

December 13, 2016

A Famine likely occurred in Bama LGA and may be ongoing in inaccessible areas of Borno State

This report summarizes an IPC-compatible analysis of Local Government Areas (LGAs) and select IDP concentrations in Borno State, Nigeria. The conclusions of this report have been endorsed by the IPC's Emergency Review Committee. This analysis follows a [July 2016 multi-agency alert](#), which warned of Famine, and builds off of the [October 2016 Cadre Harmonisé analysis](#), which concluded that additional, more detailed analysis of Borno was needed given the elevated risk of Famine.

KEY MESSAGES

A Famine likely occurred in Bama and Banki towns during 2016, and in surrounding rural areas where conditions are likely to have been similar, or worse. Although this conclusion cannot be fully verified, a preponderance of the available evidence, including a representative mortality survey, suggests that Famine (IPC Phase 5) occurred in Bama LGA during 2016, when the vast majority of the LGA's remaining population was concentrated in Bama Town and Banki Town. Analysis indicates that at least 2,000 Famine-related deaths may have occurred in Bama LGA between January and September, many of them young children. Famine may have also occurred in other parts of Borno State that were inaccessible during 2016, but not enough data is available to make this determination.

While assistance has improved conditions in accessible areas of Borno State, a Famine may be ongoing in inaccessible areas where conditions could be similar to those observed in Bama LGA earlier this year. Significant assistance in Bama Town (since July) and in Banki Town (since August/September) has contributed to a reduction in mortality and the prevalence of acute malnutrition, though these improvements are tenuous and depend on the continued delivery of assistance. Food assistance may also be preventing Famine in other IDP concentrations. However, given that large areas of Borno State remain inaccessible to all civilian actors, including humanitarian partners, and given the severity of food insecurity observed in those adjacent areas that humanitarians can reach, it is possible that Famine (IPC Phase 5) is ongoing in inaccessible parts of Borno State. However, without additional information, this cannot be confirmed or disproven.

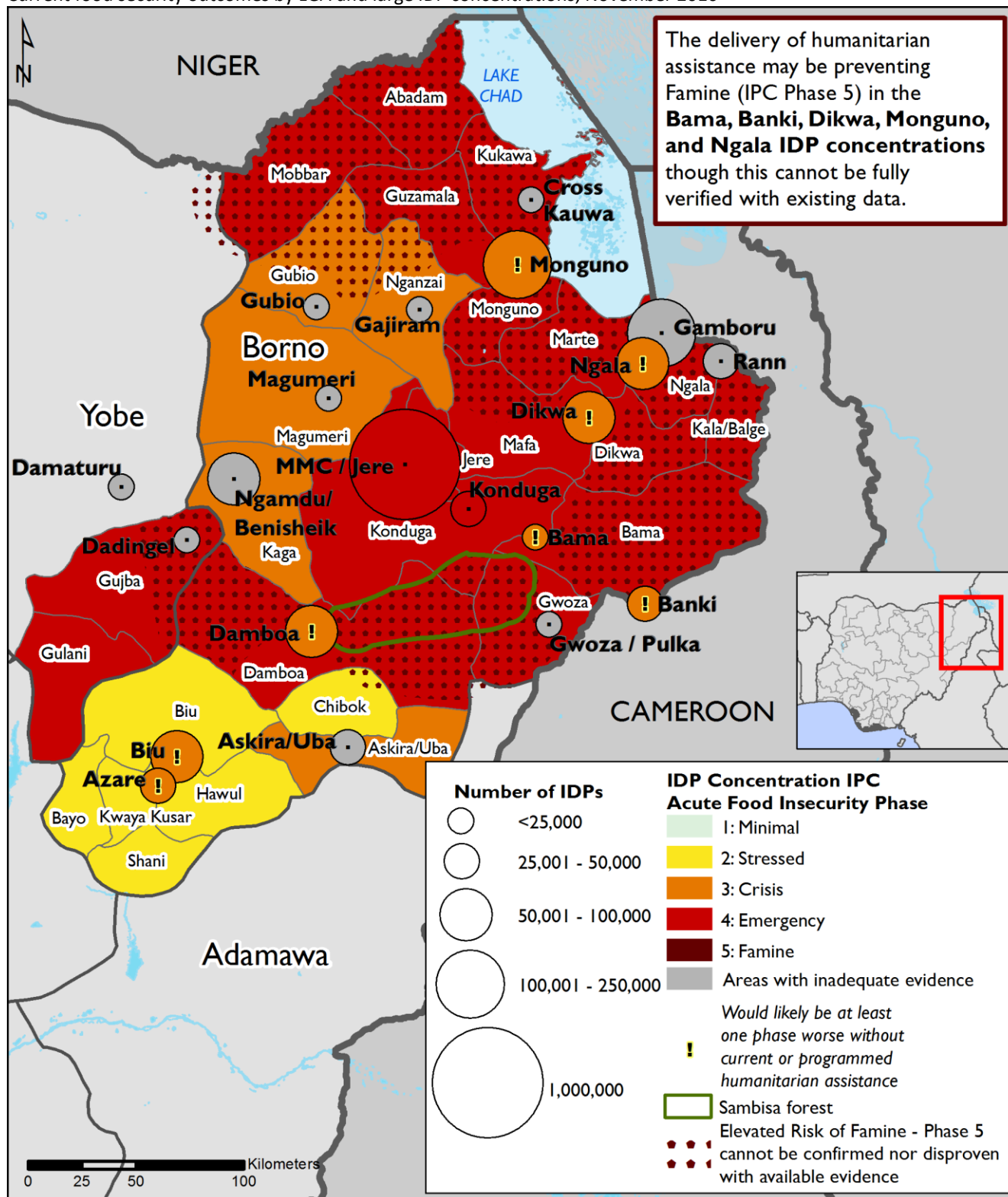
The risk of Famine in inaccessible areas of Borno State will remain high over the coming year. Given current levels of food insecurity, significantly below-average crop production, disrupted livelihoods, and very high staple food prices, millions of people are likely to remain severely food insecure over the October 2016-September 2017 consumption year. Food security outcomes are likely to be especially severe in inaccessible areas where livelihoods are disrupted and populations are cut-off from markets, health care, and assistance. In these areas, levels of malnutrition and mortality are likely to remain elevated given the combination of this food insecurity, a high probability of disease outbreaks, and inadequate humanitarian response.

Assistance is likely to continue preventing Famine in many IDP concentrations, but sustained humanitarian access is critical. In a worst-case scenario, where conflict cuts off areas that are currently accessible and dependent on assistance, the likelihood of Famine in these areas would be high.

The current response is insufficient to meet the very large emergency assistance needs in Borno State. Regardless of whether a Famine is occurring, the severity of current food insecurity is extreme and the size of the food insecure population is very large. Large areas of the state are classified as Emergency (IPC Phase 4), meaning that at least one in five households faces large food consumption gaps, the prevalence of acute malnutrition is very high, and excess mortality is likely, especially among young children. The October 2016 Cadre Harmonisé estimates that 4.7 million people are in need of emergency food assistance in Borno, Adamawa, and Yobe states of northeast Nigeria, 3 million of them in Borno State alone. While large-scale emergency operations are ongoing in the northeast, only about 1 million people have received food assistance in 2016. Displaced people and those trapped in inaccessible areas face the worst food security outcomes.

How is Famine classified? According to the IPC, a Famine (IPC Phase 5) has occurred when the following three criteria are met: 1. At least 20 percent of households in the area of concern (e.g. admin unit, camp) are classified in Catastrophe, meaning that households have an extreme lack of food and/or other basic needs even with full employment of coping strategies; 2. The prevalence of acute malnutrition is very high, above 30 percent if measured using weight-for-height or above 17 percent if measured using Mid-Upper Arm Circumference (MUAC); and, 3. Excess mortality has occurred, as evidenced by a Crude Death Rate (CDR) greater than 2/10,000/day.

Current food security outcomes by LGA and large IDP concentrations, November 2016



ANALYTICAL APPROACH AND REVIEW

This report summarizes an IPC-compatible analysis of Local Government Areas (LGAs) and select Internally Displaced Person (IDP) concentrations in Borno State, Nigeria. This analysis follows a [July 2016 multi-agency alert](#) which warned of Famine and builds off of the [October 2016 Cadre Harmonisé analysis](#) (Annex Figure 1) which concluded that *“Since the CH analysis ... does not give enough information about the reality in the LGAs, it was identified that further analysis is needed for Borno State where two senatorial zones had been found in Emergency (Phase 4), to determine whether or not there is actually Famine (CH Phase 5) occurring in some areas of the state.”*

In response to this need for additional analysis, and in light of newly available information, FEWS NET conducted an IPC-compatible analysis for Borno. The process began by compiling all available information on food consumption, livelihoods, nutritional status, and mortality, as well as information on contributing factors, including FEWS NET analysis of crop production, market functioning, accessibility, and humanitarian assistance in the northeast. Given the lack of up-to-date LGA-level population statistics, FEWS NET also conducted an analysis of available displacement information to estimate the current population of LGAs in Borno. FEWS NET staff used this collection of information to classify LGAs and camps in Borno using IPC-compatible analysis protocols.

IPC Review: This report has undergone an IPC Real Time Quality Review (RTQR). Undertaken by staff from the IPC Global Support Unit, Action Against Hunger, and the UN World Food Programme, the review aimed to assess both the plausibility of the analysis and the degree to which IPC protocols were followed. This review concluded that the evidence presented converged towards the report’s conclusions. However, the RTQR noted that the analysis was constrained by the limited availability and quality of food security data. For example, in Bama LGA, though rapid field assessments, reports from local authorities, and multiple mass screenings all suggested very high levels of acute malnutrition, no representative nutrition surveys have been conducted in this area during 2016. Based on these two conclusions, the RTQR recommended that the analysis be forwarded on to the IPC’s Emergency Review Committee (ERC) for a final determination.

The IPC’s ERC is a four-member group comprised of emergency food security and nutrition analysis experts. The purpose of the ERC is to provide final vetting of IPC or IPC-compatible analyses that propose that Famine has occurred, may occur in the future, or is only being prevented by the provision of humanitarian assistance. Following its review, key conclusions of the ERC include the following:

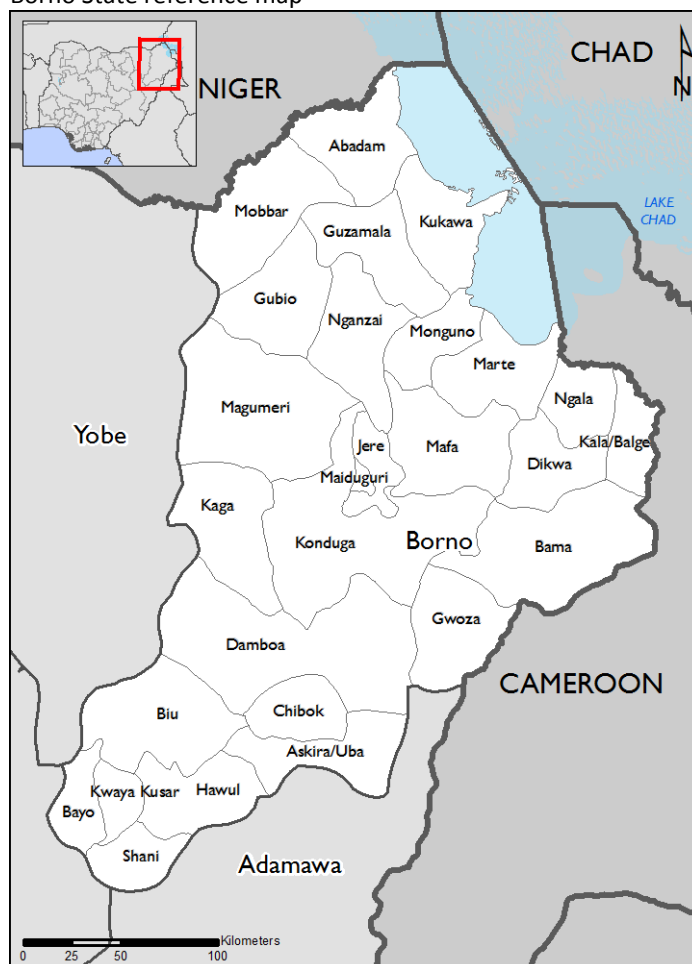
1. **There is enough evidence to classify an Elevated Likelihood that a Famine occurred in Bama and Banki towns**, and is likely to have occurred in specific enclaves in the inaccessible areas of Borno State where similar conditions persisted if caveats identified by the ERC are respected.
2. **There is enough evidence to state that there is an Elevated Likelihood that a Famine is on-going in inaccessible areas of Borno State** if caveats identified by the ERC are respected.
3. **There is enough evidence to state that there is an Elevated Risk that a Famine will continue in inaccessible areas of Borno State** if caveats identified by the ERC are respected.

Annex Figure 21 provides more detail on the caveats/qualifications identified by the ERC. In particular the ERC emphasized that these conclusions rest on a reasonable, but unverified assumption that significant populations remain in inaccessible areas and face conditions (e.g., access to food, income, and humanitarian assistance) similar to those found in other areas that were once inaccessible (e.g., Bama LGA).

CURRENT CONTEXT

Significant conflict/insecurity persists: The Boko Haram insurgency in northeast Nigeria has been ongoing since 2009 and armed conflict continues between insurgents, fighters from Boko Haram splinter groups, and the Nigerian Armed Forces. Most of the fighting is centered around the Sambisa Forest, Lake Chad, and along the borders with Cameroon and Niger (Annex Figures 3 and 4). During 2016 the Nigerian Armed Forces, who are leading a Multinational Joint Task Force (MNJTF), have retaken control of most LGAs in Adamawa and Yobe states, as well as those in southern Borno since early 2016; however, many LGAs in central and northern Borno State remain inaccessible to humanitarian actors and civilians as military operations continue (Annex Figure 5). Many areas of central and northern Borno State recaptured by MNJTF have been somewhat accessible since June 2016; effective control is mostly along major roads and in bigger towns. These areas remain targets of Boko Haram attacks and raids, which have occurred on a weekly basis throughout Borno State since June, according to the Armed Conflict Location and Event Data Project ([ACLED](#)). There has been a reported increase in attacks by Boko Haram since November, as the dry season sets in, particularly of suicide bombers targeting IDP camps and some reports of Boko Haram checkpoints along roads to extort food and fuel from travelers. Insecurity remains a significant impediment to humanitarian access, often requiring military escorts on roads where threats of attack remain high. Humanitarian supplies, including food stocks, remain a target of Boko Haram raids and attacks.

Borno State reference map



Source: FEWS NET

Large-scale displacement/population movement has occurred; analysis assumes that significant populations remain in inaccessible areas: Insecurity and conflict have caused significant population displacement since 2014, with the largest number of IDPs currently in Maiduguri Metropolitan Council (MMC) and Jere LGAs. IDPs across Borno State live in host communities, official camps, and unofficial settlement areas with estimates of both IDP and resident populations constantly fluctuating as populations move away from areas with ongoing conflict and as IDPs return to their LGAs of their origin. Many camps are monitored by the International Organization for Migration's Displacement Tracking Matrix (IOM DTM) and by the Nigerian Emergency Management Agency (NEMA). Estimates in unofficial settlements are also made by humanitarian partners, coordinated by the UN Office for the Coordination of Humanitarian Affairs (OCHA). The total number of IDPs in the Northeast Region as of the October 2016 IOM DTM report was 1.8 million, of which 1.4 million were in Borno State and one million were in and around Maiduguri, the state capital.

There are no known official LGA population estimates accounting for recent displacement in Borno State. Most partners reporting population numbers use a mix of official projections from 2006 census data and IDP population reports from IOM DTM and OCHA. There is especially limited information on the number of people who may remain in inaccessible LGAs. Of the 27 LGAs in the state, fifteen remain fully or partially inaccessible and a range of estimates have been proposed for the population remaining in these areas. FEWS NET analysis suggests that between 400,000–800,000 people may remain in inaccessible areas of northern and central Borno (See Annex Figure 20 for a description of this analysis).

Harvests significantly below average: Nigeria's National Agricultural Extension and Research Liaison Services (NAERLS) was unable to conduct a crop survey for the 2016/17 season. In order to estimate production in Borno State, FEWS NET considered

agro-climatic conditions and yield indicators ([SARRA-H factor](#)) provided by CILSS/AGHRYMET and estimates of area planted provided by local Agricultural Development Programme (ADP) staff. Based on these data, FEWS NET estimates that the area planted was significantly below average, declining by 25, 45, and 60 percent for maize, sorghum, and millet, respectively. Overall coarse grain production (maize, millet, and sorghum) in Borno State is estimated at 520,000 MT for the 2016/17 production and marketing year (Table 1). This remains 50 percent below the five-year average, but represents a 50 percent increase from the 2015/16 season. The increase compared to last year is attributed to increases in the areas of maize and sorghum planted in southern Borno State, which accounted for 61 percent of total area planted in the 2016/17 season. Staple food production in northern and central Borno is likely to have remained substantially below 50 percent of average.

Table 1. Borno State grain production estimates ('000 MT)

Crop	5-YR Average	2015/16	2016/17	Change vs. 2015	Change vs. 5-YR avg
Maize	432	109	227	+108%	-47%
Sorghum	677	216	277	+28%	-59%
Millet	52	23	17	-29%	-68%
Total	1,161	347	520	+50%	-55%

Source: FEWS NET estimates based on NAERLS, CILSS/AGHRYMET, and ADP data

Access to typical food and income sources remains limited: Typically, livelihood activities in Borno State center on agricultural production (maize, sorghum, millet, with harvests in October for rain-fed crops), as well as livestock-raising in the north (Annex Figure 2). After three seasons of severely restricted agricultural production, the 2016/17 season has shown some recovery, mostly in southern Borno, where households have been able to replenish food stocks with October harvests. For households with access to land, production is still subject to government security restrictions on growing tall crops, fertilizer use, and regular movement to farm plots in rural areas. Landless IDPs and populations in inaccessible areas are expected to have a fourth consecutive season of virtually no crop production. Livestock production also remains significantly below average following reports of cattle raiding by Boko Haram insurgents, security restrictions on grazing across the state, and household reports of selling off cattle.

Income opportunities also remain limited. IDPs in MMC and Jere have some access to casual labor opportunities, while many IDPs in camps and in LGA headquarters across Borno State have reported main income sources as humanitarian assistance, selling of firewood or charcoal, farming, and begging. Many IDPs remain dependent on host communities, whose resources are also stretched thin. Remittances and community support are helping some IDPs; however the continued depreciation of the Naira (NGN) is reducing the value of these transfers.

Prices likely to remain very high despite some improvements in market functioning: In Maiduguri and Biu, the two market towns monitored in Borno State with available price data, local cereal and cash crop prices declined seasonally in September and October with the onset of the harvest season, but remain significantly above the two- and five-year averages. Imported rice prices in Maiduguri continued increasing in October and stabilized in Biu. Overall, imported rice prices are being driven by high prices in source markets due to the depreciation of the Naira, which has put upward pressure on imported commodity prices, and continuous demand from humanitarian interventions. However, household demand for imported rice has decreased with the improved availability and relatively lower prices of local cereals, which has prevented imported rice prices from increasing further. For local commodities, traders reported selling off remaining stocks from the previous year, and households have sold their produce given the very high current purchase prices (a phenomenon seen throughout Nigeria). Despite well-stocked markets, prices for nearly all commodities are more than double their respective 2015 and two- and five-year average levels (Annex Figures 9 and 10). This is [due in part to the declining value of the Naira](#), which has depreciated against the dollar on both the official and parallel markets by 32 and 22.3 percent, respectively, since June (Annex Figure 11).

Market activities varied considerably across Borno State in October (Annex Figure 8). Markets have minimal or no activity along the corridors linking Maiduguri with the easternmost market towns of Banki Town (security restrictions) and Gamboru (completely inaccessible). Market activities are likewise heavily constrained in key border towns in the inaccessible LGAs of Mobbar and Abadam. Elsewhere, moving to the southern and western parts of Borno State, markets and trading corridors are currently operating at nearly normal levels (Maiduguri) or experiencing some disruptions (Biu). Markets in border areas of Cameroon are currently operating at normal levels, while those in neighboring areas of Chad and Niger are heavily disrupted.

Humanitarian access remains limited and current funding is insufficient to meet needs: In Borno State, humanitarian assistance through both general food distributions (GFD) and cash/voucher programs is ongoing. Between August and November, the main actors distributing food assistance, in addition to the National Emergency Management Agency (NEMA) and the State Emergency Management Agencies (SEMA), included the UN World Food Programme (WFP), Save the Children, Norwegian Refugee Council (NRC), International Committee of the Red Cross (ICRC), Catholic Relief Services (CRS), Mercy Corps, International Rescue Committee (IRC), Action Against Hunger, Jumatul Nasir Islam Borno, and Première Urgence Internationale (November 4W, OCHA). Most actors are providing assistance via cash/voucher; however, WFP and ICRC are both distributing sizable amounts of in-kind food assistance. With few exceptions, assistance from WFP and ICRC is delivered on a monthly or bi-weekly basis. Food distributions in Borno are generally focused on IDPs in official settlements and camps, with only small portions of assistance targeted for host communities, returnees, and IDPs outside of camps.

Overall, available information on food assistance deliveries suggests that between August and October 2016, humanitarian partners reached an average of 740,000 people per month in Borno (Annex Figure 12), roughly 25 percent of the 3.2 million people identified by the Cadre Harmonisé as in need of urgent food assistance. Among those who did receive assistance, the transfer was large, with beneficiaries receiving, on average, cash, vouchers, or food equivalent to 60 percent of their daily caloric needs (Annex Figure 13). In absolute terms, the greatest amount of humanitarian assistance was delivered in Maiduguri LGA, however, given the high level of food insecurity in this LGA, assistance is reaching only 30 percent of IDPs with about 25 percent of their caloric needs. Conversely, in Bama, Dikwa, Kukawa, Hawul, Damboa and Monguno, ongoing assistance is reaching over 70 percent of the estimated IDP population, with an average of 50 percent of their caloric needs met (Annex Figure 14). Across the state, humanitarian partners are also implementing blanket supplementary feeding programs targeted at under five children. Little humanitarian assistance was reported to be distributed in southern LGAs between August and October (Annex Figure 15), however needs in these LGAs are determined to be relatively lower.

Humanitarian partners are often dependent on military escorts to access camps by road and UN helicopter services to access them by air. In many inaccessible areas of northern and eastern Borno, insecurity is preventing the delivery of humanitarian assistance and often disrupting access to IDP populations who are often completely dependent on assistance.

CURRENT OUTCOMES

State summary: Food availability and access remain restricted for most of Borno State, despite the ongoing harvest period, due to ongoing, widespread conflict and insecurity, which drive displacement, limit livelihoods, and disrupt market functioning. Food access has been further limited by very high staple food prices related to the sharp depreciation of the Naira since late 2015. These issues have now persisted for an extended period of time, eroding the coping capacity and physical condition of local populations. Finally, humanitarian response has been relatively small in comparison to the severity and magnitude of assistance needs due to a combination of security-related access restrictions, inadequate funding, and a historically limited humanitarian footprint in Nigeria.

Currently, much of northern, eastern, and central Borno State is classified as Emergency (IPC Phase 4) (Annex Figure 16). According to the IPC, Emergency is characterized by large food consumption gaps resulting in very high acute malnutrition and excess mortality. In addition, the IDP concentrations at Monguno, Ngala, Dikwa, Bama Town and Banki Town are classified as Crisis (IPC Phase 3), but only because of current humanitarian assistance provision (Annex Figure 17). In the absence of this assistance, it is possible that Famine (IPC Phase 5) could occur although this cannot be fully verified with existing data. Additionally, large areas of Borno State remain inaccessible to humanitarian actors (Annex Figure 5). Given the severity of food security, nutrition, and mortality outcomes from accessible areas, and given the poor physical condition of people coming from the inaccessible areas, it is possible that Famine (IPC Phase 5) is occurring in large portions of northern and central Borno State. However, in the absence of more information, the presence of Famine (IPC Phase 5) cannot be confirmed or disproven.

Overall, an assessment of available evidence suggests that approximately 3 million people are in Crisis (IPC Phase 3) or worse and require emergency food assistance in Borno State. This is consistent with the conclusions of the recently completed Cadre Harmonisé for Nigeria. Of the 3 million in Crisis or worse, approximately 1 million people are estimated to be in Emergency (IPC Phase 4) or worse. In addition, 400,000 to 800,000 people are estimated to be living in inaccessible areas of Borno State (Annex Figure 20). Famine (IPC Phase 5) may be occurring in these inaccessible areas, however given the extremely limited information, it is not possible to determine the number of households facing Catastrophe (IPC Phase 5) in these areas.

Table 2. Estimated size of the acutely food insecure population in Borno State

Current population in IPC Phase 3 or higher	Current population in IPC Phase 4 or higher	Estimated population remaining in inaccessible areas
~3 million	~1 million	400,000 – 800,000

Areas of Concern

1. Bama LGA

A Famine likely occurred in Bama and Banki towns during 2016, and in surrounding rural areas where conditions are likely to have been similar, or worse. Assistance since July has contributed to a reduction in levels of mortality and malnutrition.

Bama LGA is located in eastern Borno State and borders Cameroon. Prior to current conflict, an estimated 350,000 people lived in Bama. However, due to ongoing conflict in this area, most of the population left Bama during 2014 and 2015 for Maidugari, other areas of Nigeria, or Cameroon. As of June 2016, much of the LGA's remaining population was concentrated in Bama Town in the west (~15,000 - 24,000 people) and Banki Town in the east (~15,000 people). Currently, humanitarian partners estimate that the combined population of Bama and Banki towns remains near 40,000 people, though the population of Banki has risen while the population of Bama has declined. Anecdotal reports and an analysis of IOM displacement data suggest that the rural areas of this LGA are largely deserted.

Food security: Both Bama Town and Banki Town were largely cut off from trade and humanitarian aid from late 2015 through mid-2016. Markets did not function in these two towns and according to a June UN interagency report on Banki Town, none of the typical sources of food and income, including trade, agriculture, and livestock rearing, were possible due to insecurity. The report also indicated that the "vast majority of food and seed stocks have been burned." While the Nigerian military provided some protection for IDPs sheltered in Bama and Banki towns, it was unable to provide substantial humanitarian assistance during this period. This combination of isolation and lack of food stocks resulted in extreme food gaps for IDP households.

According to the IPC, one key indicator of Famine is when at least 20 percent of households in an area face an extreme lack of food and other basic needs. While no formal surveys were undertaken, qualitative reports from a number of assessments indicate that this threshold was likely crossed in Bama LGA:

Bama Town IDP Camp June 2016: "...the most challenging issue is lack of food and lack of sanitation...24,462 people are without food, medical (support) or toilet facilities." (June 21 OCHA Report)

Bama June 2016: "Bama is largely closed off" ([MSF Press release](#))

Banki IDP Camp June 2016: "The vast majority of food reserves and seeds have been burned. Food support remains the main concern of the military authorities, as well as IDPs encountered by the assessment team whilst in Banki Town." ([UN Interagency assessment](#))

Bama June 2016: "They have had minimal access to food for some time, and are suffering the effects of severe, long-term hunger. The level of food insecurity was critical. Needs in [Banki Town and Pulka] are known to be even more critical than in Bama town" (OCHA report)

Banki IDP Camp July 2016: "...literally no presence of food stocks in the houses visited...families are cooking dry goat skin in order to fill the stomach...Extreme deprivation. Traditional water container and also few jerry cans are present in the town and in the houses, but the rest is missing (mats, blankets, shoes, spare clothes are nonexistent or in extremely small quantities). A number of families are apparently forced to sell few belongings (cooking pots) in order to gain access to cash" ([MSF Rapid Assessment report](#))

Bama Town IDP Camp September 2016: "These people can't provide for themselves, so they're totally dependent on outside help for food." ([MSF Press release](#))

Since July/August, access to food has improved, but only because of the delivery of emergency food assistance. WFP reporting indicates that it has provided ~35,000 people/month with 50 percent rations between August and October. MSF is providing health and nutrition services and has provided food to 3,600 households.

Malnutrition: Following IPC protocols, Famine is indicated when the prevalence of global acute malnutrition (GAM) exceeds 30 percent (if measured by weight-for-height z-score) or 17 percent (if measured by MUAC). No representative nutrition

surveys have been conducted in Bama LGA during the past year. However, during five MUAC screenings conducted in Bama Town between April and July, the proportion of children identified as acutely malnourished ranged from roughly 30-60 percent. Since August, three mass screenings have indicated a decline in the prevalence of acute malnutrition, likely due to increased response by humanitarian partners. Nutrition data collection has been more limited in Banki Town. Health center screening from early 2016 reported very high levels of acute malnutrition and a July screening conducted by MSF reported that 27.3 percent of 1,820 children screened were acutely malnourished, 14.4 percent severely (MUAC).

Table 3. 2016 Nutrition information from Bama LGA

Date	Location	Source	Key Results	Notes	Indicative IPC Phase	Reliability Score ¹
Unknown months 2016	Banki IDP Camp	UNICEF	58% acutely malnourished, 25.6% severely acutely malnourished (MUAC) (n=6,535)	Health center screening	Phase 5	R1
April 2016	Bama IDP Camp	UNICEF	39.1% acutely malnourished, 11.9% severely acutely malnourished (MUAC) (n=1,727)	Mass screening	Phase 5	R1
Jun 2016	Bama IDP Camp	MSF	66% acutely malnourished, 39% severely acutely malnourished (MUAC) (n=466)	Camp evacuees in need of immediate medical assistance	Phase 5	R0
Jun 2016	Bama IDP Camp	MSF	46% acutely malnourished, 19% severely acutely malnourished (MUAC) (n=804)	Rapid assessment. Children were randomly selected but age information is not available	Phase 5	R1/R2
Jun 2016	Bama IDP Camp	UNICEF	51.9% acutely malnourished, 25% severely acutely malnourished (MUAC) (n=1,881)	Mass screening	Phase 5	R1
Jul 2016	Banki IDP Camp	MSF	27.3% acutely malnourished, 14.4% severely acutely malnourished (MUAC) (n=1,820)	Mass screening as part of polio vaccination campaign	Phase 5	R1
Aug 2016	Bama IDP Camp	MSF	15.5% acutely malnourished, 4.6% severely acutely malnourished (MUAC) (n=3,293)	Mass screening	Phase 4	R1
Sep 2016	Bama IDP Camp	MSF	16.0% acutely malnourished, 5.3% severely acutely malnourished (MUAC) (n=1,877)	Mass screening	Phase 4	R1
Oct 2016	Bama IDP Camp	MSF	9.2% acutely malnourished, 2.0% severely acutely malnourished (MUAC) (n=2,058)	Mass screening	Phase 3	R1

Mortality: The IPC considers a Crude Death Rate (CDR) greater than 2/10,000/day as an indicator of Famine. During June and July 2016, a series of reports suggested that mortality had exceeded this threshold, especially during the early part of the year (Table 4). These reports were based on health center reporting, grave counting, observations by the Nigerian military, and some small scale, non-representative data collection by MSF. These reports were then supported by a representative mortality survey conducted by MSF in Banki Town in September. This survey estimated a CDR of 3.0/10,000/day and an Under 5 Death Rate (U5DR) of 5.6/10,000/day during the previous two months. A late October survey, also conducted by MSF, reported a CDR of 0.67/10,000/day, with the sharp drop in mortality likely due to the significant food, nutrition, and WASH support provided in September and October.

¹ Following IPC protocols, evidence of food security outcomes are assigned one of three reliability scores: Not Reliable (R0), Somewhat Reliable (R1), Reliable (R2), or Very Reliable (R3). Reliability scores are based on the source of the data, the methods used for data collection, and time/location relevance of the data. Evidence not considered at least "Somewhat Reliable" is not used for direct classification of areas or households and the inclusion of "Not Reliable" data in this analysis is for contextual purposes. IPC-compatible analysis also considers information on "contributing factors" like food prices, access to income earning opportunities, crop production levels, displacement, and conflict.

Table 4. 2016 Mortality information from Bama LGA

Date	Location	Source	Key Results	Notes	Indicative IPC Phase	Reliability Score ¹
Jun 2016	Banki IDP Camp	OCHA	"The number of people dying has decreased from ten to fifteen a day to three or four per day."	OCHA multi-agency report	Phase 4 (Phase 5 previously)	R1
Jun 2016	Bama IDP Camp	MSF	"We were told on certain days more than 30 people were dying"	Rapid assessment among IDPs remaining in town, quote attributed to camp resident. MSF has estimated this IDP population at 15,000-24,000	Phase 5	R0
			1,233 graves (480 children) counted in the vicinity of the camp. MSF and FEWS NET report that this grave site existed for one year or less, suggesting a CDR of 1.4 - 2.25/10,000/day (FEWS NET calculation).		Phase 4/5	R1
		Camp Health Post	188 deaths reported from May 23 to June 21, mostly from malnutrition or diarrhea, suggesting a CDR of 2.6/10,000/day during this period (FEWS NET calculation).	MSF expects that deaths were under reported.	Phase 5	R1
Jun 2016	Bama IDP Camp	UNICEF	18 deaths recorded at health facility from 6/26-7/1, suggesting a CDR of 1.25/10,000/day over six-day period (FEWS NET calculation).		Phase 4	R1
Jul 2016	Banki IDP Camp	MSF	CDR of 4.16/10,000/day during the last six months and an U5DR of 6.2/10,000/day (CI 4.4 – 8.0)	Based on rapid interviews with 143 households, not representative	Phase 5	R1
Sep 2016	Banki IDP Camp	MSF	CDR 3.0/10,000/day, U5DR 5.6/10,000/day (n=675)	Representative mortality survey, 58 day recall	Phase 5	R2
Oct 2016	Banki IDP Camp	MSF	CDR 0.67/10,000/day, U5DR 1.7/10,000/day (n=898)	Representative mortality survey, 43 day recall	Phase 3	R2

Conclusion: Access to Bama LGA has been extremely difficult throughout much of 2016. This lack of access, in combination with the priority placed on providing critical, lifesaving assistance, has limited the collection of representative food security, nutrition, and mortality data. As a result, severity of food insecurity in Bama during 2016 cannot be fully verified. Nonetheless, a convergence of available information suggests that Famine (IPC Phase 5) likely occurred in Bama LGA during six to nine months of 2016. Multiple reports indicate severe lack of food among a large proportion of households, multiple screenings suggest that acute malnutrition exceeded Famine thresholds, and a representative survey (consistent with a variety of other data) indicates that mortality was above 2/10,000/day as recently as September. In fact, reports suggest that prior to June/July, when more significant assistance began to reach Bama Town and Banki Town, the mortality rate may have been many times higher than the IPC's Famine threshold. The severity of outcomes in Bama Town and Banki Town, including the very poor physical condition of new arrivals, suggests that populations in surrounding rural areas are likely to have been even worse off. Assuming an LGA population of 50,000 people and an LGA-wide CDR of 2/10,000/day between January and September, a conservative scenario, at least 2,000 Famine-related deaths may have occurred in this area during 2016.

Since June/July, levels of malnutrition and mortality have dropped, due to the evacuation of the most severely malnourished people by humanitarian agencies, the provision of significant food, WASH, and medical assistance, and possibly because the most vulnerable people have already perished. Between August and October, WFP assistance reached ~80 percent of IDPs in both Bama Town and Banki Town with 40 percent and 70 percent of kcal needs, respectively (Table 6). Additional food assistance has also been provided by NEMA and MSF, though details on these transfers are not available. Given the apparent decline in malnutrition and mortality and the provision of assistance, these areas are classified as IPC Phase 3!² However, these improvements remain tenuous given that they rely heavily on the continued provision of external emergency assistance. An increase in conflict that disrupts humanitarian access could result in a return to Famine in these areas. In addition, the severity of food insecurity that occurred in Bama Town and Banki Town prior to the provision of assistance suggests that Famine could be ongoing in inaccessible areas where conditions could be similar to those observed in Bama

² Following IPC protocols, an "!" is used to identify areas where the food security classification would likely be at least one phase worse in the absence of humanitarian assistance.

LGA earlier this year. This includes rural areas of Bama, Dikwa, Gwoza, and Kala/Balge LGAs, where humanitarian access is limited and conflict continues. Further analysis of Famine risk in inaccessible areas is detailed in part four below.

2. Maiduguri/Jere Camps

Severe food insecurity, elevated levels of acute malnutrition, and excess mortality among a very large displaced population

Approximately 1 million people are displaced in greater Maiduguri (Maiduguri MC and neighboring areas of Jere and Konduga), the largest metropolitan area of the northeast. Less than one quarter live in camps (Annex Figure 19), with the majority of displaced families residing in host communities. Access to income-earning activities is somewhat available (daily labor/agriculture labor, petty trade), however purchasing power for key staple foods remains restricted by limited incomes and high prices. Displaced families often remain highly dependent on humanitarian assistance (in-kind distributions or cash/voucher programs) or community support to meet their basic food needs. Additionally, adequate access to health, water, sanitation and hygiene remains a large concern for both families in camps and host communities.

In May 2016, WFP, with support from FEWS NET, conducted an Emergency Food Security Assessment in Maiduguri, which found the city to be in Crisis (IPC Phase 3) with significant populations in Emergency (IPC Phase 4) based on an analysis of food consumption (HHS, FCS, rCSI), livelihoods coping, and malnutrition indicators. Survey results suggest displaced households were worst affected.

Assessments conducted since May continue to highlight concern for the food security of displaced households in greater Maiduguri. Data from the October IOM DTM Nigeria Round XII dataset indicate that displaced households in two-thirds of settlements surveyed in Maiduguri MC and Jere are primarily reliant on market purchase for their food needs. While regular food distribution was indicated in about half of formal camps surveyed, there were very rarely regular distributions of food assistance to displaced households in informal settlements. Livestock holdings and access to agricultural activities were low for displaced families; however, most had access to some source of income-generating activities. In September, UNICEF nutrition screenings found *Critical* levels of acute malnutrition among children screened by MUAC in Maiduguri MC and Jere. In Maiduguri, 11.0 percent of children screened (n=195,391) were acutely malnourished, and 13.5 percent of children screened in Jere (n=127,940) were acutely malnourished.

August/September MSF surveys in two camps near Maiduguri indicated particularly high levels of malnutrition and mortality, especially among young children. The prevalence of Global Acute Malnutrition (MUAC/edema) was 24.9 percent (9.5 percent SAM) in Muna Garage and 19.9 percent (4.3 percent SAM) in Custom House. These results reflect an “Extreme Critical” situation according to the IPC for Acute Malnutrition. In Muna Garage, the CDR for the entire recall period was 1.01/10,000/day and the U5DR was 3.71/10,000/day. In Custom House, the CDR for the entire recall period was 1.17/10,000/day and the U5DR was 3.70/10,000/day. A CDR of 1/10,000/day indicates an Emergency (IPC Phase 4).

Mortality rates among IDPs increased once households reached the camps, especially among children. In Muna Garage, the CDR increased to 1.11/10,000/day and the U5DR increased to 5.13/10,000/day. In Custom House, the CDR increased to 1.91/10,000/day (95% CI 1.48-2.47) and the U5DR increased to 8.38/10,000/day. This increase may have been partially driven by seasonal factors, but also suggests very poor camp conditions. Overall, more than 50 percent of total recorded deaths and more than 70 percent of child deaths occurred at the camps. In addition, in both camps, the proportion of children under five years of age was alarmingly low among the survey population (~15 percent in both camps). While information gathered during the survey cannot explain why the proportion was so low, it is possible that this reflects high levels of mortality among children prior to December 2015, the beginning of the survey recall period.

Following these two surveys, MSF provided “mass intervention in terms of targeted food distribution, nutritional screening, and seasonal malaria chemoprophylaxis” and reported that “Interventions of other health and food actors in Maiduguri also started to scale-up in September 2016.” The level of mortality in camp for Custom House from the August/September survey is particularly alarming, however it appears likely that ongoing humanitarian intervention has contributed to maintaining the CDR below 2/10,000/day. Although the camp is classified in Emergency (IPC Phase 4), humanitarian assistance is likely preventing many from experiencing Catastrophe (IPC Phase 5). Muna Garage camp is classified as Emergency (IPC Phase 4).

While not all camps in Maiduguri are expected to face quite as concerning food security outcomes as Muna Garage and Custom House, frequent reports from Maiduguri continue to highlight difficult situations for displaced households in the city. IDPs subject to security-related movement restrictions have limited access to livelihood opportunities and markets, leaving

them dependent on assistance. Food security and nutrition data from surveys in and around Maiduguri, as well as partner assessments, indicate that many displaced families in greater Maiduguri are experiencing severe food insecurity in line with Emergency (IPC Phase 4). Though the proportion of households facing Emergency may be lower than in other parts of Borno, the extremely large size of the IDP populations in MMC/Jere (nearly 1 million people) mean that humanitarian needs are enormous. As is suggested by the MSF assessment in Muna Garage and Custom House camps, even though there are no humanitarian access nor movement constraints in greater Maiduguri, high levels of acute food insecurity have occurred in greater Maiduguri. Close attention is needed for all settlement locations in greater Maiduguri to ensure that these populations are not being overlooked.

3. Camps where Famine has likely been averted to date

The delivery of humanitarian assistance has mitigated food insecurity and may be preventing Famine (IPC Phase 5) in the Bama, Banki, Dikwa, Monguno, and Ngala IDP concentrations though this cannot be fully verified with existing data.

Due to ongoing conflict and insecurity, large populations of displaced people have concentrated in many LGA Headquarters. Options for growing food and earning income are very limited and market functioning is often disrupted. As a result, much of the available food consumption and nutrition information is indicative of IPC Phase 4 and 5 (Table 5). IDP concentrations in central and northern Borno are of greatest concern.

Table 5. Available information on select IDP concentrations

Location	Date	Source	Outcome	Key Results	Indicative IPC Phase	Reliability Score ¹
Ngala IDP Camp	Sep 2016	FEWS NET Survey (n=540)	Food consumption	HHS: 4-6 – 1%, 2-3 – 77%	Phase 3	R2
				HDDS: 1-2 – 60%, 3 – 24%, 4+ 16%	Phase 5	R2
	Oct 2016	IOM DTM report	Food consumption	No access to market or livestock, access to income and planting, regular food distribution	n/a	Contr. Factor
	Sep 2016	MSF Screening (n=2,317)	Nutrition	28.1% acutely malnourished, 10.2% severely acutely malnourished (MUAC)	Phase 5	R1
	Oct 2016	MSF Screening (n=8,227)	Nutrition	22.0% acutely malnourished, 8.5% severely acutely malnourished (MUAC)	Phase 5	R1
Monguno town	Jun 2016	ALIMA Screening (n=12,190)	Nutrition	32% acutely malnourished, 13% severely acutely malnourished (MUAC)	Phase 5	R1
	Aug 2016	ACF Survey (n=498)	Food consumption	HDDS: 0-3 – 56.4%	Phase 5	R2
			Nutrition	27.3% (22.9-32.3) GAM, 8.7% SAM (WHZ)	Phase 4	R2
			Mortality	CDR: 0.48 (0.19-1.19), U5DR: 1.02 (0.19-5.43)	Phase 3	R2
	Oct 2016	IOM DTM report	Food consumption	Access to markets. Irregular access to income, planting, livestock, or food distribution	n/a	Contr. factor
Dikwa town	Apr 2016	UNICEF Screening (n=9,113)	Nutrition	58.8% acutely malnourished, 2.0% severely acutely malnourished (MUAC)	Phase 5	R1
	Oct 2016	IOM DTM report	Food consumption	No access to planting or livestock, access to markets and income. Irregular food distribution.	n/a	Contr. factor
	Oct 2016	MSF (n= 16,339)	Nutrition	7.2% acutely malnourished, 2.0% severely acutely malnourished (MUAC)	Phase 2/3	R1

However, available data suggest that humanitarian assistance is mitigating the worst food insecurity for displaced households in many IDP camps in Borno State. Table 6 provides a summary of assistance received in these camps over the August-October period. The analysis summarized in Table 6 was calculated by combining all available data on humanitarian aid distributed (cash, voucher and in-kind) to a given town between August and October and calculating a monthly average. In-kind general food distributions and blanket supplementary feeding programs were converted from metric tonnage to energy (kcal) based on the caloric value of the individual commodities in the distributions. All vouchers were assumed to provide 60 percent of household calorie needs. To determine the number of beneficiaries reached, the beneficiaries of all distribution programs in a given town were summed. It was assumed that, aside from Blanket Supplementary Feeding Programs, there was no

overlap in beneficiaries between food assistance programs. If a program reported in terms of the number of households reached, a household size of six was assumed. The total caloric value provided by assistance in a town was then evaluated against the caloric needs of all beneficiaries reached. As a general rule, FEWS NET assumes that assistance is likely to have changed the phase classification when more than half of the population of concern has received a transfer equivalent to at least 20 percent of daily energy needs.

In addition to the above analysis, partner reports suggest a heavy reliance on food assistance among IDPs in northern Borno camps, including Monguno and Dikwa. In Ngala, the assistance delivery information provided in Table 6 is somewhat less compelling, indicating that food aid has provided ~70 percent of caloric needs for only ~35 percent of IDPs. However, this information is complemented by the results from a September FEWS NET survey which indicate that food aid was the primary source of food for 95 percent of surveyed households.

Given the scale of food assistance being provided in Ngala, Dikwa, and Monguno, current food consumption outcomes are likely equivalent to Crisis (IPC Phase 3). However, the severity of nutrition and food consumption data collected from these camps in recent months suggests that in the absence of this assistance, extreme food deficits, equivalent to Famine (IPC Phase 5), could occur. The availability of additional, high quality information on food consumption, malnutrition and mortality would allow this elevated risk of Famine to be verified.

Table 6. Average assistance flows to selected IDP concentrations in Borno State (August-October 2016)

Town	IDP population estimate	Beneficiaries reached, Aug-Oct average	% of estimated IDP population reached	% of Beneficiary energy (kCal) needs met	Has assistance likely changed the phase?
Monguno	105,000	154,256	146%	106%	Yes
Dika	69,422	70,500	102%	71%	Yes
Cross Kauwa	18,000	31,500	175%	50%	Yes
Ngala	79,000	28,500	36%	71%	Possibly
Bama	13,000	10,296	79%	39%	Yes
Banki Town	31,353	24,790	79%	72%	Yes
Damboia	57,000	90,900	160%	35%	Yes
Biu	22,878	30,000	131%	31%	Yes
Azare	35,465	27,000	76%	35%	Yes

Source: Various

Partner information on Cross Kauwa, Pulka and Gwoza camps suggests that significant deliveries of food assistance have been made to these IDP populations. However, no information on food security outcomes is available in these camps so no statement can be made about the impact of assistance on acute food security phase classifications. Similarly, food security data on Rann camp is limited, however available information on humanitarian assistance shows that no partners have been able to complete delivery of food assistance to this camp since August. This suggests that the level of assistance would not be enough to change the acute food security phase classification if data were available. Given that available information suggests that humanitarian assistance provision is limited and neighboring areas are experiencing high levels of acute food insecurity, it is likely that extreme levels of acute food insecurity are occurring in Rann.

Displaced households in Biu, Azare, and Damboa have greater access to humanitarian assistance to meet their food needs as compared to those in northern and central LGAs. Additionally, they have relatively greater market access due to better access to income-earning opportunities and better market functioning. Camps in these areas are in Crisis (IPC Phase 3!); however, should humanitarian assistance provision end, they would be in Emergency (IPC Phase 4).

4. Inaccessible areas

There is an Elevated Risk that Famine is ongoing in inaccessible areas of Borno State. The risk of Famine will remain high over the coming year.

Information on food security outcomes remains very limited in areas that are inaccessible to humanitarian and civilian actors (Annex Figure 5). Populations in these areas remain cut off from markets, and active conflict is severely disrupting participation in typical livelihoods activities, including farming and pastoralism, for remaining residents. Availability of and access to food, as well as other basic needs, are likely to be extremely limited as in neighboring accessible areas, which have

similar livelihoods patterns. Reports have highlighted the severity of food insecurity in inaccessible and newly accessible areas. [OCHA reported on August 31st](#) that “Inaccessible communities are in desperate need of food, clean water, and sanitation and health services.” Other reports have highlighted the poor nutrition status of IDPs coming from inaccessible areas across the state:

[UNICEF \(July\)](#): Although evidence suggests an alarming situation among the populations in these newly liberated areas; screening data of new arrivals supports the view that the malnutrition situation among populations still ‘inaccessible’ could be worse. Recent screening data collected over 7 screening exercises in Muna Camp show that SAM and GAM proportions among the camp population is relatively lower at 7 per cent and 31 per cent respectively, compared to screening data of the new arrivals from Kaleri settlement, Mafa LGA with SAM and GAM at 15 per cent and 45 per cent respectively. These LGAs are still inaccessible to humanitarian actors indicating severe food insecurity in newly liberated areas and deteriorating humanitarian situation.

Anonymous partner (October): Trends in GAM/SAM rates fluctuate significantly in Ngala, Dikwa, and Muna Garage. When new arrivals come to camps, levels spike and then come down with provision of treatment.

[MSF \(November\)](#): The latest intervention of the mobile MSF team in Bama happened from 19 to 22 October. They distributed millet, beans, oil and soap to 1,800 families with children under five. A screening of 2,058 children for malnutrition now demonstrates 2.0 per cent SAM and 7.7 per cent MAM. This is about the same rate recorded in September, with 22 new SAM cases, mainly new arrivals.

Security and access remain precarious across all inaccessible areas and it remains probable that extreme levels of acute food insecurity are occurring, with high levels of acute malnutrition and an increased risk of excess mortality likely. Famine (IPC Phase 5) may be occurring in these areas, though without additional information this cannot be confirmed or disproven. While it is unclear how many people remain in these inaccessible areas, FEWS NET analysis estimates this population to be between 400,000 and 800,000 people (Annex Figure 20). The following LGAs in northern and central Borno, and in Yobe State, remain fully or partially inaccessible due to ongoing insecurity:

Northern: Abadam, Mobbar, Guzamala; northern parts of Kukawa, Nganzai and Gubio; and rural areas of Marte and Monguno

There is almost no information available from these LGAs. ACLED reports that Boko Haram attacks and military offensives continue to occur. IOM reports that in late November, IDP populations from Kukawa, Monguno, and Marte were streaming into IDP camps in Southern Nganzai to escape ongoing violence. Traders and IDPs report that Boko Haram has set up check points along major roads and is extorting food and fuel from travelers and residents. Although humanitarian access to Monguno Town remains adequate at the moment, IDP populations in Kukawa, Guzamala, and Nganzai have unreliable access to assistance.

Although information on the situation in inaccessible areas is limited, available information from neighboring, accessible areas remains extremely concerning. An ACF SMART survey in August in Monguno, which is accessible to humanitarian actors, found that food consumption was severely restricted in the town and GAM approached the Famine threshold. The November IOM report noted many IDPs cited lack of food as the reason they were not returning to their villages of origin. As conflict has likely severely limited household access to livelihoods in inaccessible areas, and these areas receive no humanitarian intervention, it is expected they face at least similar if not worse outcomes as neighboring, accessible areas.

Central South: Bama and large areas of rural Gwoza, Damboa and Gujba in Yobe State along the Borno border

The Sambisa Forest, which remains a stronghold of Boko Haram, runs through these LGAs. Although major towns and roads remain somewhat accessible, Boko Haram continues to conduct raids and attacks against populations in these LGAs. Humanitarian actors rely on military escort to access many of the IDP populations they serve in these LGAs, and access in the last three months has often been temporarily interrupted by security threats. As of November, MSF reported the regular arrival of new IDPs to Damboa Town from surrounding villages and reports from both IDPs and escapees from these areas indicate that Boko Haram is actively maintaining control of some populations. Little information exists about populations outside of the major towns in Gwoza and Bama LGAs, although data and common perception indicate that there is likely only small, residual populations left in Bama LGA.

Food and livelihood information remain extremely limited for these inaccessible areas, though extreme outcomes recorded in Bama IDP Camp, Banki IDP Camp, and in Damboa Town are reported to be largely driven by new arrivals. This was seen in Bama Camp in November where the 22 new SAM cases identified were all from new arrivals. Reports from people coming out of inaccessible areas indicate that Boko Haram food supplies are limited.

Central East: Kala Balge and rural areas of Mafa, Dikwa and Ngala

There has not been a large scale military offensive in these LGAs since June (ACLED) and there are reports of large scale population returns to some of these LGAs. Continued raids and attacks along roads and in rural areas, however, remain a threat as Boko Haram attacks have continued since July. Accessibility to Kala Balge was cut off due to the rains since August and a large IDP population in Rann has likewise been cut off from humanitarian actors.

Extreme food insecurity and malnutrition data from Gamboru, Ngala, and Dikwa, where there is humanitarian access, raise concern regarding the outcomes that may exist in these inaccessible areas. In Gamboru and Ngala, which were largely inaccessible to humanitarian assistance until this summer, an initial MSF screening in September found GAM levels at 28 percent in both areas. A FEWS NET rapid food security survey in Ngala camp, also in September, found food consumption to be severely restricted. Neighboring inaccessible areas, including Rann, where there is a known IDP concentration, are receiving no humanitarian assistance, and it is possible conflict is restricting further access to livelihood activities for these populations. Although information on food security in these inaccessible areas is not available, it is expected outcomes are worse than neighboring accessible areas.

5. Other areas of Borno

Outside of IDP concentrations, food insecurity also remains more severe than usual given the impacts of persistent conflict on markets and livelihoods.

Nutrition, mortality, and food security surveys from the Nutrition and Food Security Surveillance System were conducted in September and October covering accessible clusters and senatorial zones in Northern, Central, and Southern Borno. In Southern Borno, nutrition and mortality data fall within Stressed (IPC Phase 2) thresholds, while food security data show Crisis (IPC Phase 3) thresholds. Central Borno nutrition and mortality data generally fall within Crisis (IPC Phase 3) thresholds, while food security data are more in line with Emergency (IPC Phase 4) thresholds.

Southern Borno (Biu, Bayo, Kwaya Kusar, Shani, Hawul, Askira/Uba, and Chibok) has seen significantly improved food security outcomes following the October 2016 harvests. Large populations from these areas who had previously been displaced were able to return in time to cultivate land for the 2016 season. Staple cereal production has significantly improved compared to the previous season though it remains below five-year average levels. Many households are still Stressed (IPC Phase 2) as they rebuild household assets and face limited purchasing power due to high prices. Worst-affected households remain in Crisis (IPC Phase 3). Populations in Askira/Uba are facing somewhat greater difficulty in maintaining their typical livelihoods due to their proximity to continuing insecurity in and around the Sambisa Forest as the area remains in Crisis (IPC Phase 3).

LGAs in central western Borno (Magumeri, Kaga, Gubio, and Nganzai) have seen some improvements in food security outcomes as significant portions of these LGAs were made accessible in early to mid-2016. Some households in these areas were able to return and participate in the main 2016 harvest season, improving household food availability. Households in these LGAs remain in Crisis (IPC Phase 3) food insecurity as income-generating opportunities remain limited and harvest levels remain significantly below average.

FOOD SECURITY OUTLOOK (OCTOBER 2016 – SEPTEMBER 2017 CONSUMPTION YEAR)**Key Assumptions**

Conflict: Widespread conflict and insecurity are expected to continue. While the nature of the conflict is dynamic, for the purpose of this scenario, it is assumed that the overall scope of the conflict is not expected to change drastically. However, a deterioration in the level and location of insecurity is possible. If this were to occur, food security outcomes could deteriorate beyond the projections below.

Populations in inaccessible areas: Given conflict and continued restrictions on population movement, it is assumed that significant populations will remain trapped in inaccessible areas. These households will continue to face severely restricted food availability and access as insecurity prevents them from participating in agricultural activities, earning income or accessing markets.

Markets: Market activities are expected to improve in some towns and rural areas where improvements in physical accessibility and security have increased trade flows, primarily in southern and central Borno State. However, trade routes

will still be subject to road attacks by Boko Haram. Prices are expected to continue declining through December as households sell off stocks to benefit from very high producer prices. However, prices are expected to remain very high and, as stocks diminish, are expected to increase during 2017 beyond their already elevated levels. This will severely constrain purchasing power among market-dependent households. Off-season crop production this year may offset some of these impacts. Throughout this scenario period, the [depreciation of the Naira in light of reduced oil export earnings will also keep prices well above average](#). Most markets in the northern zone are not functioning and food flow will remain limited.

Food availability and access: Current restrictions on livelihood activities, markets, and humanitarian access in affected areas will remain in place throughout the scenario period. Limited household participation in off-season agricultural activities will continue to limit availability of own production food stocks. The continued restricted availability of labor opportunities and difficult market access in many areas will continue to make difficult market purchase as a means to access food in many areas.

Humanitarian coverage: The Food Security Sector is targeting 5.1 million people in the three states in 2017, of which 3.25 million are located in Borno. However, as of November 2016, only 44 percent of the Nigeria Food Security Sector's funding needs for the year had been met. While funding levels are likely to increase to some extent in 2017 to cover a larger portion of needs, total needs will not likely be met at current, planned, and likely funding levels.

It is expected that several humanitarian partners will continue to operate and scale up assistance operations in Borno though it is unclear whether partners have the capacity to deliver assistance to all those in need, even if full funding is provided. Seven partners are currently reporting planned and ongoing programs continuing into 2017 (OCHA 4W, November). According to WFP 2017 planning figures, WFP is expected to cover about 13 percent of total needs in Borno State, reaching 680,000 beneficiaries through either General Food Distributions or cash/voucher assistance in Bama, Gubio, Gwoza, Jere, Kaga, Konduga, Kukawa, Mafa, Magumeri, Maiduguri, Marte, and Nganzai LGAs. Over 120,000 children under five in the same LGAs are also expected to be reached through Blanket Supplementary Feeding Programs. Targeting figures aim to reach nearly 200,000 people in Maiduguri, 30 percent of the LGA population, and a majority of the population determined to be in Crisis (IPC Phase 3) or higher. In both Jere and Konduga, 100,000 beneficiaries are targeted, approximately 50 percent of their respective LGA populations and nearly all of the populations in Crisis (IPC Phase 3) or higher.

Humanitarian presence/access: It is expected that humanitarian actors will continue to have at least partial access to most LGAs in Borno State, though access to areas that are currently open may fluctuate based on continued security threats and localized attacks. Under the assumption that conflict will continue at a level similar to recent months, it is expected that LGAs in northern and eastern Borno, as well as areas in and around the Sambisa Forest, will remain inaccessible to humanitarian actors. To increase humanitarian access, WFP and UNICEF are in the process of setting up rapid response mechanisms (RRM) to support hard-to-reach areas. The teams will be flown in by helicopter and remain on the ground for six to eight days, while the humanitarian material is trucked in and immediately distributed. This will include food, nutrition, and health support.

Projected Food Security Outcomes

Under the assumption that conflict continues at similar levels, food availability and access will remain restricted throughout northeast Nigeria. Access to livelihoods, including off-season agriculture and livestock rearing, and market functioning will remain limited as the insecurity restricts activity. Food access will be further limited by very high staple food prices related to both the ongoing conflict and the depreciation of the Naira. Similarly, humanitarian access to worst-affected areas of the northeast will also remain limited by ongoing insecurity. The high level of displacement is also expected to continue, with IDPs facing large losses to their livelihoods and limited access to markets for food access.

Much of northern, eastern, and central Borno State will remain in Emergency (IPC Phase 4) through at least the end of the consumption year (September 2017). The limited availability of main harvest stocks and expected low levels of participation in off-season agriculture activities will continue to limit food availability. Purchasing power will remain restricted by limited income earnings. In addition, the IDP concentrations at Monguno, Ngala, Dikwa, Bama, and Banki Town are classified at Crisis (IPC Phase 3), but only because of humanitarian assistance provision as households remain highly dependent on food aid for their food access. In the absence of this assistance, these IDP concentrations could be classified in Famine (IPC Phase 5).

Large areas of Borno State are expected to remain inaccessible to humanitarian actors. Given the severity of food security, nutrition and mortality outcomes in accessible areas, and given the poor physical condition of people coming from the

inaccessible areas, the risk of Famine (IPC Phase 5) will remain elevated through at least next September in large portions of northern and central Borno State that are inaccessible (Annex Figure 18).

In a worst-case scenario, where conflict cuts off areas that are currently accessible and dependent on assistance, the likelihood of Famine in these areas would be high.

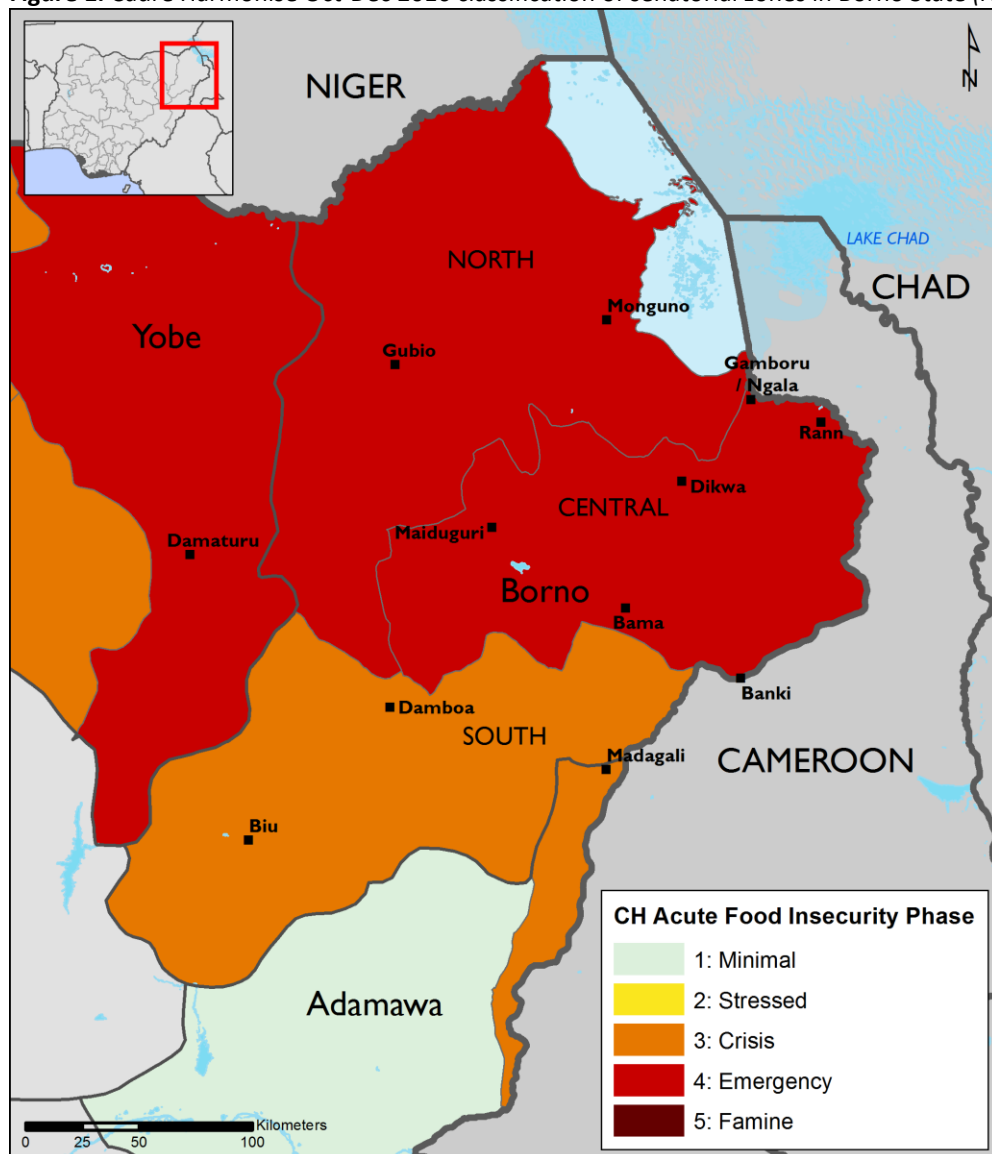
ANNEXES

DATA SOURCES

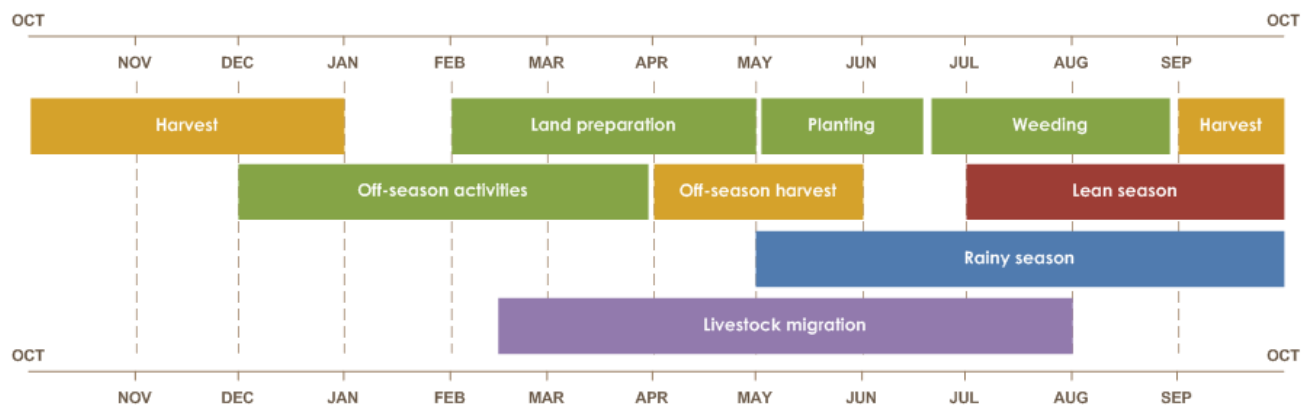
- **FAO and National Bureau of Statistics Food Security and Vulnerability Household Survey (FSVS)** was conducted in October 2016 covering several key food security indicators including Food Consumption Score (FCS), Household Hunger Scale (HHS), Household Dietary Diversity Score (HDDS), and Coping Strategy Index (CSI), as well as information on agricultural production and household food stock levels. The survey was designed to be representative at the Senatorial Zone level through random selection of household clusters, although clusters in LGAs that were inaccessible due to insecurity were replaced in the sample.
- **World Food Programme's (WFP) Mobile Vulnerability Analysis and Mapping (mVAM)** data from June/July and from September/October provides FCS and some market and livelihood information from households and traders with mobile phone access across Borno State. While results have been recorded from almost all LGAs in Borno State, results are mostly coming from urban and accessible areas and many inaccessible LGAs only recorded a handful of responses.
- **Food Security Surveys (WFP Emergency Food Security Assessment [EFSA in MMC and Gujba/ Gulani], ICRC Damboa Rapid Assessment, FEWS NET Ngala Rapid Assessment)** have been conducted in various LGAs, camps and towns since May 2016 using household-level questionnaires representative to resident, IDP, and host community populations (Annex 1 for details of each survey). These surveys collected different food security indicators including FCS, HDDS, HHS, and CSI, as well as supporting information around livelihood change, food and income sources, and food access.
- **Nutrition and Mortality Surveys** have been conducted by Action Against Hunger, WFP, and Médecins Sans Frontières (MSF) in various LGAs and camps. Action Against Hunger uses the SMART methodology for their surveys while WFP and MSF have used both random sampling and in one case an exhaustive camp survey. MSF mortality surveys have used both nine- and two- month recall periods.
- **Nutrition Screenings (IMC, UNICEF, ALIMIA, ACF, MSF)** have been conducted by various partners across LGAs, camps and towns in Borno State using MUAC measurement (acutely malnourished, MUAC<125mm and severely acutely malnourished, MUAC<115mm). Mass screenings have been done at food distributions, during vaccinations campaigns, and through door-to-door household screenings. Health center screenings have also been conducted, but were not included as evidence for this analysis.

Table 7. Data Sources

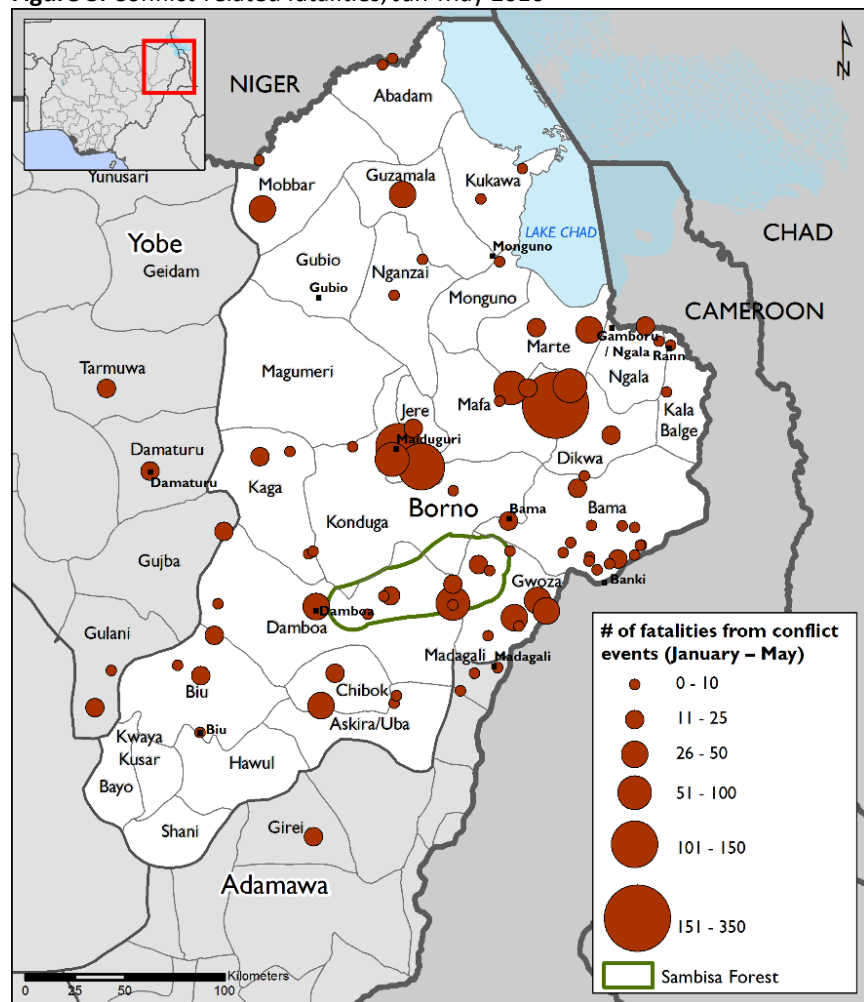
Source	Reliability Score ¹	Month 2016	Location	Population Type Surveyed	Indicators
FAO and NBS Food Security Survey	1	Oct	Senatorial Zones of Borno	Unspecified	FCS, HDDS, HHS, rCSI
WFP mVAM	1	Sep, Oct	Borno LGAs	Households with mobile phone access	FCS
WFP EFSA	3	May	MMC/ Jere	IDP and host comm.	FCS, CSI, MUAC
WFP EFSA	2	July	Gujba, Gulani - Yobe	IDP and host comm.	FCS, CSI, MUAC
ICRC Rapid Food Security and Nutrition Assessment	3	July	Damboa Town	Residents, IDPs, returnees	MUAC, HDDS, CSI meal freq., food/income sources,
FEWS NET Food Security Assessment	2	Sep	Ngala IDP Camp	IDPs in camps	HHS, HDDS, sources of food and income
ACF SMART Surveys	3	Aug, Sep	Monguno Town; Kaga & Konduga LGAs	Host communities	WHZ/MUAC in all locations; HDDS, CDR, and U5DR in Monguno
ACF Nutr. Screening	1	Sep	Gulani LGA - Yobe	Host communities	MUAC
MSF Mortality Surveys	2/3	Aug - Sep	MMC Camps, Banki Town	IDPs in camps	CDR and U5DR
MSF Nutr. Screenings	1	Jun - Oct	Ngala, Banki Town, MMC, and Damboa Camps	IDPs in camps	MUAC
ALIMIA Nutr. Screenings	1	Jun	Monguno Town	Not specified	MUAC
UNICEF Nutr. Screenings	1	Apr - Jul	Konduga, Dikwa, & Bama Towns	IDPs in camps and host communities	MUAC
UNICEF IPV Nutr. Screenings	1	Sep - Oct	Mafa, MMC, Jere and Konduga LGAs	All residents	MUAC
IMC Nutr. Screenings	1	Jun	MMC and Jere LGAs	IDPs in camps and host communities	MUAC

Figure 1. Cadre Harmonisé Oct-Dec 2016 classification of senatorial zones in Borno State (*released October 28, 2016*)

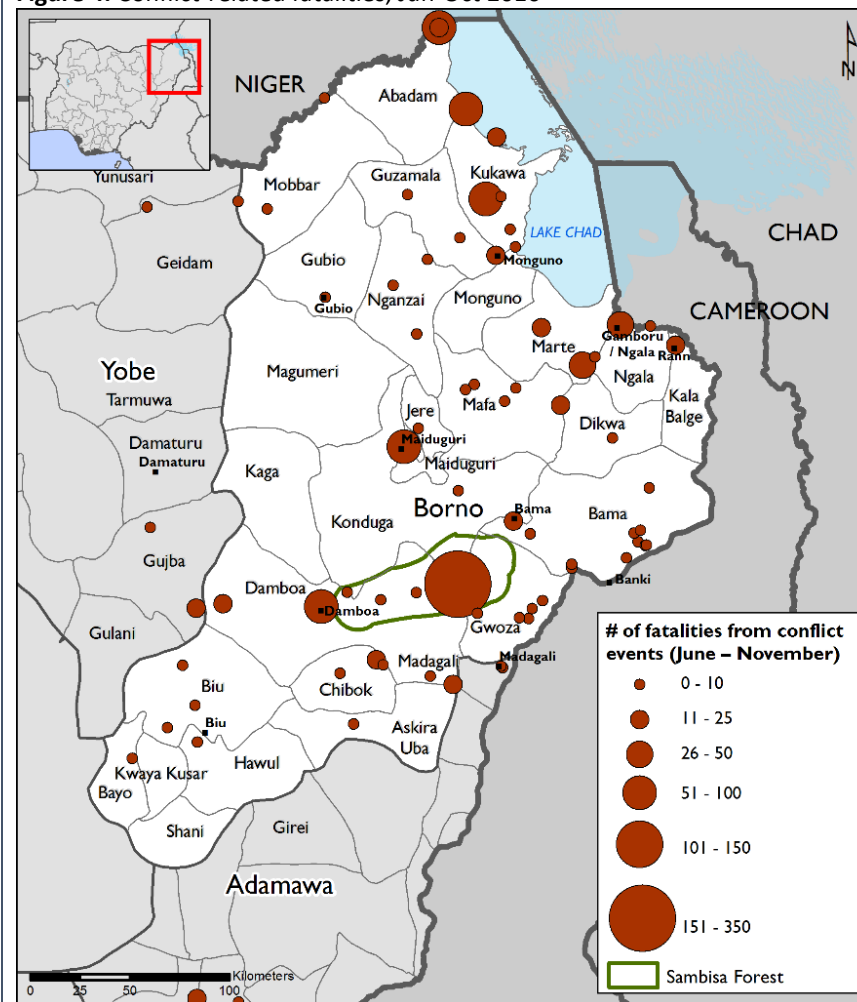
Source: Nigeria Cadre Harmonisé Technical Unit

Figure 2. Seasonal calendar for a typical year in northern Nigeria

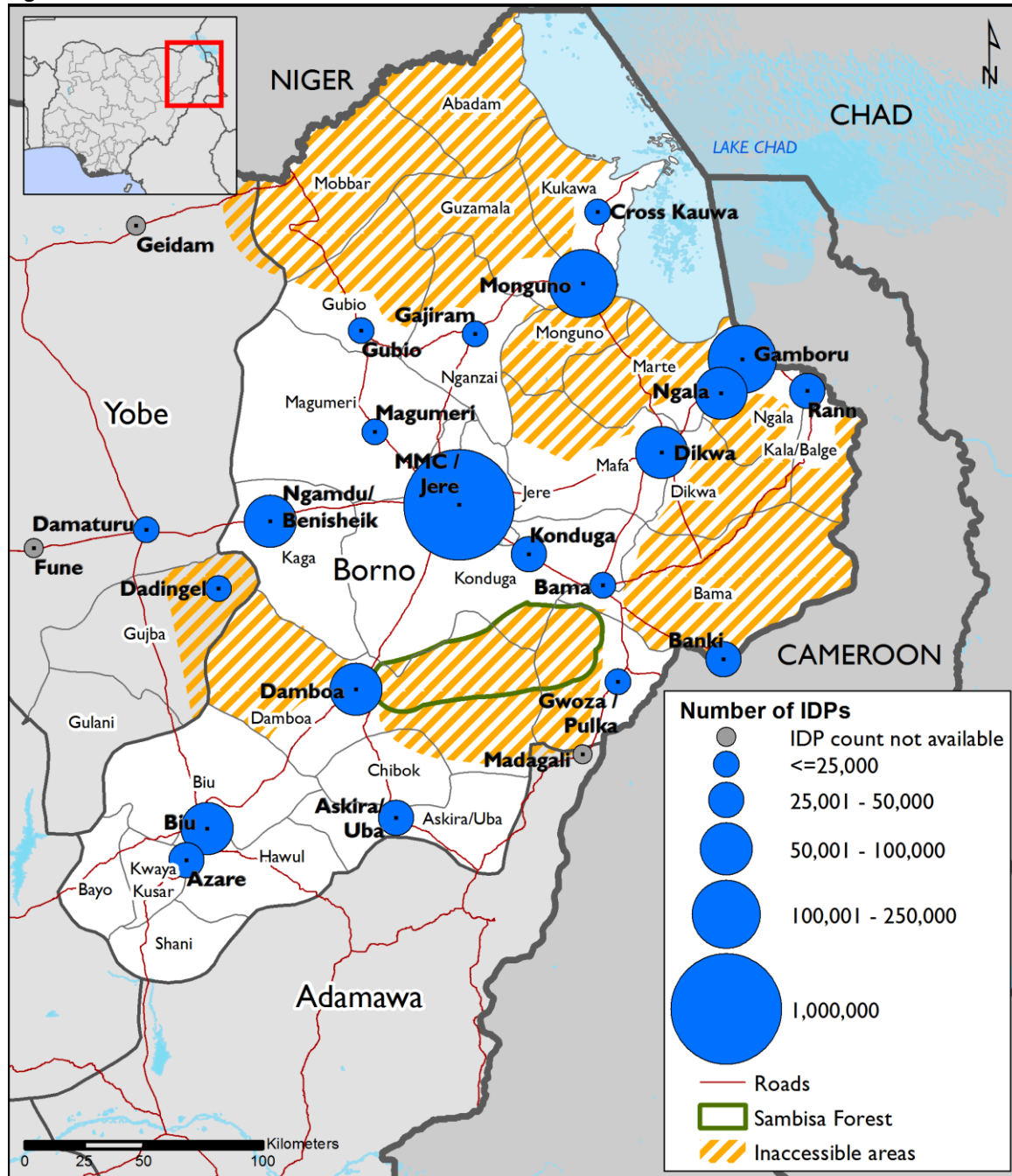
Source: FEWS NET

Figure 3. Conflict-related fatalities, Jan-May 2016

Source: ACLED

Figure 4. Conflict-related fatalities, Jun-Oct 2016

Source: ACLED

Figure 5. Areas inaccessible to humanitarian actors as of November 2016

Source: FEWS NET, OCHA, IOM DTM, NEMA, WFP

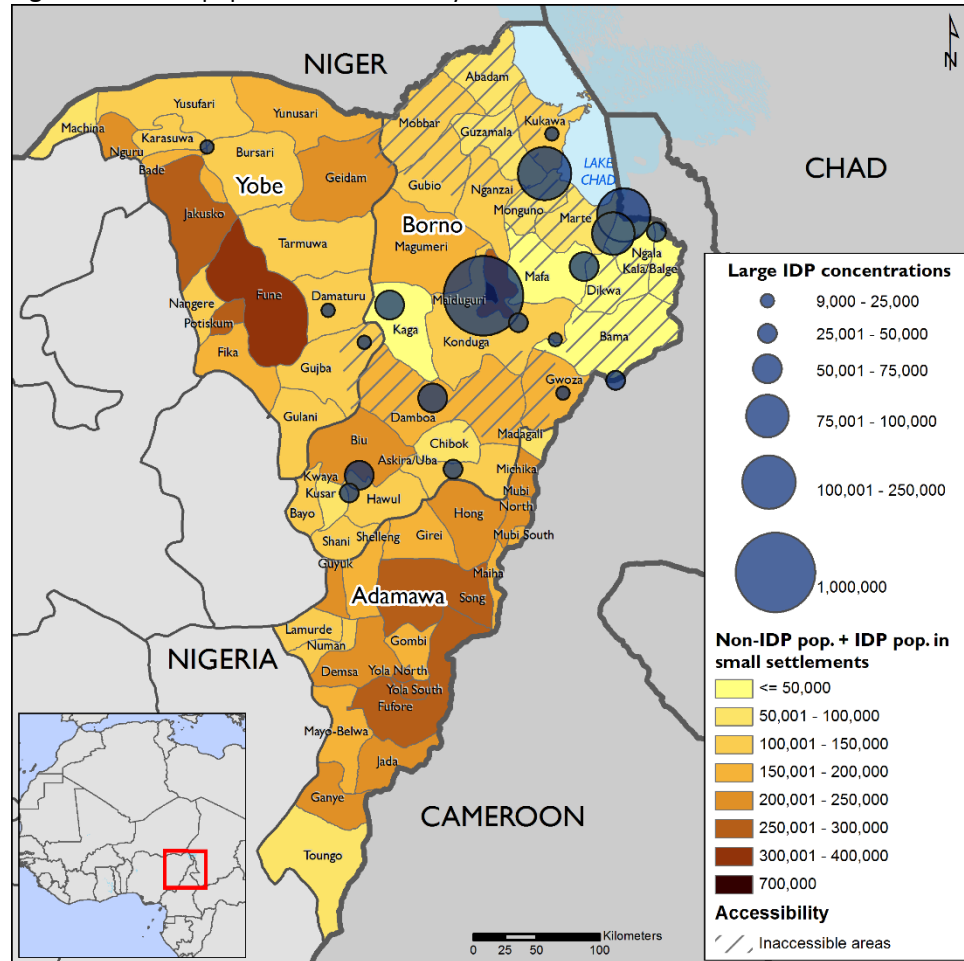
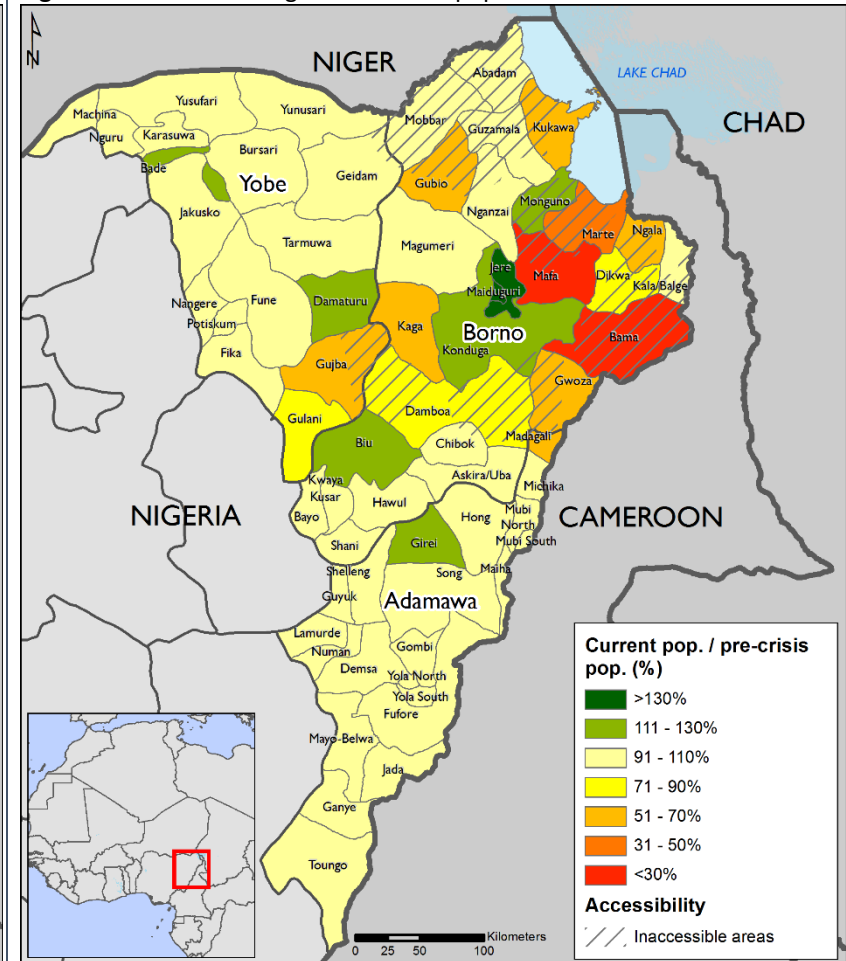
Figure 6. Current population estimates by LGA and IDP concentration**Figure 7.** Estimated changes in total LGA population between 2014 and 2016

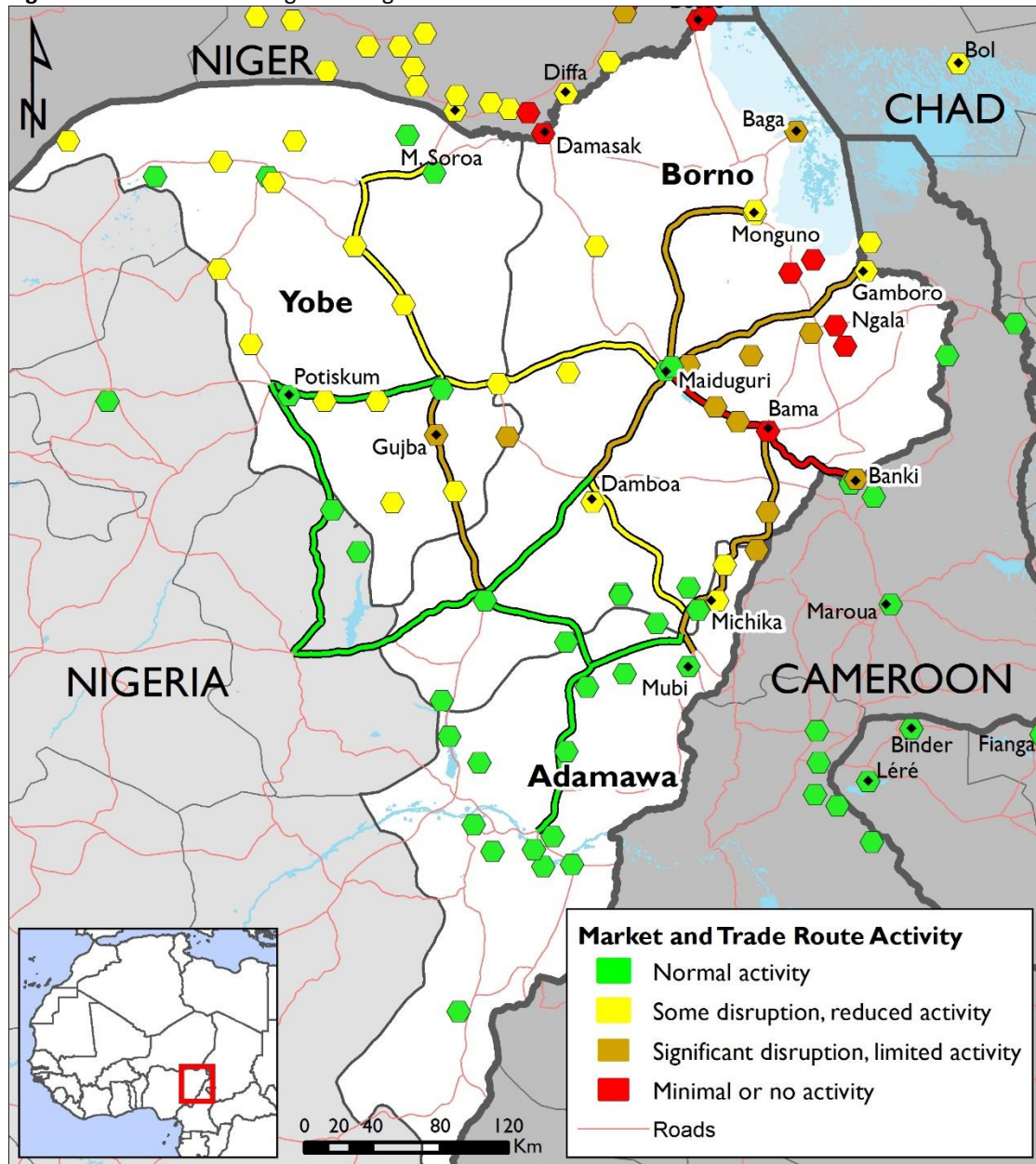
Figure 8. Market functioning in NE Nigeria as of October 2016

Figure 9. Change in millet prices in the last 12 months

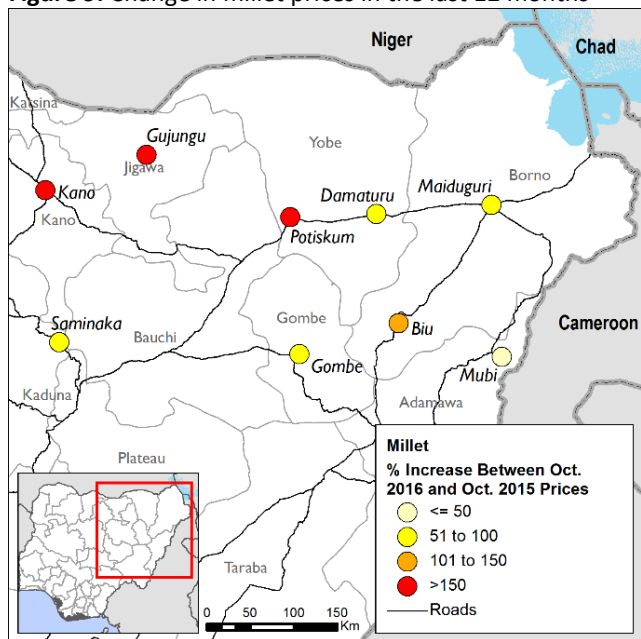


Figure 10. Change in sorghum prices in the last 12 months

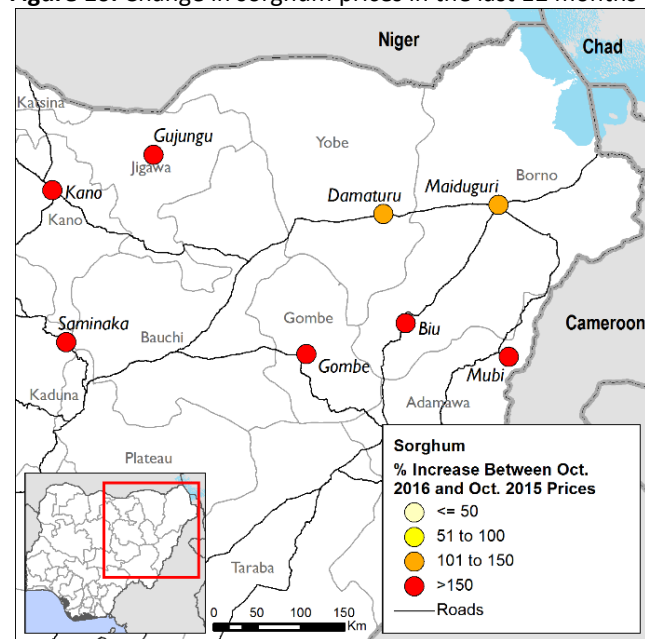
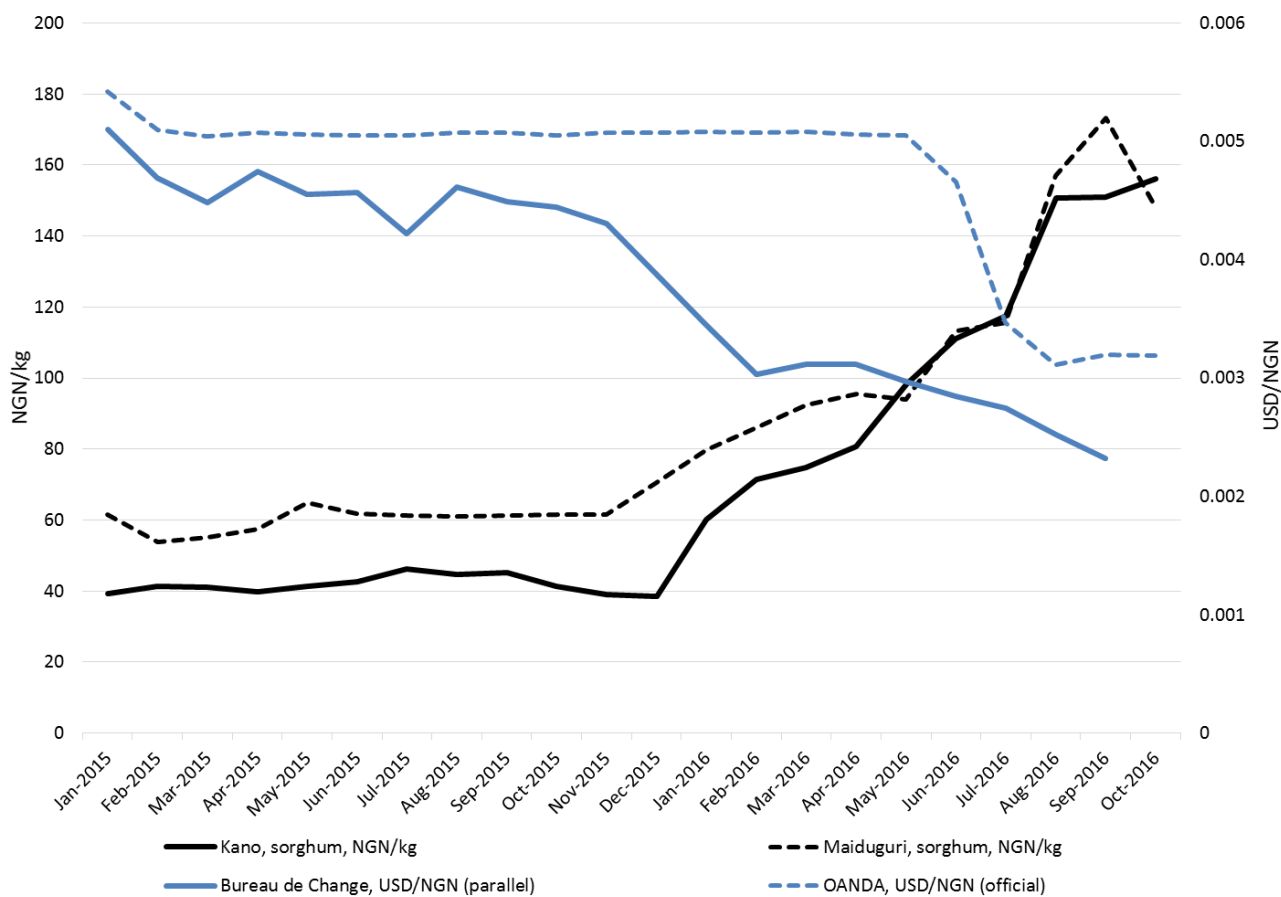
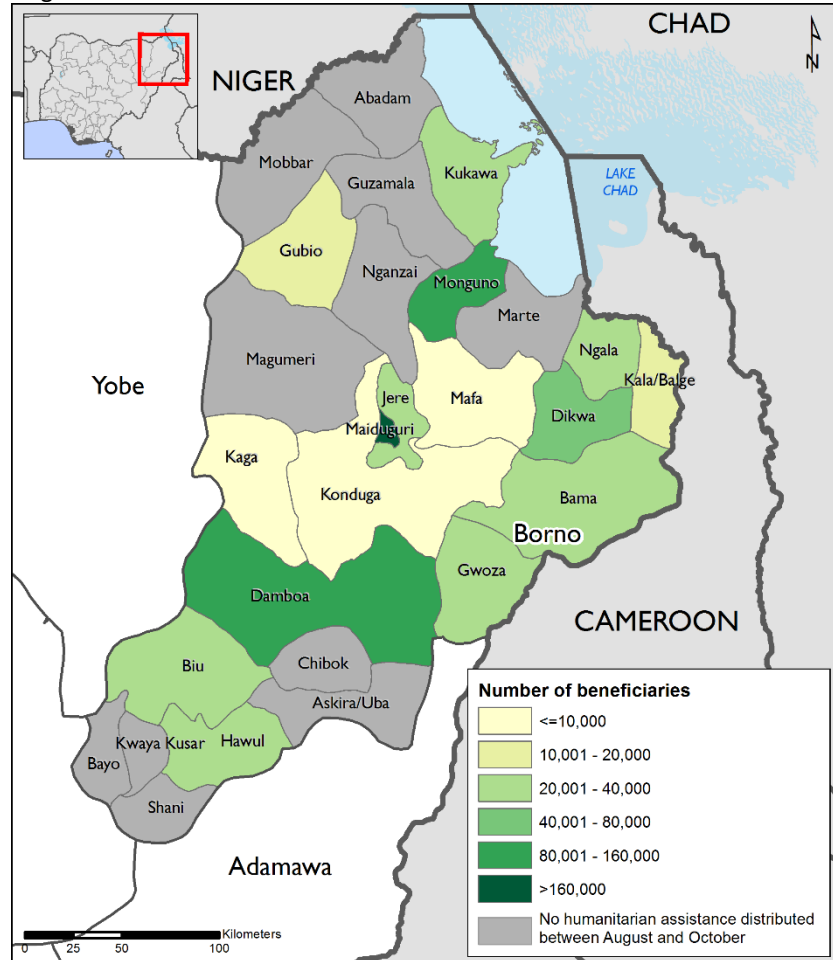


Figure 11. Sorghum price and exchange rate trends in northern Nigeria (Jan 2015-Oct 2016)



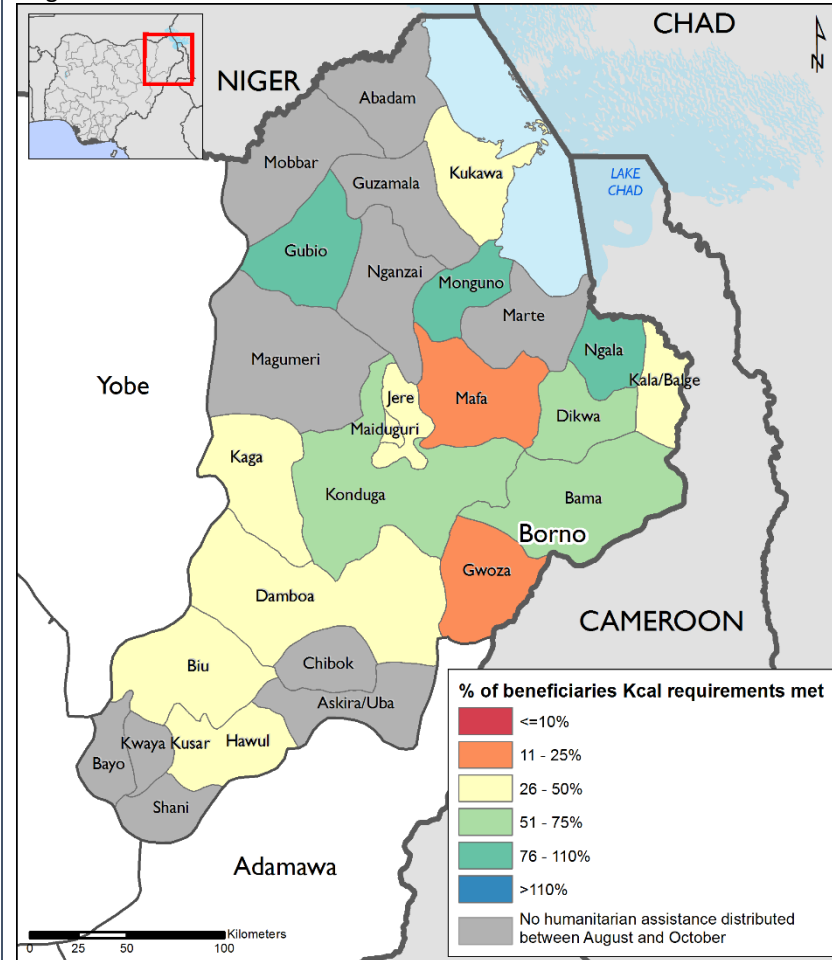
Source: FEWS NET

Figure 12. Average number of beneficiaries receiving food assistance, Aug-Oct 2016

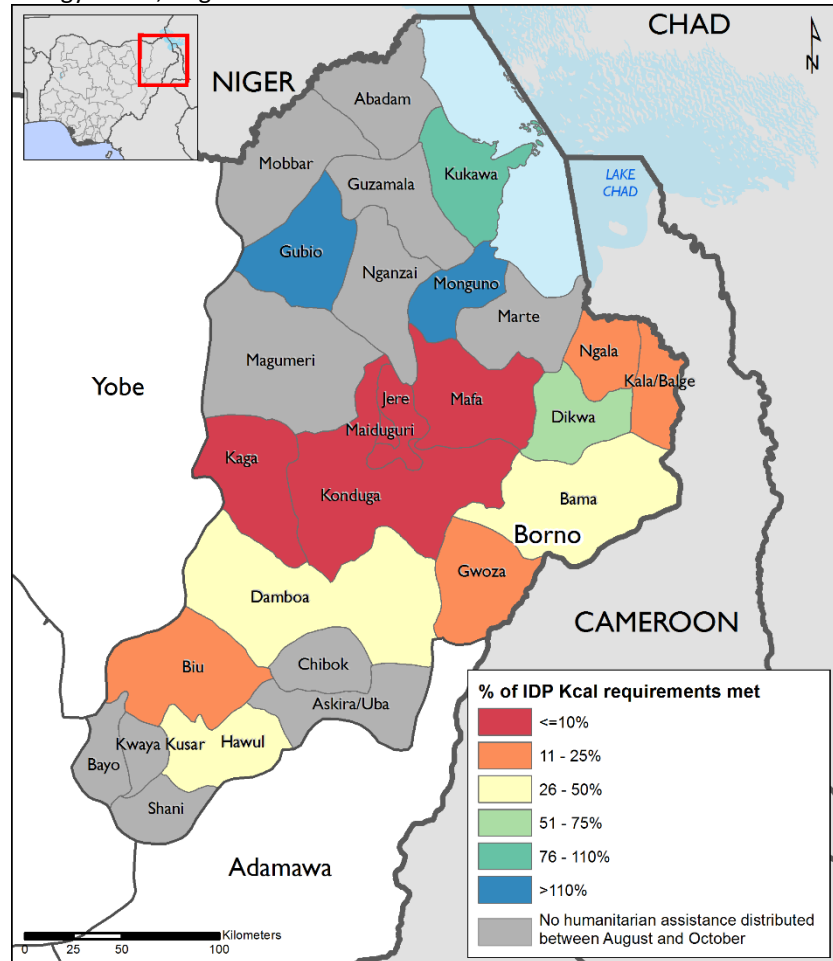


Analysis: FEWS NET Data: Various

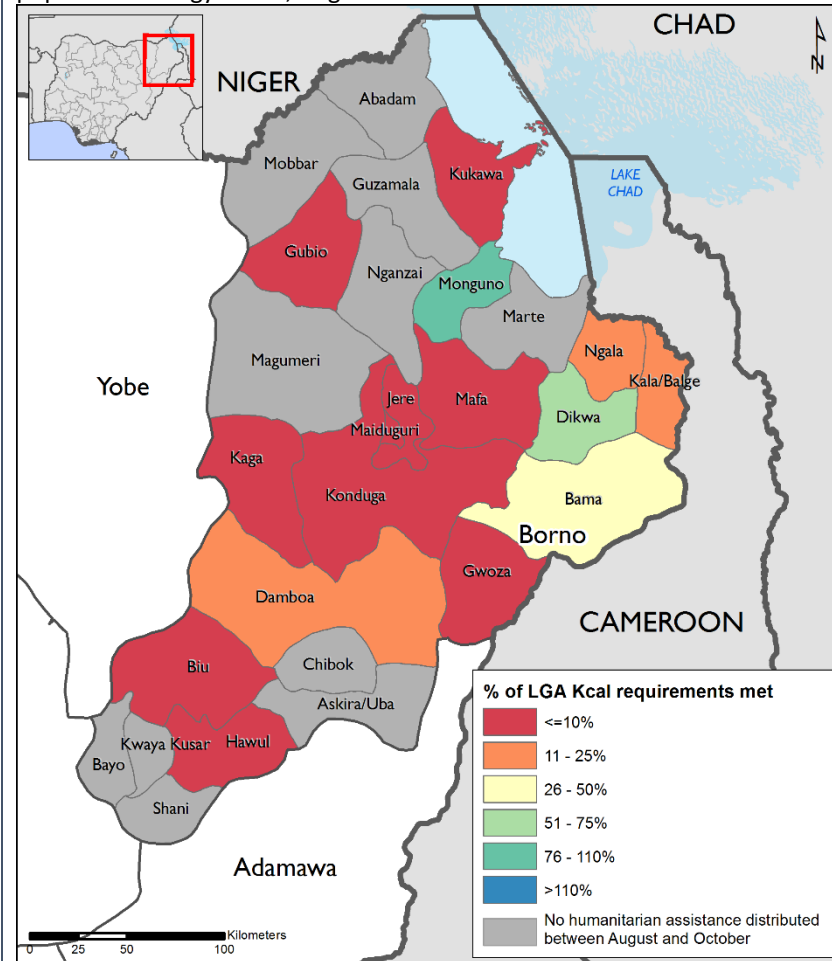
Figure 13. Average % of beneficiary caloric needs met by food assistance, Aug-Oct 2016



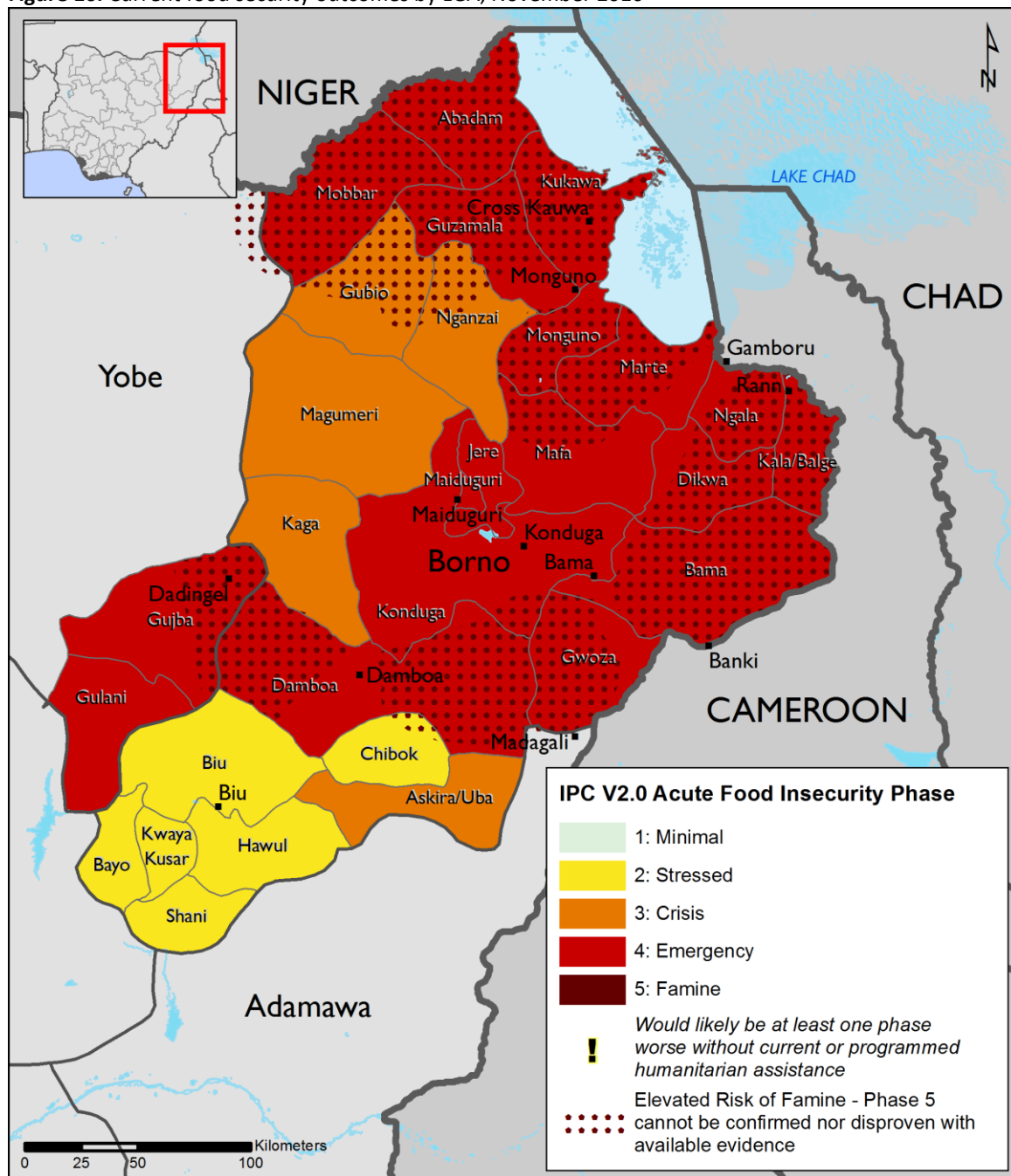
Analysis: FEWS NET Data: Various

Figure 14. Average caloric value of food assistance provided as a % of IDP energy needs, Aug-Oct 2016

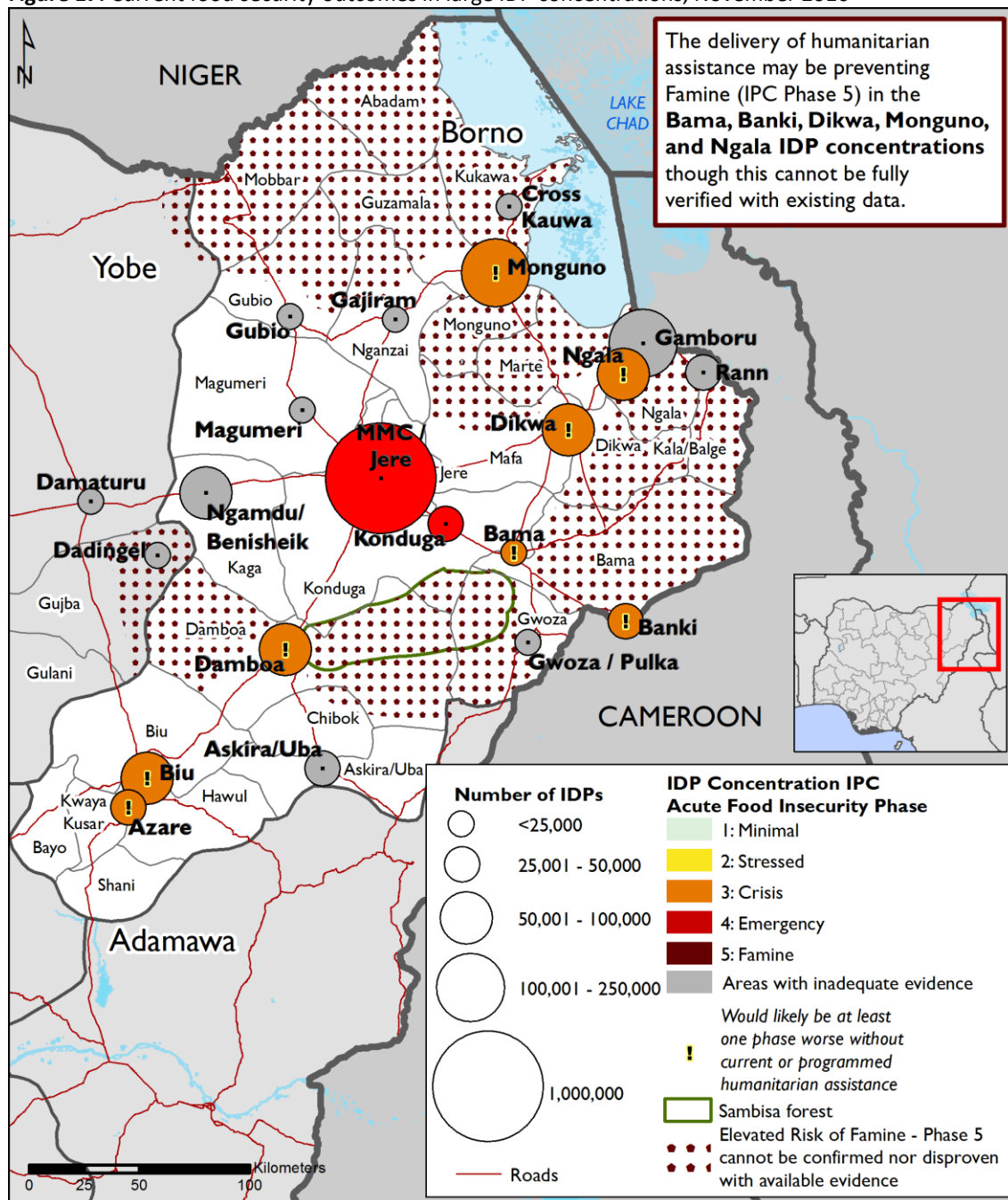
Analysis: FEWS NET Data: Various

Figure 15. Average caloric value of food assistance provided as a % of LGA population energy needs, Aug-Oct 2016

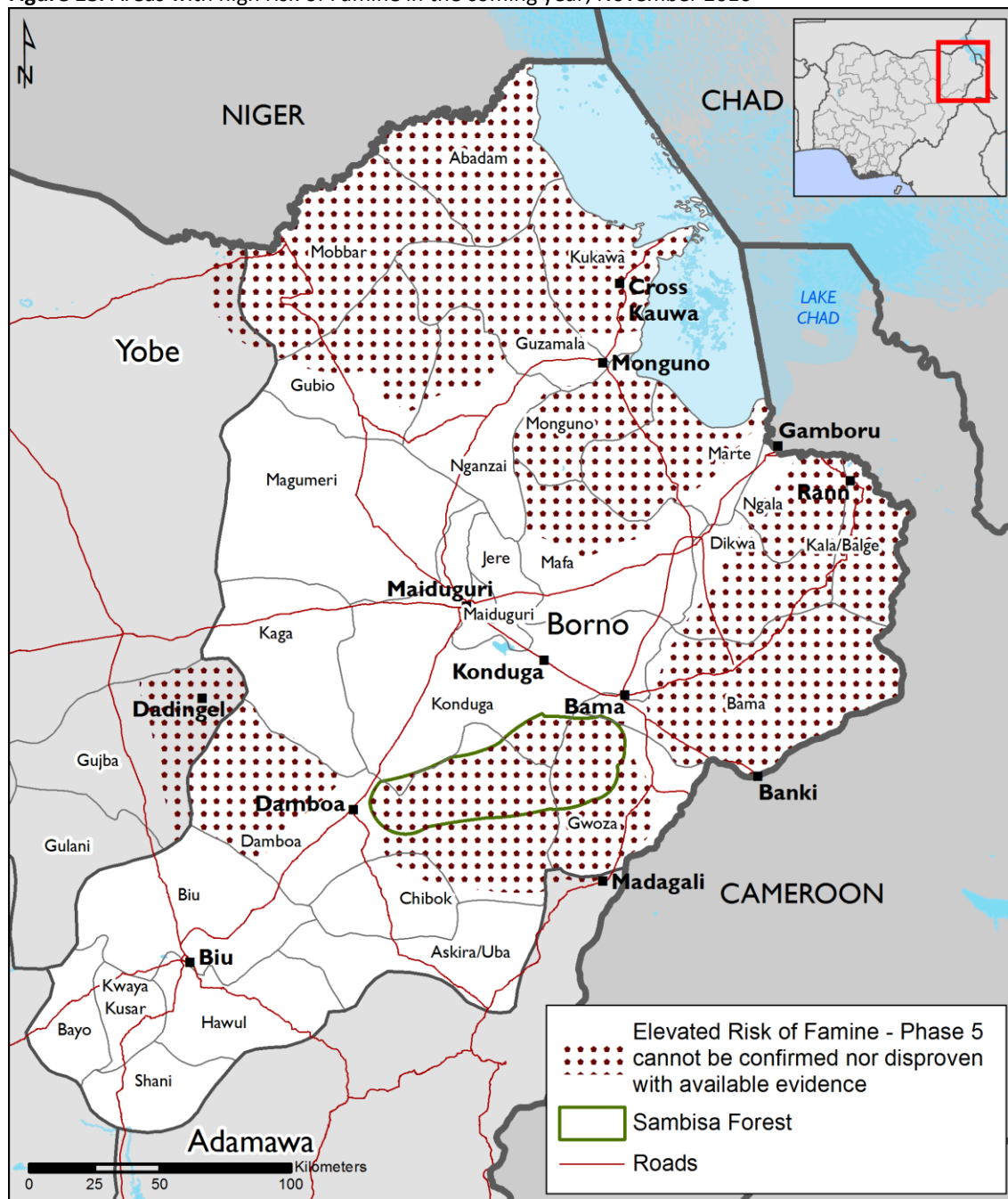
Analysis: FEWS NET Data: Various

Figure 16. Current food security outcomes by LGA, November 2016

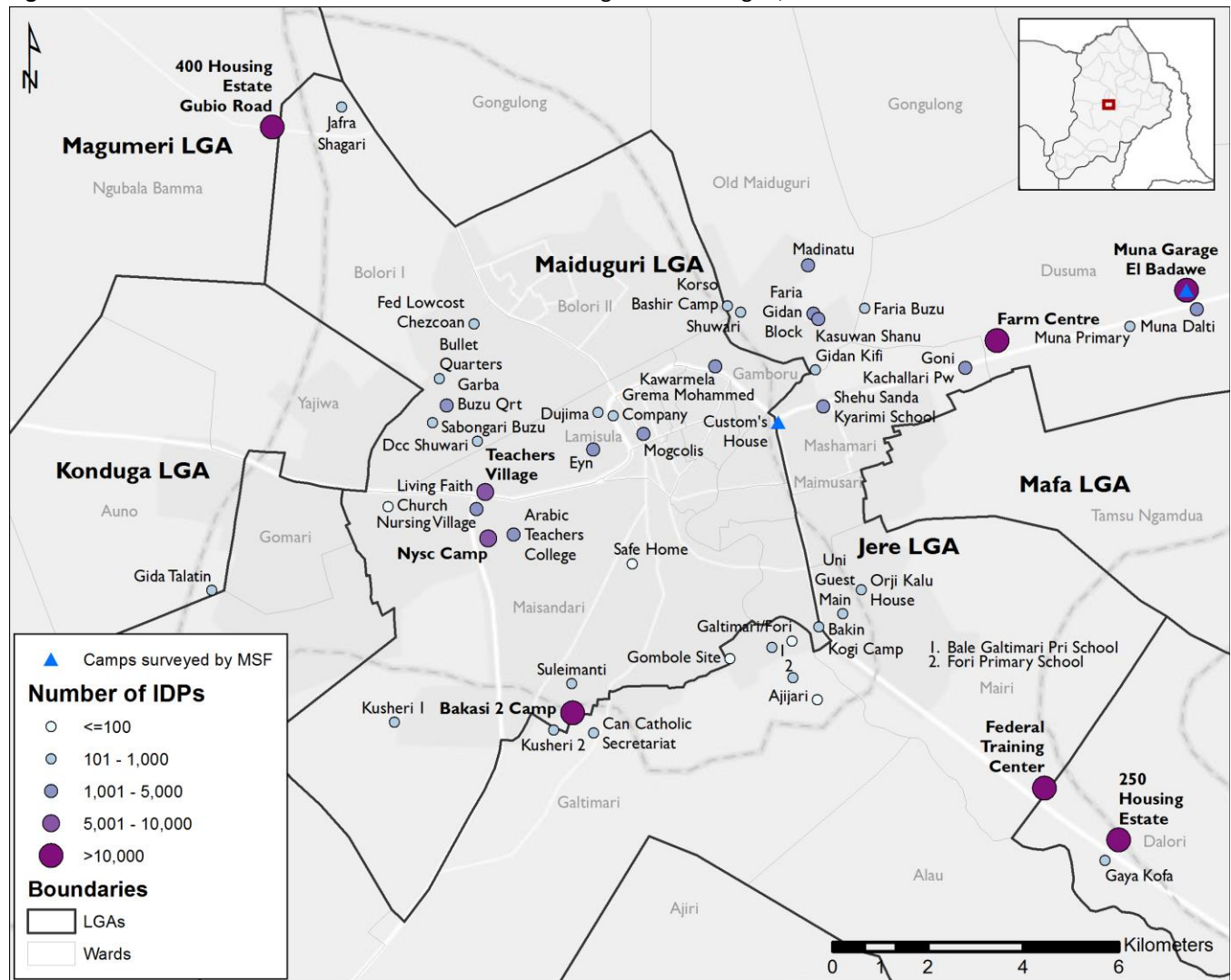
Source: FEWS NET

Figure 17. Current food security outcomes in large IDP concentrations, November 2016

Source: FEWS NET

Figure 18. Areas with high risk of Famine in the coming year, November 2016

Source: FEWS NET

Figure 19. Location and size of known IDP concentrations in greater Maiduguri, November 2016

Graphic: FEWS NET Data: IOM DTM

Figure 20. Description of FEWS NET population analysis

Given the range of available population estimates and the lack of information on how these estimates were derived, FEWS NET conducted a population analysis using pre-conflict census data, IOM data on IDP location and village of origin, IDP concentration population estimates from OCHA, ICRC, and NEMA, and UNHCR estimates of the refugee populations in neighboring Niger, Cameroon, and Chad. Using the pre-conflict census data as a starting point, IDP families were added to the population estimates for their current LGA of residence and subtracted from the population estimates for their LGA of origin. An additional assumption was made that refugee populations in neighboring Niger, Cameroon, and Chad were likely from the LGAs which bordered these countries. This approach provided estimates for LGAs that were fully accessible or fully inaccessible. For partially accessible LGAs, an additional step was taken to distribute the estimated population between the accessible and inaccessible areas of the LGA. In short, rather than assume that populations were evenly distributed across these LGAs, FEWS NET assumed that most of the population was displaced towards larger towns. In addition to the inherent uncertainty of estimating populations in inaccessible areas where no data exists and few partners have been able to visit, a significant limitation of this analysis is that available displacement data is unlikely to have captured all population movement within and out of Borno State.

Overall, the FEWS NET population analysis showed a significant population decline in many conflict-affected LGAs as well as population increases in LGA headquarters and MMC/Jere (Annex Figures 6 and 7). This finding is in line with reports from partners, traders, and NEMA. This exercise also suggested that between 400,000–800,000 people may remain in inaccessible areas of northern and central Borno. This range reflects the uncertainty of estimating populations in inaccessible areas. The lower bound would more closely reflect the assumption that many of these areas are largely deserted and the possibility that data recording population displacement from inaccessible LGAs does not fully count all of the people who have left. The higher bound reflects the possibility that significant populations remain trapped in these areas and cannot be accounted for given the inaccessibility.

Figure 21. Key Emergency Review Committee (ERC) conclusions and qualifications

FEWS NET Statement	ERC conclusion	Key ERC Qualifications
<i>Available evidence suggests that a Famine occurred in Bama Local Government Area (LGA) during 2016, though this cannot be fully verified with existing data.... It is also possible that Famine-level mortality occurred in other parts of Borno State during 2016, but available data is insufficient to make this determination."</i>	<ul style="list-style-type: none"> Following all IPC Guidelines for Famine Declaration, the ERC cannot confirm that a Famine happened in either Banki, Bama Towns nor in other inaccessible areas due to insufficient reliable evidence available. Following all IPC Guidelines for Famine Declaration, the ERC agrees that there is enough converging somewhat reliable evidence to classify an Elevated Risk that a Famine occurred in Bama and Banki towns, if caveats identified by the ERC are respected. 	<ul style="list-style-type: none"> ERC assumes that the statement made by FEWS NET that the vast majority of Bama LGA's remaining population was concentrated in Bama Town and Banki Town in June 2016 is backed up by reliable evidence
<i>"A Famine may be ongoing in inaccessible areas of Borno State."</i>	<ul style="list-style-type: none"> Following all IPC Guidelines for Famine Declaration, the ERC cannot confirm that a Famine happened in either Banki, Bama Towns nor in other inaccessible areas due to insufficient reliable evidence available. The ERC agrees that following IPC Famine guidelines, there is enough converging somewhat reliable evidence to state that there is an Elevated Likelihood that a Famine is on-going in inaccessible areas of Borno State if there still exist non-accessible areas where conditions are similar or worse compared to what Banki and Bama experienced in April-August of 2016, if caveats identified by the ERC are respected. 	<ul style="list-style-type: none"> Classification relates to areas inaccessible areas of Borno. The statements about current risk/likelihood of famine are based on the speculation/ assumption that there still are blocked enclaves with little to no access to food and health care where conditions are similar to, or worse than those that Bama and Banki experienced from April to August of 2016. The ERC assumes that conditions in inaccessible areas of Borno have not changed from early 2016 to now.
<i>The risk of Famine in inaccessible areas of Borno State will remain high over the coming year.</i>	<ul style="list-style-type: none"> The ERC agrees that following IPC Famine Guidelines, there is enough converging somewhat reliable evidence to state that there is an Elevated Risk that a Famine will continue in inaccessible areas of Borno State. 	<ul style="list-style-type: none"> Classification relates to inaccessible areas of Borno. The statements about current risk/likelihood of famine are based on the assumption that there still are blocked enclaves with little to no access to food and health care where conditions are similar to, or worse than those that Bama and Banki experienced from April to August of 2016. The ERC assumes that conditions in inaccessible areas of Borno have not changed from early 2016 are likely to remain in the next year. FEWSNET should clearly describe the assumptions for the projected analysis.
<i>The delivery of humanitarian assistance has mitigated food insecurity and may be preventing Famine (IPC Phase 5) in the Bama, Banki, Dikwa, Monguno, and Ngala IDP concentrations though this cannot be fully verified with existing data.</i>	<ul style="list-style-type: none"> The ERC agrees that there is enough converging reliable evidence to state that a Famine has been likely avoided by humanitarian assistance in Monguno Camp. The ERC agrees that there is enough converging evidence to state that in absence of humanitarian assistance, Famine outcomes would be likely in Custom House. However, given that the camp population has been estimated to be only 8,000 people, the statement cannot be made following IPC Famine Guidelines. The ERC finds that when using the IPC guidelines for Famine Declaration there is not enough reliable direct evidence to classify Banki Camp, Bama Camp, Dikwa Town, Ngala Town as Phase 4! 	<i>No caveats provided</i>