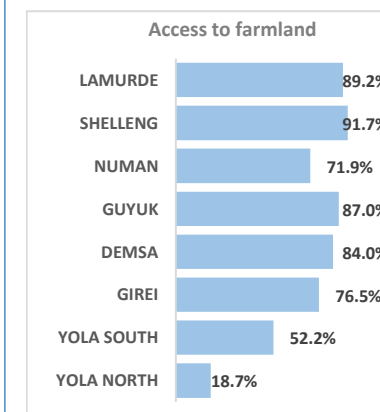
NG06 Central Plain Yam and Cassava

Description of Livelihood Zone

Rainfed, mechanized agriculture drives this economy with tubers (yam and cassava) and legumes (soybean and sesame) as highest priority and cereals (maize and sorghum) and horticultural products (citrus and grafted mangos) in support. Access to land, particularly irrigable land for small-scale rice production and capital for mechanization are key drivers of wealth. Though poor households do rely heavily on crop sales for income most of the year, labour, wild game sales, and firewood sales are particularly important for ensuring food access on markets among the poor between April and June. Fishing is common in the zone, not just in rivers and tributaries accessible to poor households, but also on homestead fish ponds among the better off.

Food Security Status

Total Population	Moderately Food Insecure Population	Severely Food Insecure Population
👪	89,689	16,551
%	17.3%	2.8%

Source: EFSA, Oct 2017; VTS Online

Key Drivers of Food Insecurity

- **1,728** IDPs
- **16%** households very poor and poor;
- **12.2%** household members chronically ill;
- **31.6%** household heads are not educated;
- **0.7%** households practicing fishing or fish farming;
- **13.3%** agricultural households practicing dry season farming;
- **34.4%** households admit this harvest less than normal;
- **19%** households own less than 0.5 hectare of land;
- **5.9%** households have members that are daily labourers (agriculture);
- **31.4%** households suffer from high food prices;
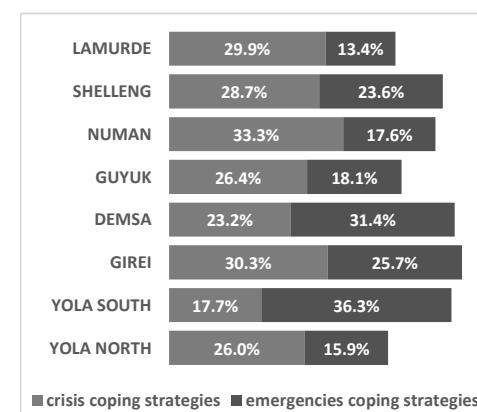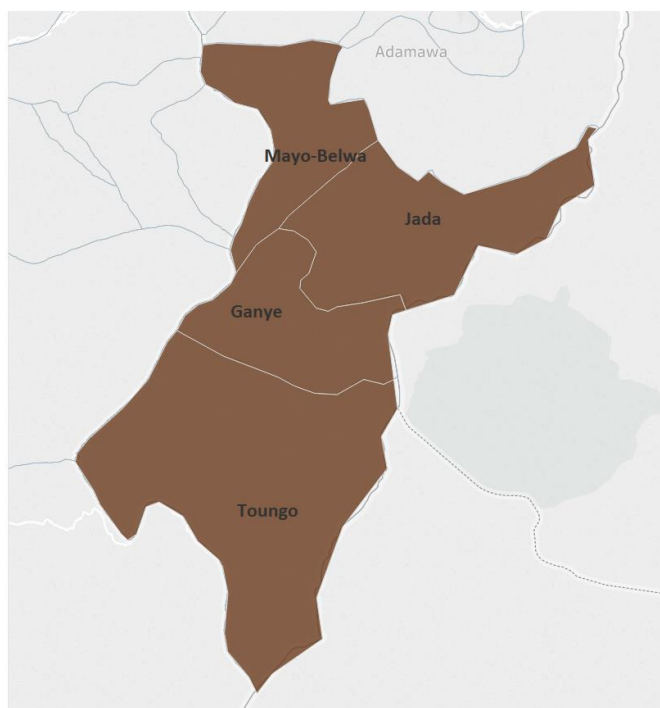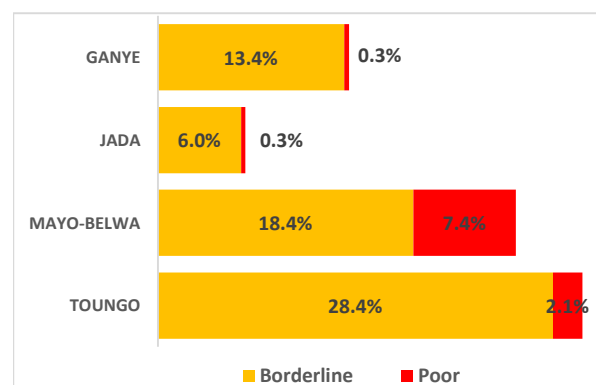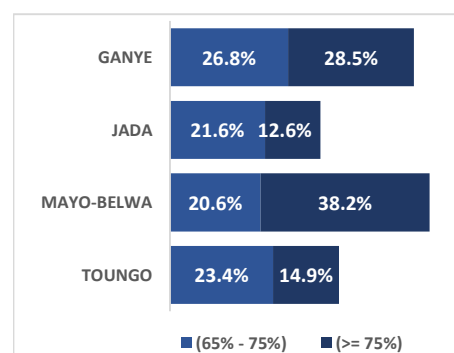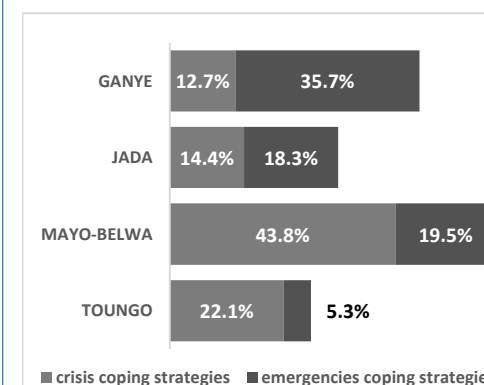- **3.5%** households are female-headed.
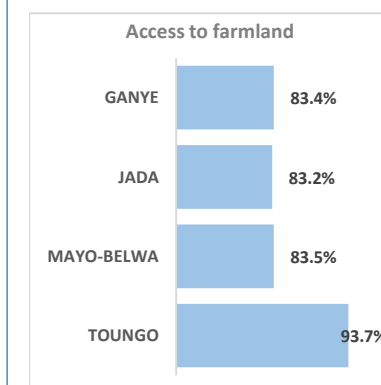
Prevalence of Borderline & Poor Food Consumption

Household Expenditure on Food *(> 65 percent)*
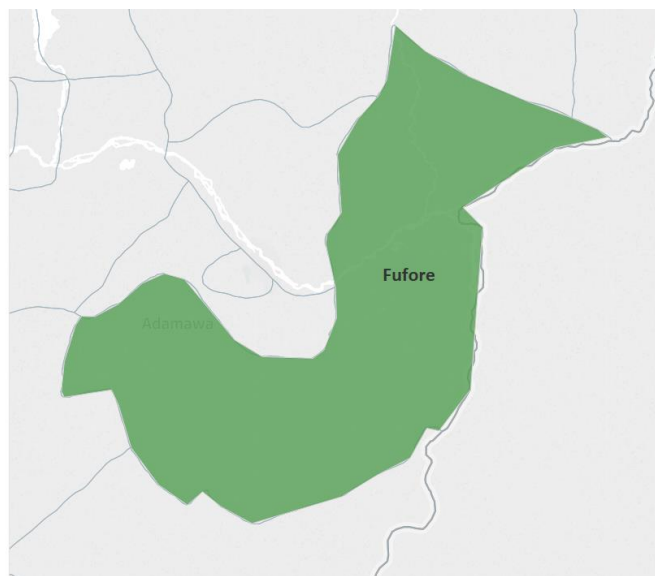

Coping Strategies

Agriculture

NG09 North-eastern Highland Maize, Cocoyam, Potatoes and Livestock

Description of Livelihood Zone

This relatively drier (~850 mm between April and October) grassland plateau is well suited for mixed farming. Wealth in this zone is determined by livestock ownership for traction and income, and access to land and fertilizer. Livestock may be sedentary or transhumant. Poor households, though they own a few small ruminants, rely primarily on rainfed (hand-tilled) agriculture, self-employment (thatching and construction) and unskilled agricultural labour for food and income.

Food Security Status

Total Population	Moderately Food Insecure Population	Severely Food Insecure Population
👐	23.774	1.367
%	10.3%	0.6%

Source: EFSA, Oct 2017; VTS Online

Key Drivers of Food Insecurity

- **5,631** IDPs
- **23.3%** households very poor and poor;
- **11.1%** household members chronically ill and 8.3% have a disability;
- **19.4%** household heads are not educated;
- **10.2%** households practicing fishing or fish farming;
- **17.9%** agricultural households practicing dry season farming;
- **15.8%** households admit this harvest less than normal;
- **2.1%** households own less than 0.5 hectare of land;
- **5.9%** households have members that are daily labourers (agriculture);
- **26.1%** households affected by high food prices;
- **3.6%** households are female-headed;
- **3.3%** household heads are widowed.

Prevalence of Borderline & Poor Food Consumption

FUFORE
- Poor: 2.5%
- Borderline: 10.2%

Legend: ■ Poor ■ Borderline

Household Expenditure on Food (> 65 percent)

FUFORE
- (>= 75%): 13.3%
- (65% - 75%): 25.3%

Legend: ■ (>= 75%) ■ (65% - 75%)

Coping Strategies

FUFORE
- emergencies coping strategies: 11.7%
- crisis coping strategies: 27.2%

Legend: ■ emergencies coping strategies ■ crisis coping strategies

Agriculture

Access to Land

KUKAWA: 57.0%

NG10 North-central Maize, Sorghum and Cotton

Description of Livelihood Zone

The undulating savannahs of this zone support both staple food production (maize, sorghum, and rice) and cash crop production (soybean and cowpea for the poor and cotton for the better off). The high potential for cash crop production supports a healthy demand for animal traction and machinery in the agricultural sector, though poor households continue to use manual labour for cultivation, resulting in lower yields. Land, again, is the primary determinant of wealth. Livestock are important for animal traction, but relatively minor as a source of income.

Food Security Status

Total Population	Moderately Food Insecure Population	Severely Food Insecure Population
👪	484,944	78,827
%	26.2%	3.3%

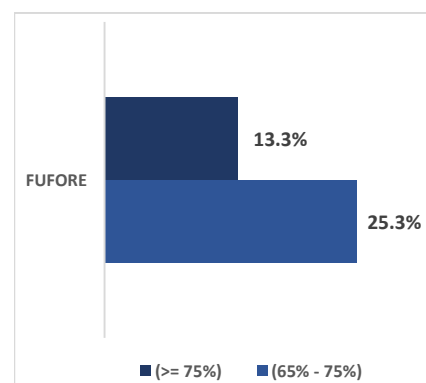Source: EFSA, Oct 2017; VTS Online

Key Drivers of Food Insecurity

- **165,454** IDPs
- **34.9%** households very poor and poor;
- **18.9%** household members chronically ill and 5.3% have a disability;
- **37.4%** household heads are not educated;
- **1.7%** households practicing fishing or fish farming;
- **27.4%** agricultural households practicing dry season farming;
- **17.6%** households admit this harvest less than normal;
- **19.8%** households own less than 0.5 hectare of land;
- **4.1%** households have members that are daily labourers (agriculture);
- **26.4%** households suffer high food prices;
- **10.7%** households affected by insecurity or conflict;
- **11.1%** households are female-headed;
- **8.4%** household heads are widowed.
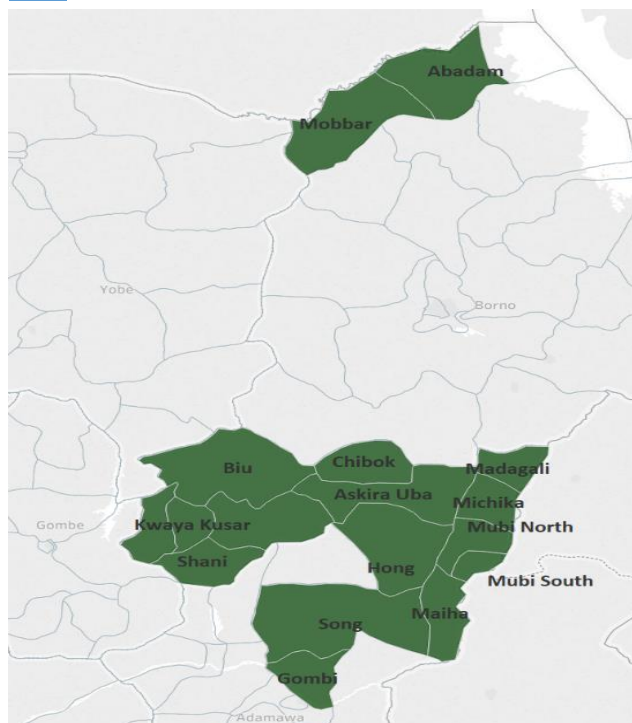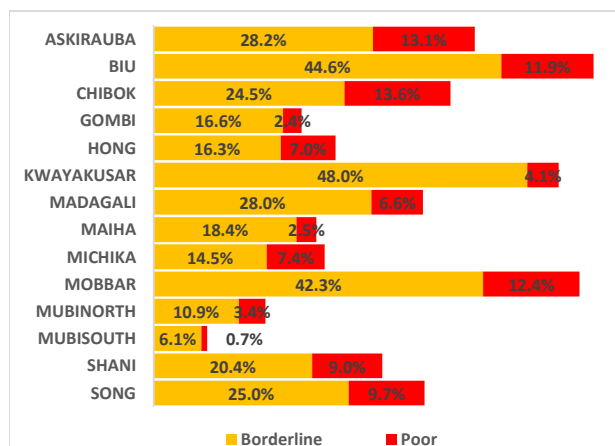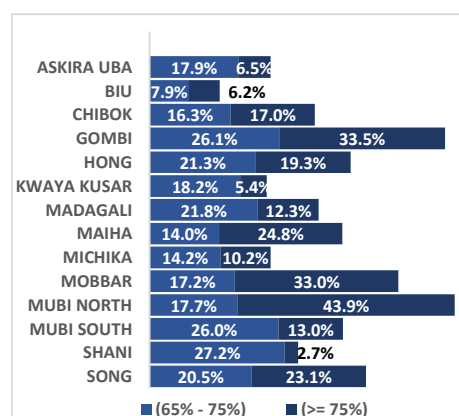
Prevalence of Borderline & Poor Food Consumption

	Borderline	Poor
ASKIRAUBA	28.2%	13.1%
BIU	44.6%	11.9%
CHIBOK	24.5%	13.6%
GOMBI	16.6%	2.4%
HONG	16.3%	7.0%
KWAYAKUSAR	48.0%	4.1%
MADAGALI	28.0%	6.6%
MAIHA	18.4%	2.5%
MICHIKA	14.5%	7.4%
MOBBAR	42.3%	12.4%
MUBINORTH	10.9%	3.4%
MUBISOUTH	6.1%	0.7%
SHANI	20.4%	9.0%
SONG	25.0%	9.7%

Household Expenditure on Food (> 65 percent)

	(65% - 75%)	(>= 75%)
ASKIRA UBA	17.9%	6.5%
BIU	7.9%	6.2%
CHIBOK	16.3%	17.0%
GOMBI	26.1%	33.5%
HONG	21.3%	19.3%
KWAYA KUSAR	18.2%	5.4%
MADAGALI	21.8%	12.3%
MAIHA	14.0%	24.8%
MICHIKA	14.2%	10.2%
MOBBAR	17.2%	33.0%
MUBI NORTH	17.7%	43.9%
MUBI SOUTH	26.0%	13.0%
SHANI	27.2%	2.7%
SONG	20.5%	23.1%

Coping Strategies

	crisis coping strategies	emergencies coping strategies
ASKIRA UBA	52.1%	15.4%
BIU	26.3%	27.1%
CHIBOK	30.6%	24.5%
GOMBI	28.5%	14.0%
HONG	18.2%	30.8%
KWAYA KUSAR	27.7%	20.9%
MADAGALI	14.2%	73.9%
MICHIKA	31.5%	29.5%
MOBBAR	2.6%	34.9%
MUBI NORTH	27.9%	37.8%
MUBI SOUTH	24.9%	39.4%
SHANI	7.8%	23.1%
SONG	33.2%	30.7%

Agriculture

Access to farmland

ASKIRAUBA	84%
BIU	69%
CHIBOK	94%
GOMBI	79%
HONG	84%
KWAYAKUSAR	83%
MADAGALI	60%
MAIHA	94%
MICHIKA	74%
MUBINORTH	53%
MUBISOUTH	64%
SHANI	82%
SONG	90%

NG11 Northern Floodplains Irrigated Rice, Wheat, and Vegetables

Description of Livelihood Zone

Though rainfall varies throughout the zone, the distinguishing feature for livelihoods is the riverine lowlands from which farmers can harvest two crops of rice, maize, and/or wheat per year, the first, main harvest in February to May, and the second in September/October. The proximity of so many bodies of water and high reliance on irrigated cereal production also renders these livelihoods particularly vulnerable to flooding in August/September. The risk of flooding and availability of land may constrain production during the second season. Poor households' reliance on market purchases for food coincides with the least diversity in income-generating opportunities between July and September.

Food Security Status

Total Population	Moderately Food Insecure Population	Severely Food Insecure Population
👐	132,633	15,454
%	17.3%	1.8%

Source: EFSA, Oct 2017; VTS Online

Key Drivers of Food Insecurity

- **19,599** IDPs
- **32.2%** households very poor and poor;
- **25.7%** household members chronically ill;
- **7.6%** household members have a disability;
- **31.1%** household heads are not educated;
- **9.4%** households practicing fishing or fish farming;
- **30.1%** agricultural households practicing dry season farming;
- **30.9%** households admit this harvest less than normal;
- **16.9%** households own less than 0.5 hectare of land;
- **7.9%:** households have members that are daily labourers (agriculture)
- **37.5%** households suffer high food prices;
- **11.5%** affected by insecurity or conflict;
- **8.6%** lost employment;
- **6.3%:** households are female-headed.

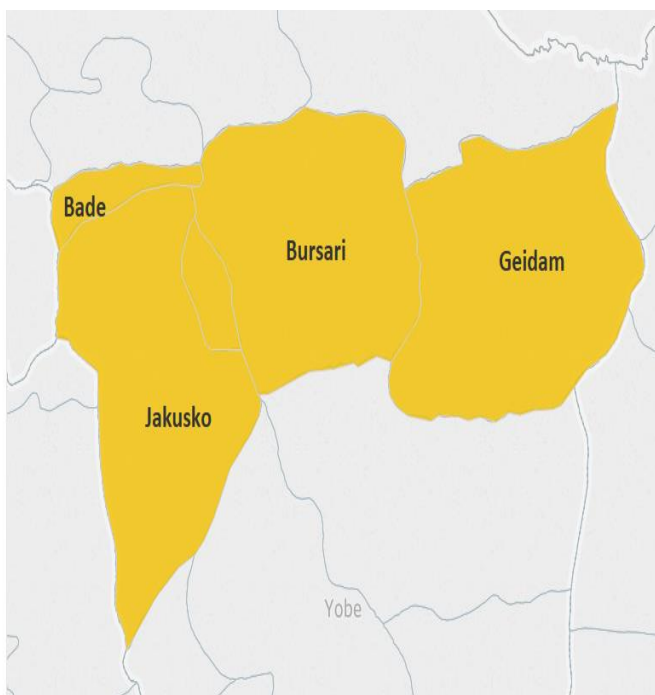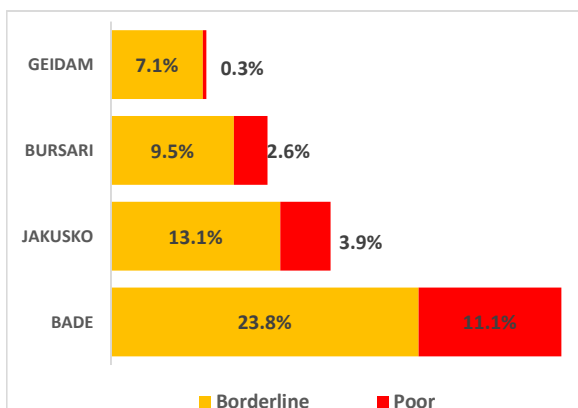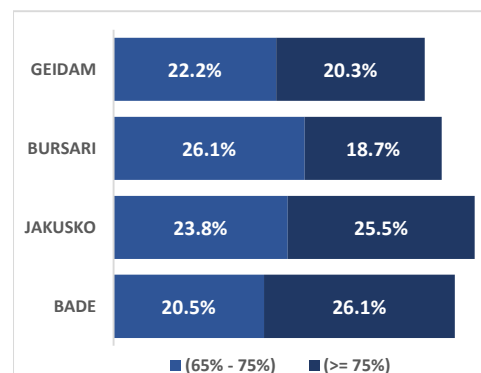### Prevalence of Borderline & Poor Food Consumption

	Borderline	Poor
GEIDAM	7.1%	0.3%
BURSARI	9.5%	2.6%
JAKUSKO	13.1%	3.9%
BADE	23.8%	11.1%

Household Expenditure on Food (> 65 percent)

	(65% - 75%)	(>= 75%)
GEIDAM	22.2%	20.3%
BURSARI	26.1%	18.7%
JAKUSKO	23.8%	25.5%
BADE	20.5%	26.1%

Coping Strategies

	crisis coping strategies	emergencies coping strategies
GEIDAM	34.9%	38.2%
BURSARI	32.2%	43.5%
JAKUSKO	34.0%	16.3%
BADE	33.2%	11.9%

Agriculture

Access to farmland

GEIDAM	80%
BURSARI	92%
JAKUSKO	88%
BADE	59%
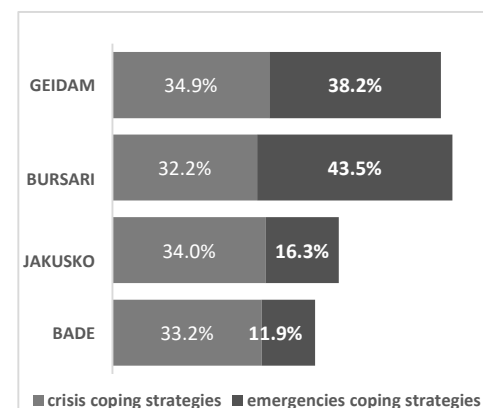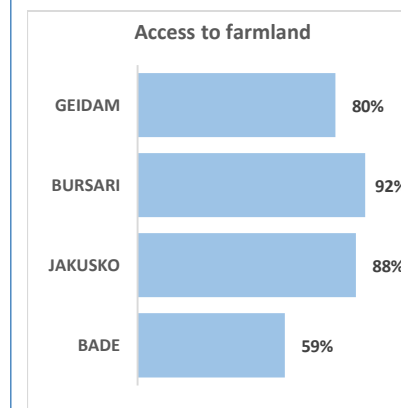
NG12 Northeast Millet, Cowpea, and Sesame

Description of Livelihood Zone

The plains and shores on the Nigerian side of Lake Chad are semiarid (300-800 mm of rainfall between April and September), but are particularly well suited to rainfed millet and cowpea production, which, as it happens, also provides fodder for large cattle markets in Maiduguri. The cattle trade is supplied primarily by cattle from eastern Niger and western Chad and mainly supplies urban markets of Onitsha, Ibadan, and Lagos. Though livestock production is an important secondary activity in this zone, as in zone 13, small ruminant production is relatively more important here than cattle. Sorghum and maize are also produced. As in most semiarid agricultural zones, land is the most significant determinant of wealth. Unskilled labour, self-employment, and crop sales income are insufficient for poor households to be able to finance animal traction or machinery to be able to cultivate more land. The lean season is from June through August.

Food Security Status

Total Population	Moderately Food Insecure Population	Severely Food Insecure Population
👪	1.038.574	383.001
%	41.5%	7.2%

Source: EFSA, Oct 2017; VTS Online

Key Drivers of Food Insecurity

- **895,533** IDPs
- **57.8%** households very poor and poor;
- **14.8%** household members chronically ill & **6.8%** have a disability;
- **37.9%** household heads are not educated;
- **1.1%** households practicing fishing or fish farming;
- **14.3%** agricultural households practicing dry season farming;
- **40%** households admit this harvest less than normal;
- **21.7%** households own less than 0.5 hectare of land
- **18.4%** households own livestock
- **28.4%** households suffer high food prices, **14.5%** affected by insecurity/conflict & **11.7%** lost employment;
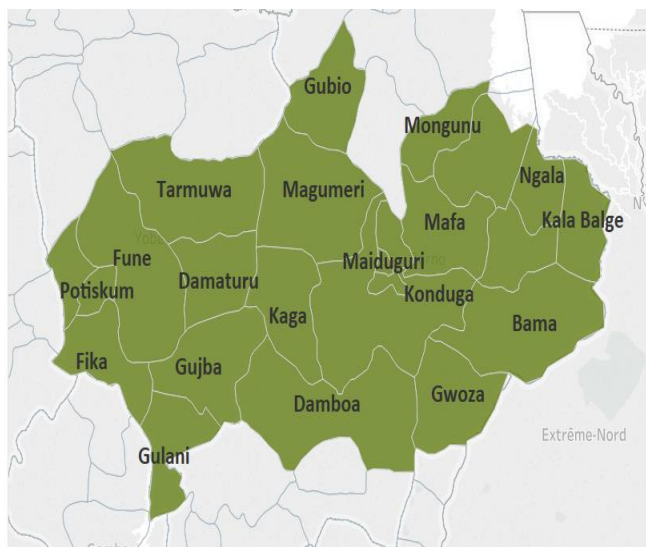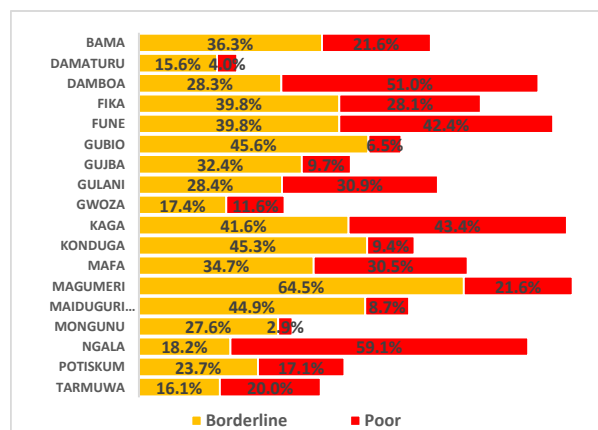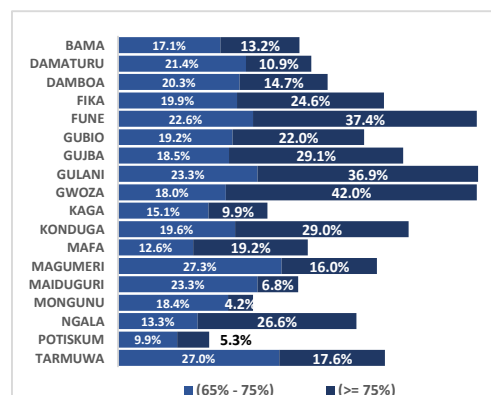- **14.5%** households are female-headed & **9.8%** household heads are widowed;
- **3.8%** households have members that engage in beggary, **3.5%** in sales of natural resources & **3.8%** in daily labour (agriculture)
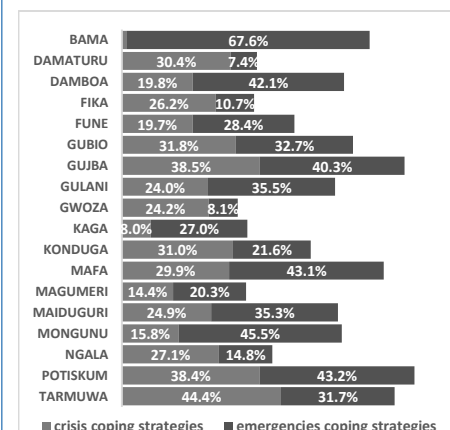
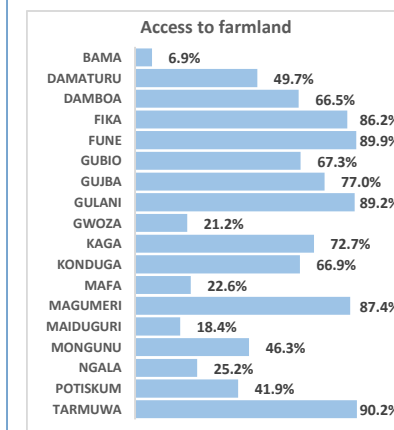### Prevalence of Borderline & Poor Food Consumption

	Borderline	Poor
BAMA	36.3%	21.6%
DAMATURU	15.6%	4.8%
DAMBOA	28.3%	51.0%
FIKA	39.8%	28.1%
FUNE	39.8%	42.4%
GUBIO	45.6%	4.5%
GUJBA	32.4%	9.7%
GULANI	28.4%	30.9%
GWOZA	17.4%	11.6%
KAGA	41.6%	43.4%
KONDUGA	45.3%	9.4%
MAFA	34.7%	30.5%
MAGUMERI	64.5%	21.6%
MAIDUGURI...	44.9%	8.7%
MONGUNU	27.6%	2.5%
NGALA	18.2%	59.1%
POTISKUM	23.7%	17.1%
TARMUWA	16.1%	20.0%

Household Expenditure on Food (> 65 percent)

	(65% - 75%)	(>= 75%)
BAMA	17.1%	13.2%
DAMATURU	21.4%	10.9%
DAMBOA	20.3%	14.7%
FIKA	19.9%	24.6%
FUNE	22.6%	37.4%
GUBIO	19.2%	22.0%
GUJBA	18.5%	29.1%
GULANI	23.3%	36.9%
GWOZA	18.0%	42.0%
KAGA	15.1%	9.9%
KONDUGA	19.6%	29.0%
MAFA	12.6%	19.2%
MAGUMERI	27.3%	16.0%
MAIDUGURI	23.3%	6.8%
MONGUNU	18.4%	4.2%
NGALA	13.3%	26.6%
POTISKUM	9.9%	5.3%
TARMUWA	27.0%	17.6%

Coping Strategies

	crisis coping strategies	emergencies coping strategies
BAMA	67.6%	
DAMATURU	30.4%	7.4%
DAMBOA	19.8%	42.1%
FIKA	26.2%	10.7%
FUNE	19.7%	28.4%
GUBIO	31.8%	32.7%
GUJBA	38.5%	40.3%
GULANI	24.0%	35.5%
GWOZA	24.2%	8.1%
KAGA	8.0%	27.0%
KONDUGA	31.0%	21.6%
MAFA	29.9%	43.1%
MAGUMERI	14.4%	20.3%
MAIDUGURI	24.9%	35.3%
MONGUNU	15.8%	45.5%
NGALA	27.1%	14.8%
POTISKUM	38.4%	43.2%
TARMUWA	44.4%	31.7%

Agriculture

Access to farmland

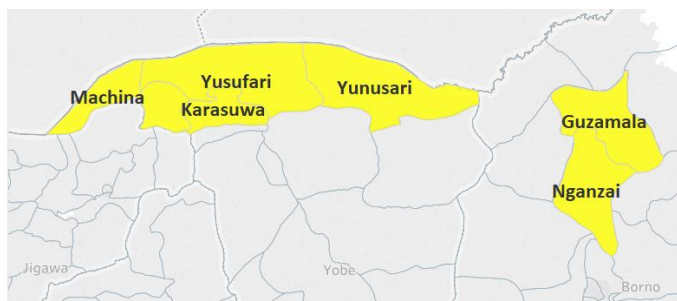|	
BAMA	6.9%
DAMATURU	49.7%
DAMBOA	66.5%
FIKA	86.2%
FUNE	89.9%
GUBIO	67.3%
GUJBA	77.0%
GULANI	89.2%
GWOZA	21.2%
KAGA	72.7%
KONDUGA	66.9%
MAFA	22.6%
MAGUMERI	87.4%
MAIDUGURI	18.4%
MONGUNU	46.3%
NGALA	25.2%
POTISKUM	41.9%
TARMUWA	90.2%

NG13 Sahel Mixed Cereals and Livestock

Description of Livelihood Zone

Relatively fertile, though sandy, soils and relatively reliable rainfall of 400-700 mm/year (June-September) supports rainfed cropping of millet, sorghum, and legumes (cowpea, groundnut, and sesame) as the primary livelihood activity in this zone. Off-season market gardening is common. Livestock sales are a more important source of income than in neighbouring Zone 12, with most households keeping some goats and poultry; better-off households can afford to keep more livestock, including large cattle herds. Poor households lack sufficient land to rely on own production; they purchase food for most of the year. Though they do earn some income from crop sales, particularly during the first couple of months of the harvest, they also rely heavily on on-farm and migrant labour. Better-off households, on the other hand, earn a significant portion of income from livestock and livestock product sales.
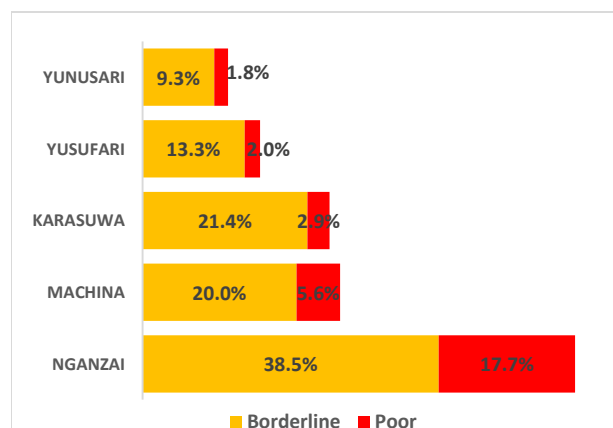
Food Security Status

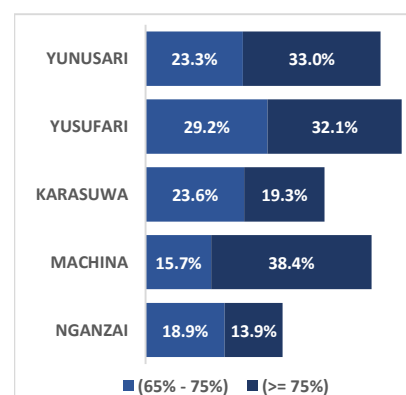| Total Population	Moderately Food Insecure Population	Severely Food Insecure Population
👪	131,928	29,921
%	25.1%	3.7%

Source: EFSA, Oct 2017; VTS Online

Key drivers of Food Insecurity

- **30,645** IDPs
- **61.1%** households very poor and poor;
- **22.1%** household members chronically ill & **5.3%** have a disability;
- **49%** household heads are not educated;
- **0.7%** households practicing fishing or fish farming;
- **17.9%** practicing dry season farming;
- **40.4%** households admit this harvest less than normal;
- **16.3%** own less than 0.5 hectare of land;
- **3.7%** households have members that are daily labourers (agriculture)
- **31.6%** households affected by high food prices
- **9.4%** have lost their employment;
- **7.4%** households are female-headed;
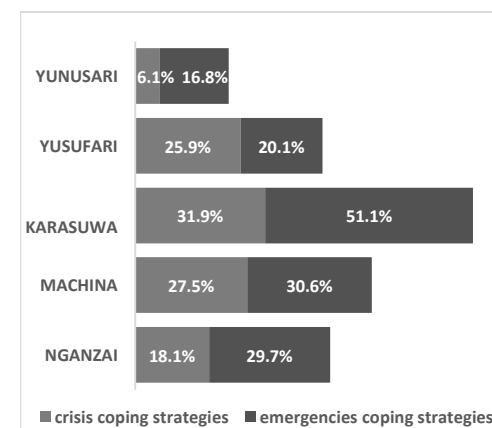- **4.2%** household heads are widowed.

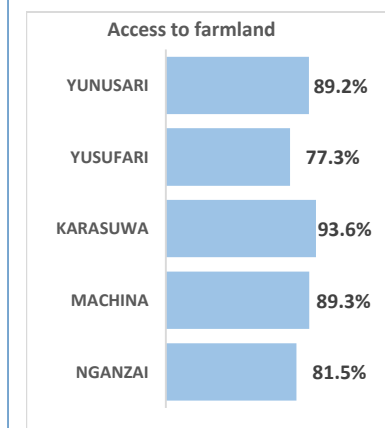### Prevalence of Borderline & Poor Food Consumption

Region	Borderline	Poor
YUNUSARI	9.3%	1.8%
YUSUFARI	13.3%	2.0%
KARASUWA	21.4%	2.9%
MACHINA	20.0%	5.6%
NGANZAI	38.5%	17.7%

Legend: Borderline, Poor

Household Expenditure on Food (> 65 percent)

Region	(65% - 75%)	(>= 75%)
YUNUSARI	23.3%	33.0%
YUSUFARI	29.2%	32.1%
KARASUWA	23.6%	19.3%
MACHINA	15.7%	38.4%
NGANZAI	18.9%	13.9%

Coping Strategies

Region	crisis coping strategies	emergencies coping strategies
YUNUSARI	6.1%	16.8%
YUSUFARI	25.9%	20.1%
KARASUWA	31.9%	51.1%
MACHINA	27.5%	30.6%
NGANZAI	18.1%	29.7%

Agriculture

Access to farmland

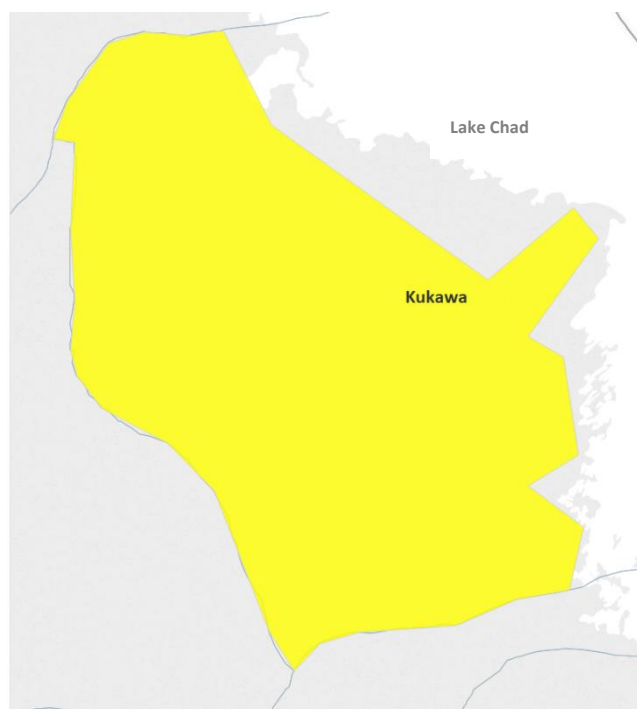| Region	%
YUNUSARI	89.2%
YUSUFARI	77.3%
KARASUWA	93.6%
MACHINA	89.3%
NGANZAI	81.5%

NG13 Sahel Mixed Cereals and Livestock

Description of Livelihood Zone

Relatively fertile, though sandy, soils and relatively reliable rainfall of 400-700 mm/year (June-September) supports rainfed cropping of millet, sorghum, and legumes (cowpea, groundnut, and sesame) as the primary livelihood activity in this zone. Off-season market gardening is common. Livestock sales are a more important source of income than in neighbouring Zone 12, with most households keeping some goats and poultry; better-off households can afford to keep more livestock, including large cattle herds. Poor households lack sufficient land to rely on own production; they purchase food for most of the year. Though they do earn some income from crop sales, particularly during the first couple of months of the harvest, they also rely heavily on on-farm and migrant labour. Better-off households, on the other hand, earn a significant portion of income from livestock and livestock product sales.
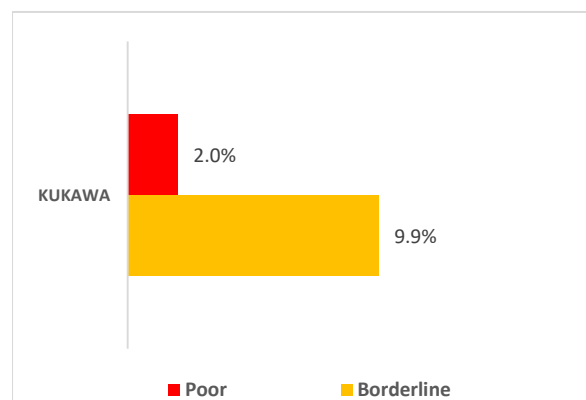
Food Security Status

Total Population	Moderately Food Insecure Population	Severely Food Insecure Population
👐	19,340	1,468
%	21.4%	1.6%

Source: EFSA, Oct 2017; VTS Online

Key drivers of Food Insecurity

- ↻ **13,821** IDPs
- ↻ **48%** very poor and poor;
- ↻ **9.2%** household members chronically ill;
- ↻ **45.7%** household heads are not educated;
- ↻ **25%** households practicing fishing or fish farming;
- ↻ **50.6%** agriculture households practicing dry season farming;
- ↻ **25%** households admit this harvest less than normal;
- ↻ **16.5%** households own less than 0.5 hectare of land & **21.1%** own livestock;
- ↻ **5.3%** households sell natural resources (firewood, charcoal etc.)
- ↻ **8%** households have members are daily labourers (agriculture)
- ↻ **28.8%** households affected by insecurity or conflict;
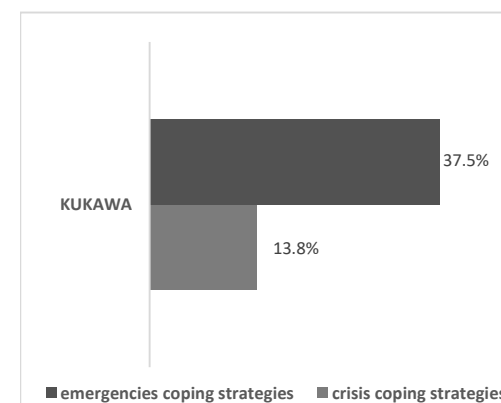- ↻ **13.8%** households are female-headed & **8%** household heads are widowed;

Prevalence of Borderline & Poor Food Consumption

KUKAWA
- Poor: 2.0%
- Borderline: 9.9%

Legend: ■ Poor ■ Borderline

Household Expenditure on Food (> 50 percent)

KUKAWA
- (>= 75%): 28.3%
- (65% - 75%): 16.4%

Legend: ■ (>= 75%) ■ (65% - 75%)

Coping Strategies

KUKAWA
- emergencies coping strategies: 37.5%
- crisis coping strategies: 13.8%

Legend: ■ emergencies coping strategies ■ crisis coping strategies

Agriculture

Access to farmland

KUKAWA: 57%

Lake Chad

Kukawa