

NORTHEAST AND NORTHWEST NIGERIA

IPC ACUTE MALNUTRITION ANALYSIS MAY 2023 – APRIL 2024

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KEY FIGURES MAY 2023 - APRIL 2024		
4.41M the number of 0-59 months children acutely malnourished IN NEED OF TREATMENT	Severe Acute Malnutrition (SAM)	1.04M
	Moderate Acute Malnutrition (MAM)	3.37M
	585,000 Pregnant or lactating women acutely malnourished IN NEED OF TREATMENT	

Overview

This analysis covered a total of 133 Local Government Areas (LGAs) in Nigeria – 62 in northeast and 71 in northwest Nigeria. Between May and September 2023, more than half of the LGAs are classified in either IPC AMN Phase 3 (Serious) or IPC AMN Phase 4 (Critical). Of these, 14 LGAs in the northeast region are in Phase 3, 27 are in IPC AMN Phase 2 (Alert) and the remaining 21 are in IPC AMN Phase 1 (Acceptable). In the northwest, 12 LGAs were classified in Phase 4, 46 in Phase 3 and 13 in Phase 2. The high-risk contributing factors to acute malnutrition in northeast and northwest Nigeria include very poor food consumption (quantity and quality) and poor health seeking behaviors. Additionally, poor health services, feeding practices, food insecurity and access to water, sanitation, and hygiene (WASH) services and facilities play a significant role. Other factors that lead to acute malnutrition include, banditry and population displacement as well as insecurity limiting access to vulnerable populations.

It is estimated that nearly 4.4 million children aged 0-59 months are suffering and will likely continue to suffer from acute malnutrition through to April 2024. This includes 1 million cases of children suffering from Severe Acute Malnutrition (SAM). Nearly 600,000 pregnant and lactating women are suffering and will likely continue to suffer from acute malnutrition and are therefore in need of treatment.

Analysis for the projection period of October to December 2023 predicted that in both the northeast and northwest regions, acute malnutrition levels are expected to remain the same. In the second projection period of January to April 2024, the situation is projected to worsen slightly in the northeast region. Conversely, a slight improvement is expected in the northwest region.

Key Drivers



Food consumption

Poor food consumption (both quality and quantity)



Hygiene and Sanitation

Poor WASH services and access to facilities



Diseases

Poor health seeking behavior.



Feeding Practices

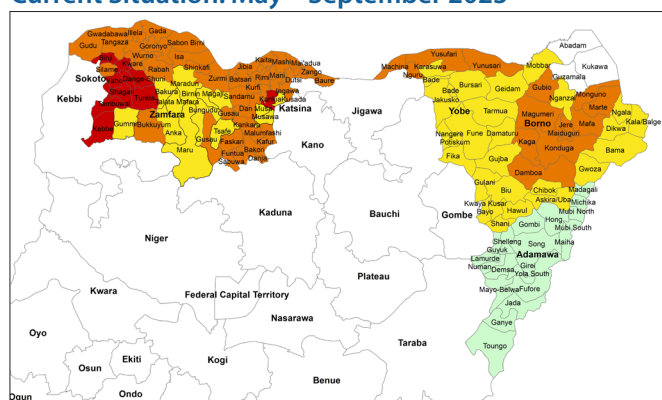
Poor infant and young child feeding practices particularly low rates of exclusive breastfeeding.



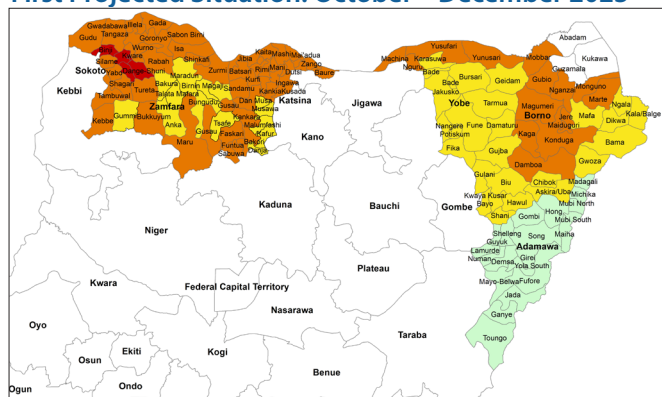
Health Services

Poor health services

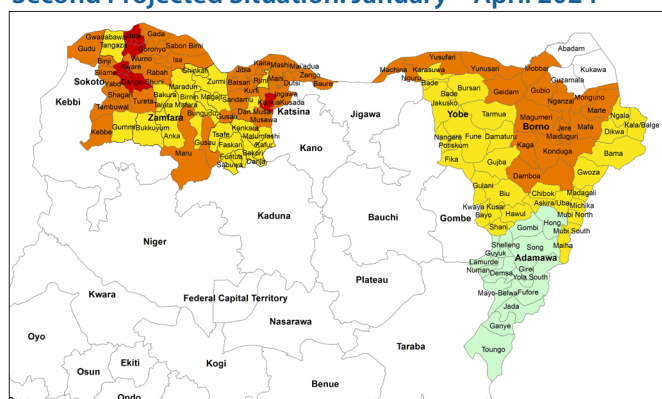
Current Situation: May – September 2023



First Projected Situation: October – December 2023



Second Projected Situation: January – April 2024

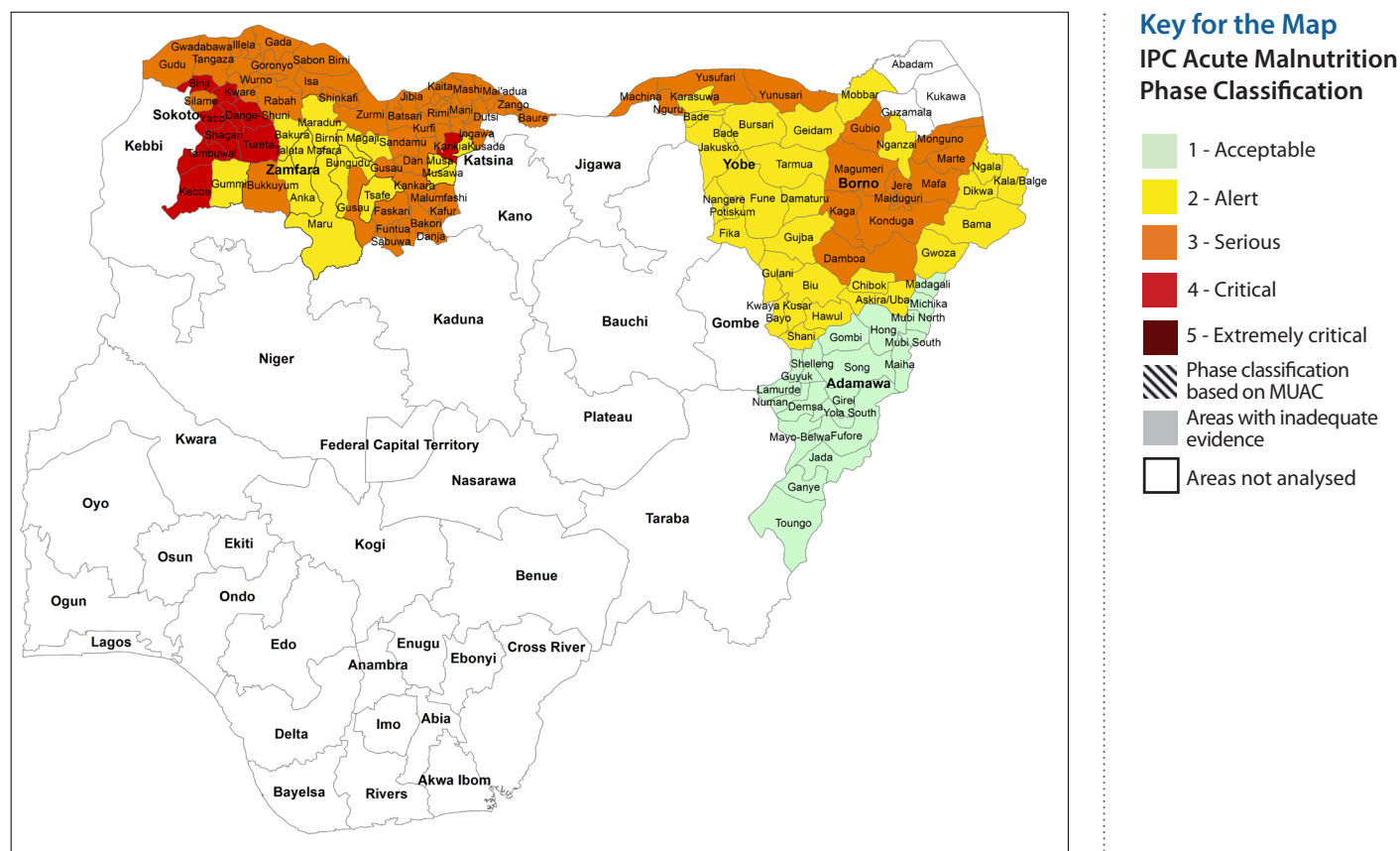


Key for the Map

IPC Acute Malnutrition Phase Classification

- 1 - Acceptable
- 2 - Alert
- 3 - Serious
- 4 - Critical
- 5 - Extremely critical
- Areas not analysed

CURRENT SITUATION MAP AND OVERVIEW: MAY – SEPTEMBER 2023



Current Situation Overview (May to September 2023)

Northeast Nigeria

The IPC AMN analysis of Northeast Nigeria included 62 of the 65 LGAs. The three LGAs not included in the analysis are in Borno State and were not accessible. Between May and September 2023, 14 LGAs were classified in IPC AMN Phase 3 (Serious), 27 in IPC AMN Phase 2 (Alert) and 21 in IPC AMN Phase 1 (Acceptable).

- LGAs in Phase 3: 10 in Borno (Damboa, Gubio, Jere, Kaga, Konduga, Mafa, Magumeri, Marte, Monguno and Maiduguri) and 4 in Yobe (Machina, Nguru, Yunusari and Yusufari).
- LGAs in Phase 2: 14 in Borno (Askira Uba, Bama, Bayo, Biu, Chibok, Dikwa, Gwoza, Hawul, Kala Balge, Kwaya Kusar, Mobbar, Ngala, Nganzai and Shani) and 13 in Yobe State (Bade, Bursari, Damaturu, Fika, Fune, Geidam, Gujba, Gulani, Jakusko, Karasuwa, Nangere, Potiskum and Tarmuwa).
- LGAs in Phase 1: 21 in Adamawa (Damsa, Fufore, Ganye, Girei, Gombi, Guyuk, Hong, Jada, Lamurde, Madagali, Maiha, Mayo-Belwa, Michika, Mubi North, Mubi South, Numan, Shelleng, Song, Toundo, Yola North and Yola South).

Contributing Factors

The major contributing factors driving the current situation in the northeast region are poor food consumption patterns in terms of diversity, high prevalence of child morbidities (fever/malaria, diarrhea) and poor hygiene practices among the analysed population. The proportion of children aged 6-23 months who received foods from five or more food groups (minimum dietary diversity) across the 10 domains in Borno, Adamawa and Yobe ranged between 17.5 and 38.9 percent, while those children who received the recommended minimum acceptable diet ranged between 7.1 and 24.2 percent which shows poor food consumption patterns among the 6-23-month population category. On the other hand, acute food insecurity is a medium risk factor contributing to acute malnutrition, as most of the LGAs were classified in Phase 3 of the



Cadre Harmonisé. Moreover, poor coverage of health and nutrition services and poor caring practices – especially exclusive breastfeeding – were identified as medium risk factors contributing to the prevalence of acute malnutrition in the three states. Additionally, the impact of 2022 flooding, spike in food prices, fuel subsidy removal and high levels of inflation have adversely affected the nutrition situation. The insecurity in the region also continues to impact the nutrition situation, with continued displacement and limited access to food and basic health-care services.

Trend Analysis

The current IPC AMN analysis for the period of May to September 2023 shows improvement in the level of acute malnutrition when compared with the same period of analysis last year (May to September 2022). The number of LGAs in IPC AMN Phase 4 (Critical) decreased from 13 to 0 while the number of LGAs in IPC AMN Phase 3 (Serious) decreased from 17 to 14 when compared with last year's analysis. The improvement is attributed to the fact that there were no cholera outbreaks this year. The impact of the 2021 (July - December) camp closures which created many nutrition and food security problems in 2022 is minimal this year. There was also an early rollout of lean season surge actions and a scale-up of nutrition assistance compared to 2022.

Northwest Nigeria

All of the 71 LGAs in Sokoto, Katsina and Zamfara States were analysed. For the current period, 12 LGAs were classified in IPC AMN Phase 4 (Critical), 46 in IPC AMN Phase 3 (Serious) and 13 in IPC AMN Phase 2 (Alert):

- LGAs in Phase 4: 11 in Sokoto (Bodinga, Dange-Shuni, Sokoto-North, Sokoto-South, Wamakko, Binji, Shagari, Kebbe, Tambuwal, Tureta and Yabo) and 1 in Katsina (Kankia).
- LGAs in Phase 3: 12 in Sokoto (Gudu, Silame and Tangaza, Goronyo, Isa, Rabah, Sabon-Birni, Gada, Gwadabawa, Kware, Illela and Wurno); 30 in Katsina (Batagarawa, Batsari, Jibia, Kaita, Katsina, Kurfi, Rimi, Dutsinma, Danmusa, Safana, Daura, Sandamu, Baure, Mai'aduwa, Zango, Bindawa, Charanchi, Dutsi, Mashi, Mani, Dandume, Faskari, Funtua, Sabuwa, Bakori, Danja, Kafur, Kankara, Malumfashi and Ingawa); and 4 in Zamfara (Gusau, Bukkuyum, Shinkafi and Zurmi).
- LGAs in Phase 2: 10 in Zamfara (Bungudu, Maru, Tsafe, Anka, Gumi, Maradun, Talata-Mafara, Bakura, Birnin-Magaji and Kauran-Namoda) and 3 in Katsina (Kusada, Matazu and Musawa).

Contributing Factors

The very high-risk factors driving acute malnutrition within the northwest region are linked to poor food consumption – both in terms of diversity and frequency as well as poor health-seeking behavior. Within the 71 LGAs across the northwest, the proportion of children aged 6-23 months who received foods from five or more food groups (minimum dietary diversity) in Sokoto, Katsina and Zamfara ranged between 3 and 44.2 percent, while those children who received the recommended minimum acceptable diet (MAD) ranged between 2.4 and 33 percent. On the other hand, the prevalence of diseases such as diarrhea (1.8 and 21.5 percent), malaria (3.6 and 19.3 percent) and Acute Respiratory Infections (ARI) (as high as 18.8 percent) are notably contributing to the elevated rates of acute malnutrition in this region. Other factors of concern are poor caring and feeding practices – particularly the early initiation of breastfeeding, exclusive breastfeeding, introduction of solid, semi-solid or soft foods and WASH facilities and services. The region also experiences regular disruptions such as insecurity, flooding, cholera, measles outbreaks, banditry and kidnapping. Unforeseen shocks such as fires, cattle rustling, fluctuations in the Naira (local currency), the adoption of cashless policies, fluctuating exchange rates and the removal of fuel subsidies have all fueled an unprecedented surge in inflation.

The Cadre Harmonisé analysis of the region placed 47 LGAs in Phase 3 and 24 LGAs in Phase 2. Sokoto has 8 LGAs in Phase 3 and 15 LGAs in Phase 2; Katsina has 25 LGAs in Phase 3 and 9 LGAs in Phase 2; and all of the LGAs in Zamfara (14) are in phase 3. The comprehensive assessment of these factors underscores the urgent need for multifaceted interventions to address the challenges fueling acute malnutrition within the northwest region.

Trend Analysis

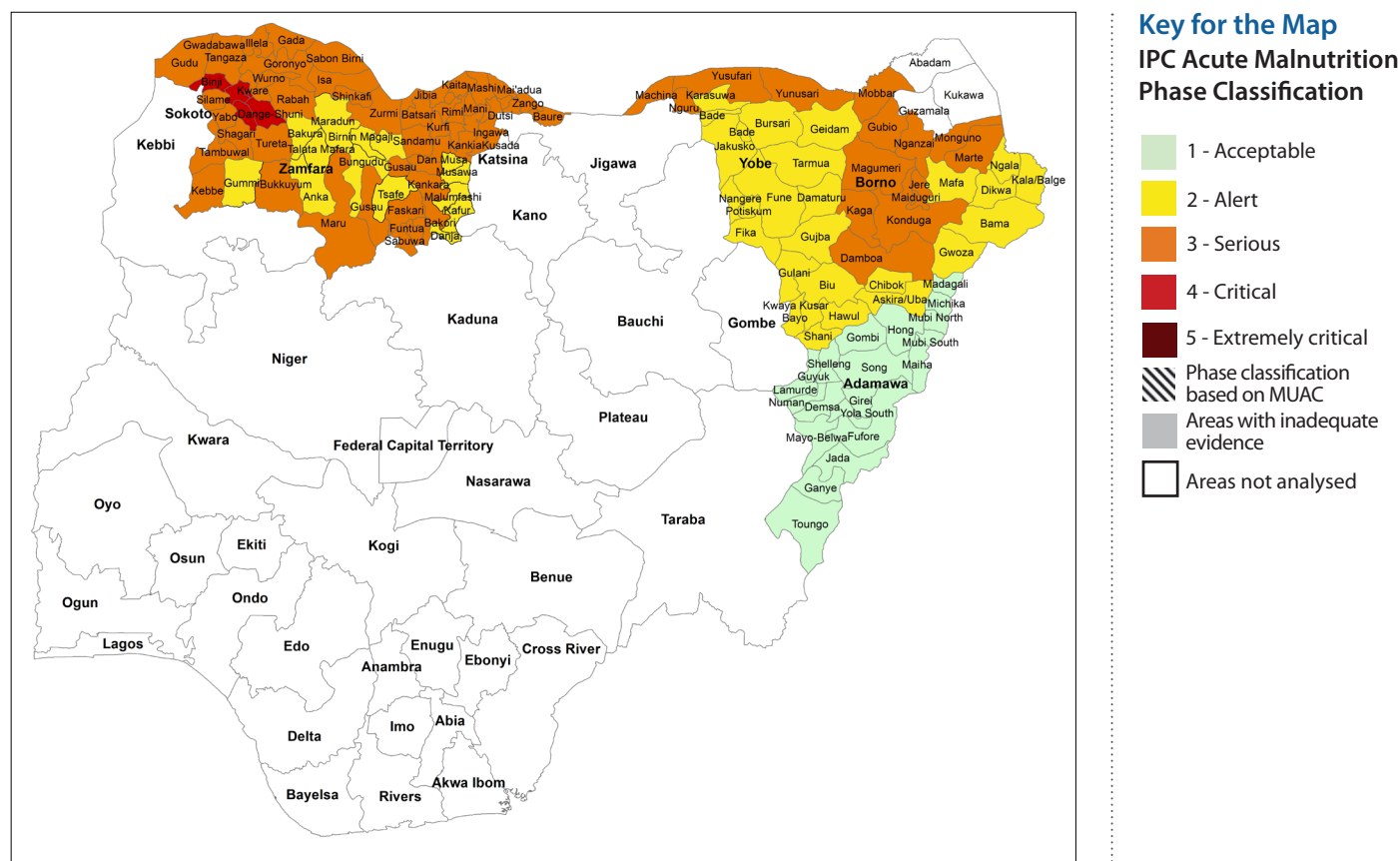
The number of LGAs in Phase 4 has decreased from 17 to 12. This suggests some improvement in the most severe category. However, the number of LGAs in Phase 3 has increased significantly from 25 to 46. This indicates a substantial increase in the areas facing serious nutrition challenges. The number of LGAs in Phase 2 has decreased significantly from 28 to 13.



TOTAL NUMBER OF CASES OF CHILDREN 0-59 MONTHS AND PREGNANT AND LACTATING WOMEN AFFECTED BY ACUTE MALNUTRITION AND IN NEED OF TREATMENT – (NORTHEAST AND NORTHWEST NIGERIA)

State	Domain	# of Children under 5				Pregnant and Lactating women	
		Total #	Estimated # of GAM cases	Estimated # of MAM cases	Estimated # of SAM cases	Total #	Estimated # of GAM cases
Adamawa	Southern Adamawa	616,127	124,766	102,585	22,181	246,451	27,849
Adamawa	Northern Adamawa	386,776	158,385	67,879	90,506	154,710	20,886
Borno	Southern Borno	345,263	132,063	76,130	55,933	138,105	22,097
Borno	Northern Borno	132,487	80,486	56,638	23,848	52,995	9,168
Borno	MMC/Jere	282,474	249,142	188,128	61,014	112,990	15,706
Borno	East Borno	200,784	88,546	70,475	18,071	80,313	14,938
Borno	Central Borno	275,008	188,106	118,804	69,302	110,003	14,850
Yobe	Southern Yobe	531,092	198,363	155,344	43,018	212,437	39,726
Yobe	Northern Yobe	227,537	190,448	96,248	94,200	91,015	24,483
Yobe	Central Yobe	208,243	119,948	86,213	33,735	83,297	17,076
NORTHEAST		3,205,790	1,530,252	1,018,444	511,807	1,282,316	206,779
Katsina	Southern Katsina 3	240,892	127,817	121,410	6,408	96,357	18,693
Katsina	Southern Katsina 2	308,691	166,107	140,300	25,807	123,476	23,337
Katsina	Southern Katsina 1	239,497	138,261	128,250	10,011	95,799	20,118
Katsina	Northern Katsina 2	258,801	170,628	154,892	15,735	103,520	27,743
Katsina	Northern Katsina 1	309,963	175,811	153,432	22,379	123,985	32,484
Katsina	Central Katsina 2	251,438	162,982	144,828	18,154	100,575	22,529
Katsina	Central Katsina 1	363,014	219,986	199,294	20,692	145,205	34,849
Sokoto	Southern Sokoto	252,780	196,157	143,326	52,831	101,112	19,515
Sokoto	Eastern Sokoto 2	339,658	296,861	232,326	64,535	135,863	41,982
Sokoto	Eastern Sokoto 1	251,232	238,218	162,798	75,420	100,493	23,113
Sokoto	Central Sokoto 2	153,564	125,370	85,689	39,681	61,426	15,848
Sokoto	Central Sokoto 1	358,363	307,260	241,895	65,365	143,345	29,386
Zamfara	Western Zamfara	346,778	163,991	113,917	50,075	138,711	20,529
Zamfara	Northern Zamfara	379,147	196,664	162,085	34,578	151,659	28,664
Zamfara	Central Zamfara	422,336	195,837	165,345	30,493	168,934	19,259
NORTHWEST		4,476,153	2,881,951	2,349,788	532,163	1,790,464	378,048

FIRST PROJECTED SITUATION MAP AND OVERVIEW: OCTOBER – DECEMBER 2023



Projected Situation Overview (October to December 2023)

NORTHEAST NIGERIA

The acute malnutrition situation in northeast Nigeria is expected to remain the same during the period of October to December 2023 (no improvement) even though the period corresponds to the decreasing malnutrition (harvest) season compared to the preceding peak malnutrition (lean) season (May to September 2023). It is projected that, only Mafa LGA is expected to improve from IPC AMN Phase 3 (Serious) to IPC AMN Phase 2 (Alert) in the peak malnutrition season. Mobbar and Nnganzai LGAs classified in Phase 2 in the peak malnutrition season, May to September 2024, are likely to deteriorate to Phase 3. The remaining 59 LGAs are expected to remain in the same situation as the current.

The household food availability during this period may be negatively impacted by the delayed rainfalls – with likely concomitant reduction in harvest; the increase in the cost of commodities because of the ripple effect of fuel subsidy removal; and the flooding and inflation. As a result, the household food consumption may not improve during this period which may negatively impact the Minimum Acceptable Diet (MAD) for children and Minimum Dietary Diversity (MDD) for women and thus negatively affect the level of acute malnutrition at a later stage.

Trend Analysis

The AMN levels will likely be better compared to the historical data on AMN levels during this projection period. No LGA is projected to be in Phase 4 and only 15 are projected to be in Phase 3. The remaining LGAs (26) will be in Phase 2 and (21) will be in Phase 1 compared to the same projection periods in the last two years.



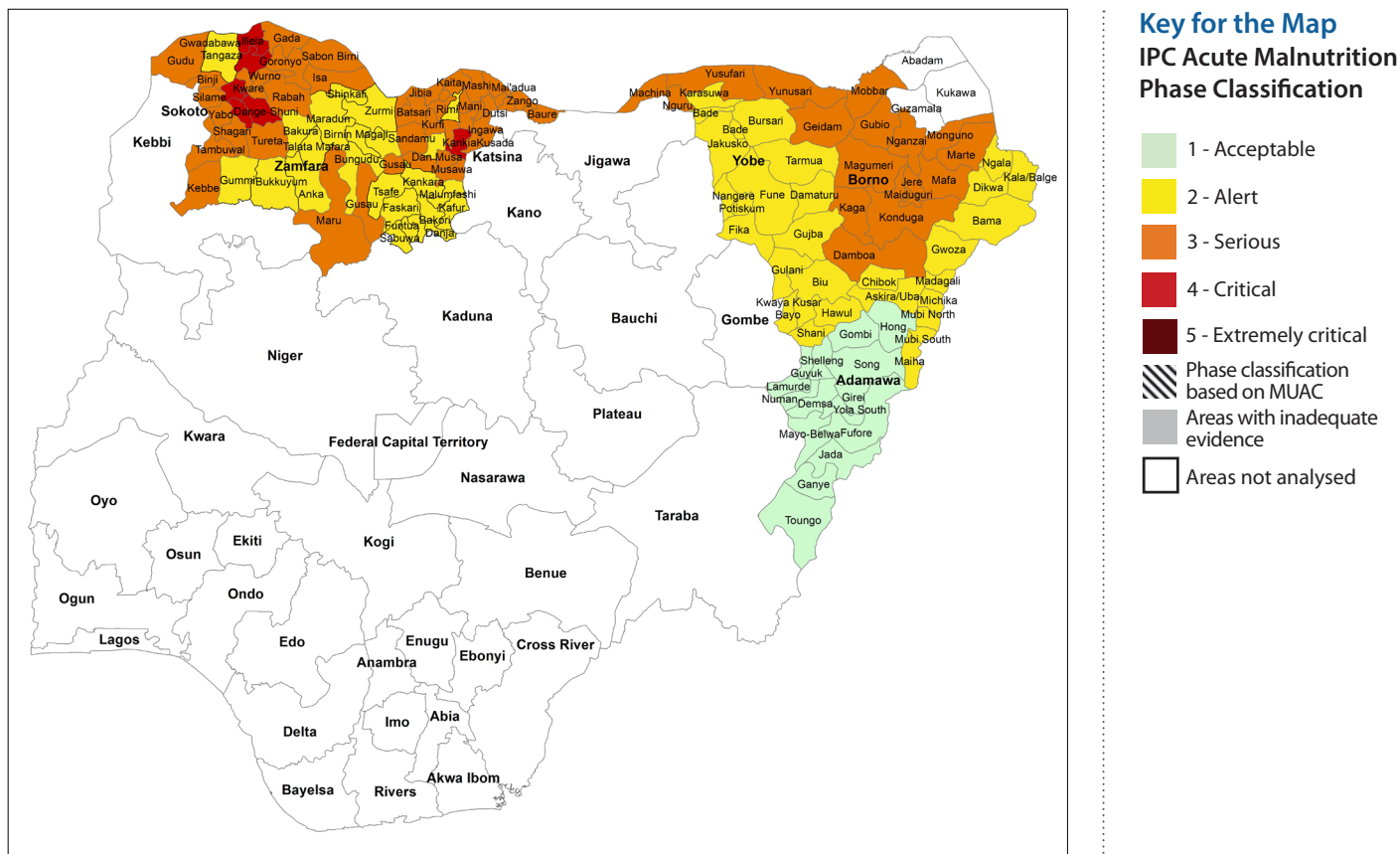
NORTHWEST NIGERIA

The situation of acute malnutrition in the lean malnutrition season (October to December 2023) when compared with the peak malnutrition period, is not expected to improve. That is because 80 percent (n=57) of LGAs are projected to be in either Phase 3 or Phase 4 which is similar to the classification in the current period which was 82 percent (n=58). During this period, acute malnutrition is expected to persist due to the continued risk of insecurity resulting from banditry and farmer-herder clashes leading to loss of farmlands and the displacement of persons. In addition, it is also due to the effects of the removal of the fuel subsidy which has led to a high cost of living (including food insecurity). Epidemics of malaria/fever, diarrhea, measles, and Acute Respiratory Infections (ARIs) as well as poor Water, Sanitation and Hygiene (WASH) practices may also contribute considerably to the already deteriorating acute malnutrition situation.

Trend Analysis

When compared to previous projections, it was projected that there would be 10 LGAs in Phase 4, whereas there are six LGAs expected in this year's projection analysis. As for those expected to be in Phase 3, last year there were about 41 compared to 51 LGAs this year. There were 17 LGAs projected to be in Phase 2 whereas there were 14 this year .

SECOND PROJECTED SITUATION MAP AND OVERVIEW: JANUARY – APRIL 2024



Projected Situation Overview (January to April 2024)

NORTHEAST NIGERIA

The second projection period of January to April 2024 is seasonally known as the low acute malnutrition season and is typically associated with a low level of acute malnutrition. However, in 2024 limited access to farmlands during farming season as a result insecurity and farmer herder conflicts and the ensuing displacement of people as well as the Niger Republic border closure which has impacted trading and economic activities in some the LGAs in the region will likely lead to a depletion of food reserves and may contribute to a worsening level of acute malnutrition in the affected LGAs.

The AMN situation is expected to deteriorate slightly compared to the first projection period. Mafa (in Borno) and Geidam (in Yobe) are expected to deteriorate from IPC AMN Phase 2 (Alert) to IPC AMN Phase 3 (Serious). Madagali, Maiha, Michika, Mubi North and Mubi South (in Adamawa) are expected to deteriorate from IPC AMN Phase 1 (Acceptable) to IPC AMN Phase 2 (Alert). 55 LGAs will remain the same across the BAY States (Borno, Adamawa and Yobe).

Trend Analysis

Historical trends of AMN in the region showed low levels of acute malnutrition in the period of January to April, compared to the peak acute malnutrition season (May to September) and decreasing acute malnutrition season (October to December). The levels of AMN between January and April 2024 are anticipated to be lower than the same period in the previous year (January to April 2023), with no LGA expected to be in IPC Phase 4 (Critical). 17 LGAs are expected to be in Phase 3 compared to 23 (same season of 2022). The number of LGAs in Phase 1 will increase from 5 to 16 when compared with the last IPC AMN analysis (January to April 2023).



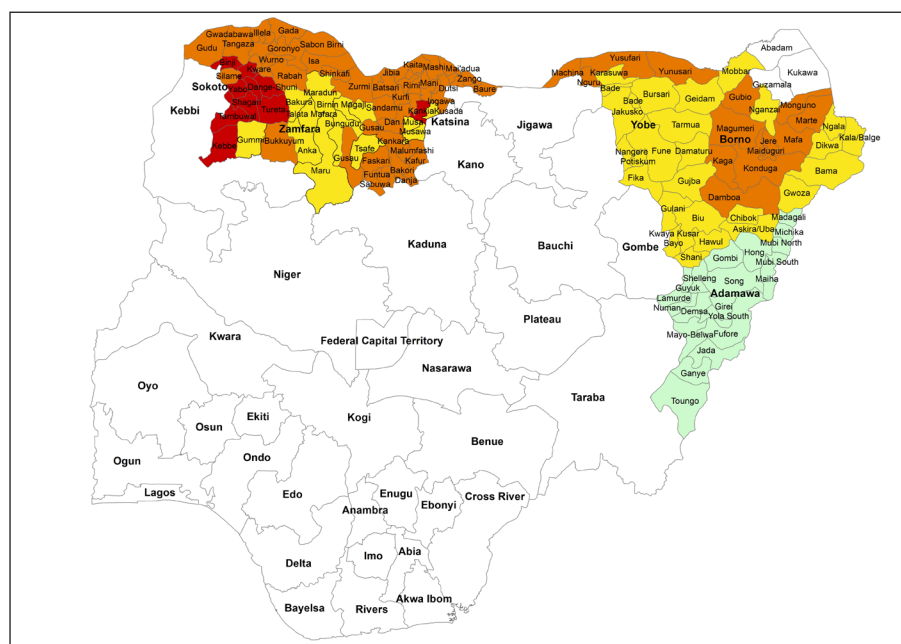
NORTHWEST NIGERIA

The AMN situation is expected to deteriorate between January to April 2024 (low acute malnutrition season) with the number of LGAs in Phase 4 expected to increase from six in the previous projection period to eight (Bodinga, Dange Shuni, Sokoto North, Sokoto South, Wamakko, Gwadabawa, Illela, and Kankia) in this projection period. Similarly, the number of LGAs in Phase 2 may increase from 14 (from the previous projection period) to 24. There may be a significant decrease in the number of LGAs in Phase 3 from 51 (from the previous projection period) to 39 in this projection period. The major contributing factors are limited access to farmlands during farming season as a result of insecurity/banditry and the ensuing displacement of people as well as the Niger Republic border closure which has impacted trading and economic activities in the region. This may lead to the displacement of more people into neighboring LGAs in Sokoto, Katsina and Zamfara States. Therefore, the depletion of food reserves during the projection period of January to April 2024 is expected and may contribute to worsening the level of acute malnutrition.

Trend Analysis

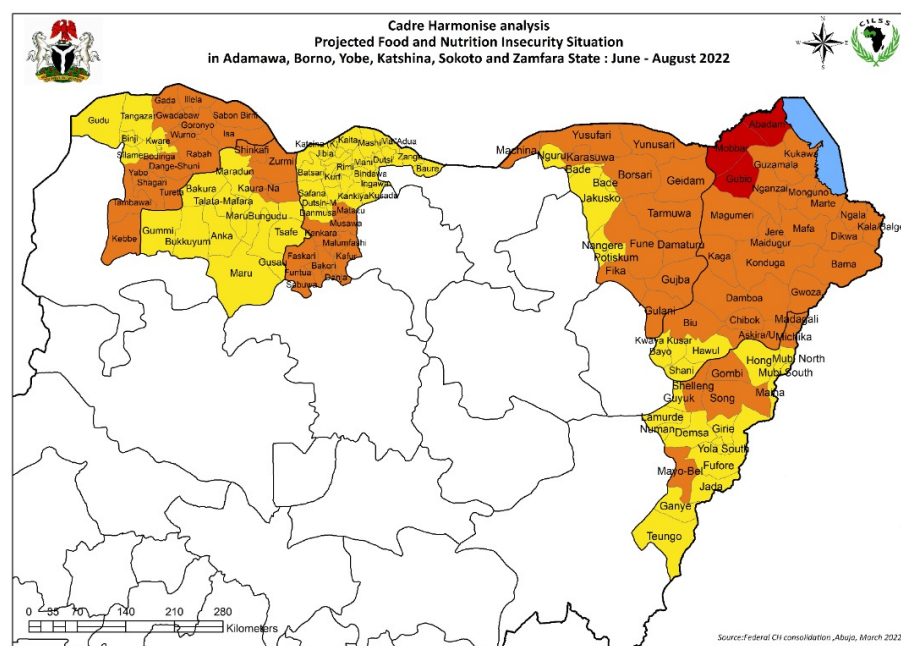
From historical data available, the number of LGAs classified in Phase 2 is expected to increase from 19 to 24 for the same season in 2022 and 2024 respectively. LGAs in Phase 4 are expected to decrease from nine to eight for the same season in 2022 and 2024 respectively.

COMPARISON WITH CADRE HARMONISÉ (CH) CLASSIFICATIONS



Key for the Map IPC Acute Malnutrition Phase Classification

- 1 - Acceptable
- 2 - Alert
- 3 - Serious
- 4 - Critical
- 5 - Extremely critical
- Phase classification based on MUAC
- Areas with inadequate evidence
- Areas not analysed



Key for the Map Cadre Harmonisé Acute Food Insecurity Phase Classification

- 1 - Minimal
- 2 - Stress
- 3 - Crisis
- 4 - Emergency
- 5 - Famine
- Areas with inadequate evidence
- Areas not analysed

The March 2023 Cadre Harmonisé (CH) analysis was conducted at the LGA level for Borno, Adamawa, and Yobe (BAY) states while the analysis for Katsina, Sokoto, and Zamfara states was conducted at the zonal (senatorial) level. Although, the phases for the CH area classification for the six states were reported at the LGA level, the IPC AMN analysis was conducted at the domain level and extrapolated to LGAs. The current IPC AMN period of May to September 2023 (peak malnutrition) when compared to the CH projected period of June to August 2023 (lean season) shows that in Borno State; Jere, Maiduguri Metropolitan, Damboa, Gubio, Kaga, Konduga, Mafa, Magumeri, Marte and Monguno are classified in Phase 3 both in IPC AMN and CH projection of the same period. Bama, Dikwa, Gwoza, Kala-Balge, Mobbar, Nganzai, Asikra Uba, Bayo, Biu, Chibok, Kwaya Kusar, Shani, and Hawul LGAs are in IPC AMN Phase 2 (Alert) compared to CH Phase

3 (Crisis) except Hawul which is in CH Phase 2 (Stressed). The IPC AMN analysis classified all the LGAs in Adamawa State to be in IPC AMN Phase 1 (Acceptable) in the current analysis season. However, the CH classification is between Phase 2 and Phase 3 for the same season. The LGAs in Yobe State; Bade, Bursari, Geidam, Jakusko, Damaturu, Fika, Gujiba, Gulani, Nangere, Potiskum, Tarmuwa and Karasuwa were in IPC AMN Phase 2 (Alert) whereas Machina, Nguru, Yunusari and Yusufusari are in IPC AMN Phase 3 (Serious). However, in CH projection all LGAs ranged between Phase 2 Phase 3 during the same period of analysis.

In Sokoto state, all of the LGA's phases in the IPC AMN range between Phase 3 (Serious) and Phase 4 (Critical) compared to the CH classification of Phase 2 (Stressed) and Phase 3 (Crisis). The current IPC AMN situation in Katsina state indicates that Kankia is in Phase 4 while Kusada, Matazu, and Musawa are in Phase 2 (Alert). All other LGAs are in Phase 3 (Serious). However, in the CH projections for the same analysis period, most of the LGAs are projected in Phase 3 (Crisis). In Zamfara State, Gusau, Bukkuyum, Shinkafi, and Zurmi are in IPC AMN Phase 3 (Serious) while all other LGAs in the state are in IPC AMN Phase 2 (Alert). However, all LGAs were indicated to be in CH Phase 3 (Crisis) by the CH projection for this period. The key drivers of food insecurity and acute malnutrition in the northeast and northwest are protracted insecurity (insurgency, kidnapping, banditry), the impact of the 2022 flood, the impact of removal of fuel subsidy and monetary policies including naira redesign, cashless policy and floating of the naira. The contributing factors include limited access to farmlands, high food prices, limited access to health facilities and water, as well as poor sanitation and hygiene.

THE LIKELY IMPACT OF POLITICAL CRISES IN NIGER REPUBLIC ON ACUTE MALNUTRITION:

Results of the detailed analysis conducted as part of the IPC AMN analysis suggest that the potential impact of political crises in Niger Republic on food security and malnutrition in both northeast and northwest Nigeria will be huge. However, systems are now established to monitor any possible impact in the future. It is important to consider the results of these monitoring systems to determine the need for an update on the IPC AMN projections.

RECOMMENDATIONS FOR ACTION: NORTHEAST NIGERIA

Immediate/short-term recommendations

- Sustain the existing response capacity and modalities throughout the lean season and utilize risk monitoring indicators and early warning systems to adjust (scale-up or scale-down) the response to fit the evolution of the situation in the projection periods.
- Leverage rapid response mechanisms, outreaches, and simplified approaches to deliver curative nutrition interventions in hard-to-reach locations, especially in LGAs in IPC Phase 3 and above, and in the event of sudden population movements.
- Continue the scale-up of targeted supplementary feeding programs using available specially formulated foods (RUSF, Blended Flour such as Tom Brown, etc.) aimed at closing the existing gaps in MAM treatment. Strengthen delivery of treatment programs following recommendations on admission criteria (MUAC, WHZ, and oedema), therapeutic feeding, medical treatment, and discharge criteria.
- Improve the coverage of immunizations (especially measles) and vitamin A supplementation through routine health service delivery points, state outreach days, campaigns such as the Maternal and New-born Child Health Week (MNCHW), World Breast Feeding Week, and Outbreak Response Vaccination.
- Tailor support and messaging on MIYCN and other Social and Behavioral Change (SBC) interventions to emphasize early initiation of breastfeeding, exclusive breastfeeding, continuation of breastfeeding, caregivers' health seeking behavior, personal hygiene and use of locally available food items to prepare and feed children with nutritious foods that contain the required macro and micronutrients.
- Advocate for programs to address epidemics of malaria and diarrheal diseases that have been a recurrent event in the period of peak malnutrition. Ahead of the period of peak malnutrition, implement sets of malaria prevention interventions as well as programs to improve soft and hard components of WASH, especially at the household level.
- Prioritize programs to address maternal and adolescent malnutrition.
- Strengthen the existing mechanisms for early identification and referrals such as the family MUAC approach, routine screening by community health influencers promoters and services such as community nutrition mobilizers, and comprehensive mass MUAC screening either quarterly or in each of the three seasons.

Medium to long-term recommendations

- Leverage the provisions of the guidance on Cash Voucher Assistance (CVA) for nutrition in Nigeria to utilize cash and voucher approaches to strengthen preventive and curative nutrition interventions e.g., supplemental nutrition assistance (including using locally available food items), feeding options for infants without breastfeeding support, food fortification, MAM and SAM treatment.
- Advocate for the operationalization of non-functional health facilities (primary and secondary health care centers) through rehabilitation of dilapidated infrastructure, health workforce development, and provision of pharmaceutical and non-pharmaceutical supplies to deliver an integrated package of health (including MNCH), nutrition and WASH services.
- Engage in multi-risk emergency response preparedness and/or contingency planning ahead of the next lean season and possible population movements that may result from the political crisis in Niger Republic and possible flooding due to the anticipated opening of dams in Cameroon. Advocate for flexibility of grants to finance emergency response and rapid response actions.
- Prioritize multi-sectoral programs and strengthen the integration and/or mainstreaming of livelihood components, protection (including GBV), education, WASH, food security and health interventions into nutrition programs and vice versa.
- Advocate for and promote initiatives and actions that will provide and/or encourage social protection, economic empowerment and income generation (including saving schemes, skills acquisition, credit facilities, etc.), increased land-space for farming, SMART agronomy, micro and macro-gardening, dry season agriculture/irrigation farming, post-harvest management (processing, storage, preservation, etc.) and peacebuilding and conflict mitigation.
- Promote early recovery and resilience building approaches in the nutrition sector and other sectoral programs, targeted at MMC and Jere which host a number of out-of-camp IDPs, and other locations where IDPs have been, or will be resettled.

RECOMMENDATIONS FOR ACTION: NORTHWEST NIGERIA

Immediate/short-term recommendations

- Scale-up existing humanitarian program for the prevention and treatment of malnutrition, such as strengthening Maternal Infant and Young Child Nutrition (MIYCN), Micronutrient Deficiency Control (MNDC) and Integrated Management of Acute Malnutrition (IMAM) services.
- Leverage campaigns such as Maternal, Newborn, and Child Health Week (MNCHW) and other vaccination campaigns to increase access and coverage of high-impact health and nutrition interventions for women and children under five, such as Vitamin A supplementation, deworming, micronutrient supplementation, and routine vaccination.
- Strengthen active case finding and referral of acutely malnourished children (severe and moderate) through house-to-house screening of children aged 0-59 months by Community Health Influencers, Promoters, and Services (CHIPs) agents and the scale-up of family-led Mid Upper Arm Circumference (MUAC) screening.
- Advocate for the adoption of expanded criteria for the admission and treatment of moderately malnourished children to prevent the deterioration of MAM cases into SAM due to the existing gap in the management of MAM.
- Increase access to basic amenities such as shelter, food, health, nutrition, WASH and protection services for displaced populations.
- Strengthen disease surveillance, emergency preparedness and response plans to aid in timely response, including the fall-out from the ongoing political crisis in Niger Republic.

Medium to long-term recommendations

- Strengthen surveillance and intelligence gathering to curb the incidence of insecurity, such as banditry, kidnapping, etc.
- Sustain investment in humanitarian services to cater for the increasing needs, especially among the displaced populations.
- Scale up of social protection services such as the National Social Investment Program (NSIP), cash transfer, food distribution, and other income-generating activities to cushion the existing economic impact on food security and well-being at household levels.
- Scale up of food systems and large-scale agro-economic investment such as multi-seasonal farming (irrigation), access to improved seedlings (early maturing and drought resistant variety seedlings), fertilizers, homestead gardening and livestock rearing, school farms, and storage of farm produce to enhance food availability and accessibility.
- Revitalization of the Baby-Friendly Hospital Initiative (BFHI) and monitoring of Breastmilk Substitute (BMS) code to improve Early Initiation of Breastfeeding (EIB) and Exclusive Breastfeeding (EBF) indicators.
- Robust sensitization and awareness creation on food consumption, caring and feeding practices using contextualized Social Behavioral Change Communication (SBCC) materials to increase appropriate complementary feeding for children 6-23 months which will improve Minimum Dietary Diversity (MDD), Minimum Acceptable Diet (MAD), and Minimum Meal Frequency (MMF).
- Strengthen health systems to improve integration and delivery of quality routine services to the beneficiaries and sensitize communities through existing structures such as CHIPs agents and Ward Development Committees (WDCs) for improved access and uptake of these services.
- Improve access to potable water, sanitation and hygiene (WASH) facilities.
- Put in place pragmatic measures such as price regulation to control inflation.
- Strengthen the Health Information Management System (HMIS) and surveillance for evidence generation and use for decision making.

RISK FACTORS TO MONITOR

The protracted crisis in the northeast has created a complex humanitarian crisis, with widespread displacement, destroyed infrastructure and collapsed basic social services. Overall, recent surveillance outcomes indicate a high burden of malnutrition recorded. Food insecurity and inadequate access to safe nutritious foods, especially in the context of rising food prices, has led to poor feeding. Similarly, diseases and infection trends with poor WASH, low coverage of health services and poor health seeking behaviours have impacted nutritional status of children. Thus, it has become imperative that the following risk factors be closely monitored to improve the situation:

NORTHEAST NIGERIA

1. Flooding and its effects – particularly in LGAs and communities bordering Cameroon Republic.
2. Seasonal trends of common childhood illnesses particularly malaria, respiratory infections, diarrhea and early warning signs for outbreak of cholera, diphtheria and Meningitis.
3. Evolution of trends in crude death rate and under-five mortality rate.
4. Changes in weather patterns in the three periods related to malnutrition.
5. Practice of early initiation of breastfeeding and exclusive breastfeeding within the first two days after birth, as well as household food consumption patterns (MAD and MDD).
6. Population movements in LGAs and communities bordering Niger Republic that may be induced by the political crisis.
7. Comprehensive aid coverage from both humanitarian and government sources. Accessibility of humanitarian assistance and availability of basic services including food, WASH, nutrition, protection and health services in hard-to-reach areas.
8. Market stock and food prices, and the economic impact of recent monetary and fiscal policies like the removal of fuel subsidy, floating of the naira.
9. Civil unrest may result from conflict between farmers and herders and communal clashes.
10. Sub-optimal coverage of preventive and curative nutrition services and public health campaigns to optimize the impact.
11. Household food insecurity, particularly in the tail end of the postharvest season when food stocks are expected to be depleted.



NORTHWEST NIGERIA

1. Insecurity such as banditry, kidnapping, and farmer-herder clashes. These are likely to increase protection-related issues such as Gender-based Violence, Sexual Exploitation and Abuse, limited movement of people, attrition of healthcare workers and hampering of economic-related activities.
2. Disease outbreaks (cholera/acute watery diarrhoea, measles, acute respiratory infections etc.), in addition to malaria/fever, due to seasonal changes, low vaccination coverages and increased population against the limited health and WASH facilities.
3. Niger political crisis: this has led to border closures, with the attendant toll on trading activities and a possible influx of refugees into neighboring LGAs should the situation further deteriorate.
4. Food insecurity due to limited access to farmlands, caused by heightened insecurity and depletion of household supplies because of the influx of displaced persons who are majorly accommodated within the host communities.
5. Poor Maternal, Infant, and Young Child Nutrition (MIYCN) and their impact on caring and feeding practices, especially among pregnant women and children under five, as reflected in sub-optimal breastfeeding and appropriate complementary feeding indicators.
6. Erratic changes in government policies, such as removal of fuel subsidies and other financial policies related to foreign exchange rates, have led to increased cost of living.
7. Flooding leads to loss of agricultural produce, reduced food availability at the household level and limited access to market, health and nutrition services.
8. Population displacement resulting to the over-bearing effects of the influx/ migration of Internally Displaced Persons (IDPs) on the limited structures such as health, nutrition, and WASH facilities at both Primary Health Centers (PHC) and community levels will likely exacerbate the existing poor health-seeking behavior.
9. Funding gaps for humanitarian interventions limiting access to health, nutrition, WASH services and food security and livelihood by the affected population.
10. The sale of farm produce meant for household consumption to meet other needs as coping mechanisms are likely to impact food security at the household level.

PROCESS AND METHODOLOGY

A team consisting of nutrition, health, food security and livelihood, WASH and statistics experts from the field, state and federal level carried out the analysis using the standard IPC Acute Malnutrition protocols covering northeast and northwest regions of Nigeria. The team comprised of representatives from the government, international NGOs, national NGOs, UN organizations, universities and other stakeholders in the nutrition sector and related nutrition sensitive sectors from the two regions and at national levels.

The analysis was jointly organized and coordinated by UNICEF and national government authorities as well as the nutrition sector in the northeast region and was facilitated by the IPC Global Support Unit (IPC GSU) with support from in-country co-facilitators. This analysis, conducted in Kano, Kano State between 21-26 Aug 2023, was the sixth such analysis for the northeast region and second for the northwest region. The analysis workshop included the analysis of the current situation (May – September 2023) and two projections (October – December 2023 and January – April 2024). The two projections represented the decreasing acute malnutrition season (harvest) and low acute malnutrition season (post-harvest) respectively. The IPC AMN Phase classification was conducted at the 136 LGA level, with reanalysed acute malnutrition data from the 25-domain level.

The workshop also included a three-day refresher training on the IPC AMN classification.

Sources of Data

The data used in the analysis mainly came from Nutrition and Food Security Surveillance (NFSS R13 for NE) SOKAZA SMART Round two surveys (for NW) which was collected in June/July 2023 in the northeast and May/June 2023 in the northwest, Joint Approach to Nutrition and Food Security Assessment, (JANFSA), Emergency Food Security Assessment (EFSA), DHIS2 data, the Cadre Harmonisé report and northeast Nigeria Nutrition Sector 5W and other national-level data including the DHIS and DHS.

Limitations of the Analysis

The analysis was limited by lack of historical data at LGA level. This lack of acute malnutrition data at the LGA level particularly hindered the trend analysis. In addition, only limited LGA data was available for many of the risk factors indicators since sampling for surveys was conducted at the “domain level” by combining several LGAs. In many cases, risk factors indicators for basic causes and other outcomes were not available and the inference was made based on national-level data and expert opinion.

The analysis is only valid for accessible areas. Current and historical data of inaccessible areas including three LGAs across Northern Borno domain (namely Abadam, Guzamala and Kukawa) were not available

What is the IPC and IPC Acute Malnutrition:

The IPC is a set of tools and procedures to classify the severity and characteristics of acute food insecurity and acute malnutrition crises as well as chronic food insecurity based on international standards. The IPC consists of four mutually reinforcing functions, each with a set of specific protocols (tools and procedures).

The core IPC parameters include consensus building, convergence of evidence, accountability, transparency and comparability. The IPC analysis aims at informing emergency response as well as medium and long-term food security policy and programming.

The IPC Acute Malnutrition Classification provides information on the severity of acute malnutrition, highlights the major contributing factors to acute malnutrition, and provides actionable knowledge by consolidating wide-ranging evidence on acute malnutrition and contributing factors.

Contact for further Information

IPC Global Support Unit
www.ipcinfo.org

This analysis has been conducted under the patronage of the Ministry of Health and the IPC Technical Working Group of Nigeria, with financial support from the European Commission and the UK Government.

Classification of food insecurity and malnutrition was conducted using the IPC protocols, which are developed and implemented worldwide by the IPC Global Partnership - Action Against Hunger, CARE, CILSS, EC-JRC, FAO, FEWS NET, Global Food Security Cluster, Global Nutrition Cluster, IGAD, Oxfam, PROGRESAN-SICA, SADC, Save the Children, UNICEF and WFP.

Analysis Partners:





NORTHEAST NIGERIA IPC AMN SNAPSHOT

ACUTE MALNUTRITION CURRENT SITUATION MAY-SEP 2023

00 LGA	Extremely Critical
00 LGA	Critical
14 LGA	Serious
27 LGA	Alert
21 LGA	Acceptable

PREVALENCE OF CHILDREN WITH ACUTE MALNUTRITION IN NEED OF TREATMENT



ACUTE MALNUTRITION PROJECTED SITUATION OCT – DEC 2023



ACUTE MALNUTRITION PROJECTED SITUATION JAN – APR 2024



ADMIN UNIT	Northern Adamawa	Southern Adamawa	Central Borno	Northern Borno	East Borno	MMC/Jere	Southern Borno	Southern Yobe	Central Yobe	Northern Yobe	KEY DRIVERS	
% MAM*	4.9	3.7	9.6	9.5	7.8	14.8	4.9	9.2	6.5	9.4	Poor food consumption	Poor health seeking behaviour
% SAM*	1.6	0.4	2.8	2.0	1.0	2.4	1.8	1.8	0.9	4.6		
% GAM*	6.5	4.1	12.4	11.5	8.8	17.2	6.7	11.0	7.4	14.0	Poor access to health services	Sub-optimal child caring practices

*Severe, Moderate and Global Acute Malnutrition

MAY 2023 – APR 2024



1.53M

Cases of children aged 0-59 months acutely malnourished



206,779

Cases of pregnant or lactating women malnourished

IN NEED OF URGENT ACTION

511,807 SAM*

Cases of children aged 0-59 months severely malnourished

1.01M MAM*

Cases of children aged 0-59 months moderately malnourished

3.21M

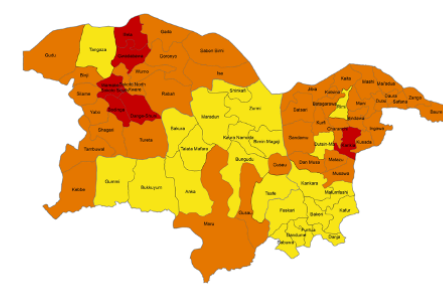
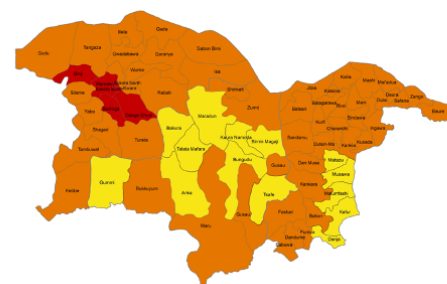
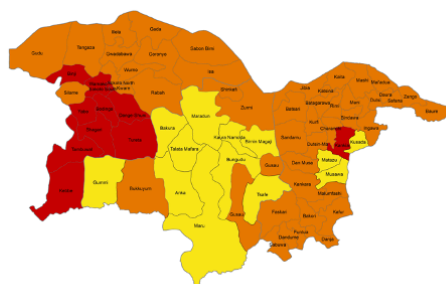
Total population of children <5



NORTHWEST NIGERIA IPC AMN SNAPSHOT

ACUTE MALNUTRITION CURRENT SITUATION MAY-SEP 2023

00 LGA	Extremely Critical
12 LGA	Critical
46 LGA	Serious
13 LGA	Alert
00 LGA	Acceptable

ACUTE MALNUTRITION PROJECTED
SITUATION OCT – DEC 2023ACUTE MALNUTRITION PROJECTED
SITUATION JAN – APR 2024PREVALENCE OF CHILDREN WITH ACUTE
MALNUTRITION IN NEED OF TREATMENT

ADMIN UNIT	C Sokoto 1	C Sokoto 2	E Sokoto 1	E Sokoto 2	S Sokoto	C Katsina 1	C Katsina 2	N Katsina 1	N Katsina 2	S Katsina 1	S Katsina 2	S Katsina 3	C Zamfara	W Zamfara	N Zamfara	KEY DRIVERS	
% MAM*	15.0	12.4	14.4	15.2	12.6	12.2	12.8	11.0	13.3	11.9	10.1	11.2	8.7	7.3	9.5		
% SAM*	4.8	6.8	7.9	5.0	5.5	1.5	1.9	1.9	1.6	1.1	2.2	0.7	1.9	3.8	2.4		
% GAM*	19.8	19.2	22.3	20.2	18.1	13.7	14.7	12.9	14.9	13.0	12.3	11.9	10.6	11.1	11.9	Poor food consumption	Poor health seeking behaviour
																Shocks such as banditry and farmer-herder clash	Poor hygiene and infrastructure

*Severe, Moderate and Global Acute Malnutrition

MAY 2023 – APR 2024



2.89M

Cases of children aged 0-59 months acutely malnourished



378,048

Cases of pregnant or lactating women malnourished

IN NEED OF URGENT ACTION

532,163 SAM*

Cases of children aged 0-59 months severely malnourished

2.35M MAM*

Cases of children aged 0-59 months moderately malnourished

4.48M

Total population of children <5

SUMMARY CONTRIBUTING FACTORS TO ACUTE MALNUTRITION IN NORTH-EAST NIGERIA

[illegible]

[illegible]



ANNEX 2A: TOTAL NUMBER OF CASES OF CHILDREN 0-59 MONTHS AND PREGNANT AND LACTATING WOMEN AFFECTED BY ACUTE MALNUTRITION AND IN NEED OF TREATMENT – NORTHEAST NIGERIA

The expected number of cases of acute malnutrition among children was calculated using the following formula: $n \times p \times k$, where n is the number of children under the age of five (0-59 months), p is the combined prevalence of SAM or MAM for the same age group, and k is the incident correction factor. In line with the country practices, an incident factor of 9 was used in the formula to calculate the total number of SAM cases while an incident factor of 5 was used to calculate the total number of MAM cases.

Zone	Local Government Area	# of Children under 5							Pregnant and Lactating women		
		Total #	Combined GAM %	Combined MAM %	Combined SAM %	Estimated # of GAM cases	Estimated # of MAM cases	Estimated # of SAM cases	Total #	AMN %	# of cases AMN
Southern Adamawa	Demsa	37,242	4.1	3.7	0.4	7,542	6,201	1,341	14,897	11.3	1,683
Southern Adamawa	Fufore	91,432	4.1	3.7	0.4	18,515	15,223	3,292	36,573	11.3	4,133
Southern Adamawa	Ganye	54,969	4.1	3.7	0.4	11,131	9,152	1,979	21,988	11.3	2,485
Southern Adamawa	Girei	46,062	4.1	3.7	0.4	9,327	7,669	1,658	18,425	11.3	2,082
Northern Adamawa	Gombi	56,902	6.5	3.9	2.6	23,301	9,986	13,315	22,761	13.5	3,073
Southern Adamawa	Guyuk	30,117	4.1	3.7	0.4	6,099	5,014	1,084	12,047	11.3	1,361
Northern Adamawa	Hong	55,194	6.5	3.9	2.6	22,602	9,687	12,915	22,078	13.5	2,980
Southern Adamawa	Jada	73,794	4.1	3.7	0.4	14,943	12,287	2,657	29,518	11.3	3,336
Southern Adamawa	Lamurde	22,984	4.1	3.7	0.4	4,654	3,827	827	9,194	11.3	1,039
Northern Adamawa	Madagali	32,017	6.5	3.9	2.6	13,111	5,619	7,492	12,807	13.5	1,729
Northern Adamawa	Maiha	36,094	6.5	3.9	2.6	14,780	6,334	8,446	14,438	13.5	1,949
Southern Adamawa	Mayo-Belwa	58,688	4.1	3.7	0.4	11,884	9,771	2,113	23,475	11.3	2,653
Northern Adamawa	Michika	44,640	6.5	3.9	2.6	18,280	7,834	10,446	17,856	13.5	2,411
Northern Adamawa	Mubi North	48,874	6.5	3.9	2.6	20,014	8,577	11,437	19,550	13.5	2,639
Northern Adamawa	Mubi South	45,206	6.5	3.9	2.6	18,512	7,934	10,578	18,082	13.5	2,441
Southern Adamawa	Numan	18,471	4.1	3.7	0.4	3,740	3,075	665	7,389	11.3	835
Southern Adamawa	Shelleng	25,491	4.1	3.7	0.4	5,162	4,244	918	10,197	11.3	1,152
Northern Adamawa	Song	67,850	6.5	3.9	2.6	27,784	11,908	15,877	27,140	13.5	3,664
Southern Adamawa	Teungo	22,688	4.1	3.7	0.4	4,594	3,778	817	9,075	11.3	1,025
Southern Adamawa	Yola North	46,814	4.1	3.7	0.4	9,480	7,794	1,685	18,726	11.3	2,116
Southern Adamawa	Yola South	87,374	4.1	3.7	0.4	17,693	14,548	3,145	34,950	11.3	3,949



Zone	Local Government Area	# of Children under 5							Pregnant and Lactating women		
		Total #	Combined GAM %	Combined MAM %	Combined SAM %	Estimated # of GAM cases	Estimated # of MAM cases	Estimated # of SAM cases	Total #	AMN %	# of cases AMN
Northern Borno*	Abadam*	23,839	11.5	9.5	2.0	14,482	10,191	4,291	9,536	17.3	1,650
Southern Borno	Askira/Uba	63,351	6.7	4.9	1.8	24,232	13,969	10,263	25,340	16.0	4,054
Eastern Borno	Bama	51,645	8.8	7.8	1.0	22,775	18,127	4,648	20,658	18.6	3,842
Southern Borno	Bayo	39,060	6.7	4.9	1.8	14,941	8,613	6,328	15,624	16.0	2,500
Southern Borno	Biu	74,207	6.7	4.9	1.8	28,384	16,363	12,022	29,683	16.0	4,749
Southern Borno	Chibok	25,507	6.7	4.9	1.8	9,756	5,624	4,132	10,203	16.0	1,632
Central Borno	Damboa	46,231	12.4	9.6	2.8	31,622	19,972	11,650	18,493	13.5	2,496
Eastern Borno	Dikwa	26,906	8.8	7.8	1.0	11,866	9,444	2,422	10,763	18.6	2,002
Central Borno	Gubio	34,792	12.4	9.6	2.8	23,798	15,030	8,768	13,917	13.5	1,879
Northern Borno	Guzamala*	20,432	11.5	9.5	2.0	12,412	8,735	3,678	8,173	17.3	1,414
Eastern Borno	Gwoza	54,592	8.8	7.8	1.0	24,075	19,162	4,913	21,837	18.6	4,062
Southern Borno	Hawul	63,321	6.7	4.9	1.8	24,220	13,962	10,258	25,328	16.0	4,053
MMC/Jere	Jere	112,670	17.2	14.8	2.4	99,375	75,038	24,337	45,068	13.9	6,264
Central Borno	Kaga	25,477	12.4	9.6	2.8	17,426	11,006	6,420	10,191	13.5	1,376
Eastern Borno	Kala/Balge	14,809	8.8	7.8	1	6,531	5,198	1,333	5,923	18.6	1,102
Central Borno	Konduga	41,469	12.4	9.6	2.8	28,365	17,915	10,450	16,588	13.5	2,239
Northern Borno*	Kukawa*	23,378	11.5	9.5	2	14,202	9,994	4,208	9,351	17.3	1,618
Southern Borno	Kwaya/Kusar	32,055	6.7	4.9	1.8	12,261	7,068	5,193	12,822	16.0	2,052
Central Borno	Mafa	21,357	12.4	9.6	2.8	14,608	9,226	5,382	8,543	13.5	1,153
Central Borno	Magumeri	43,625	12.4	9.6	2.8	29,839	18,846	10,993	17,450	13.5	2,356
MMC/Jere	Maiduguri	169,804	17.2	14.8	2.4	149,767	113,089	36,678	67,922	13.9	9,441
Central Borno	Marte*	18,486	12.4	9.6	2.8	12,645	7,986	4,659	7,395	13.5	998
Northern Borno	Mobbar	43,804	11.5	9.5	2	26,611	18,726	7,885	17,521	17.3	3,031
Central Borno	Monguno	43,570	12.4	9.6	2.8	29,802	18,822	10,980	17,428	13.5	2,353
Eastern Borno	Ngala	52,831	8.8	7.8	1	23,299	18,544	4,755	21,133	18.6	3,931
Northern Borno	Nganzai	21,034	11.5	9.5	2	12,778	8,992	3,786	8,414	17.3	1,456
Southern Borno	Shani	47,761	6.7	4.9	1.8	18,269	10,531	7,737	19,105	16.0	3,057



Zone	Local Government Area	# of Children under 5							Pregnant and Lactating women		
		Total #	Combined GAM %	Combined MAM %	Combined SAM %	Estimated # of GAM cases	Estimated # of MAM cases	Estimated # of SAM cases	Total #	AMN %	# of cases AMN
Central Yobe	Bade	46,774	11	9.2	1.8	26,942	19,364	7,577	18,710	20.5	3,835
Central Yobe	Bursari	44,358	11	9.2	1.8	25,550	18,364	7,186	17,743	20.5	3,637
Southern Yobe	Damaturu	73,537	7.4	6.5	0.9	27,466	21,510	5,957	29,415	18.7	5,501
Southern Yobe	Fika	64,416	7.4	6.5	0.9	24,059	18,842	5,218	25,766	18.7	4,818
Southern Yobe	Fune	102,885	7.4	6.5	0.9	38,428	30,094	8,334	41,154	18.7	7,696
Central Yobe	Geidam	64,212	11	9.2	1.8	36,986	26,584	10,402	25,685	20.5	5,265
Southern Yobe	Gujba	47,834	7.4	6.5	0.9	17,866	13,991	3,875	19,134	18.7	3,578
Southern Yobe	Gulani	57,768	7.4	6.5	0.9	21,576	16,897	4,679	23,107	18.7	4,321
Central Yobe	Jakusko	52,899	11	9.2	1.8	30,470	21,900	8,570	21,160	20.5	4,338
Northern Yobe	Karasuwa	32,185	14	9.4	4.6	26,939	13,614	13,325	12,874	26.9	3,463
Northern Yobe	Machina	35,238	14	9.4	4.6	29,494	14,906	14,588	14,095	26.9	3,792
Southern Yobe	Nangere	38,944	7.4	6.5	0.9	14,545	11,391	3,154	15,577	18.7	2,913
Northern Yobe	Nguru	45,396	14	9.4	4.6	37,996	19,202	18,794	18,158	26.9	4,885
Southern Yobe	Potiskum	102,365	7.4	6.5	0.9	38,233	29,942	8,292	40,946	18.7	7,657
Southern Yobe	Tarmua	43,343	7.4	6.5	0.9	16,189	12,678	3,511	17,337	18.7	3,242
Northern Yobe	Yunusari	59,357	14	9.4	4.6	49,682	25,108	24,574	23,743	26.9	6,387
Northern Yobe	Yusufari	55,361	14	9.4	4.6	46,337	23,418	22,920	22,144	26.9	5,957
Total		3,205,790				1,530,252	1,018,444	511,807	1,282,316		206,779

*Inaccessible areas, no data available; N/A: Not applicable



TOTAL NUMBER OF CASES OF CHILDREN 0-59 MONTHS AND PREGNANT AND LACTATING WOMEN AFFECTED BY ACUTE MALNUTRITION AND IN NEED OF TREATMENT – NORTHWEST NIGERIA

The expected number of cases of acute malnutrition among children was calculated using the following formula: $n \times p \times k$, where n is the number of children under the age of five (0-59 months), p is the combined prevalence of SAM or MAM for the same age group, and k is the incident correction factor. In line with the country practices, an incident factor of 3.8 was used in the formula to calculate the total number of SAM cases while an incident factor of 5 was used to calculate the total number of MAM cases.

Zone	Local Government Area	# of Children under 5							Pregnant and Lactating women		
		Total #	Combined GAM %	Combined MAM %	Combined SAM %	Estimated # of GAM cases	Estimated # of MAM cases	Estimated # of SAM cases	Total #	AMN %	# of cases AMN
Central Katsina 1	Batsari	50,859	12.3	10.1	2.2	27,367	23,115	4,252	20,344	18.9	3,845
Central Katsina 2	Dan Musa	62,845	13.7	12.2	1.5	38,084	34,502	3,582	25,138	24.0	6,033
Southern Katsina 1	Dandume	71,154	13.7	12.2	1.5	43,119	39,064	4,056	28,462	24.0	6,831
Northern Katsina 1	Daura	67,221	12.9	11	1.9	38,128	33,274	4,853	26,888	26.2	7,045
Central Katsina 2	Dutsin Ma	51,875	14.9	13.3	1.6	34,201	31,047	3,154	20,750	26.8	5,561
Southern Katsina 1	Faskari	46,855	14.9	13.3	1.6	30,892	28,043	2,849	18,742	26.8	5,023
Central Katsina 1	Jibia	38,710	14.7	12.8	1.9	25,092	22,297	2,795	15,484	22.4	3,468
Southern Katsina 2	Kafur	69,079	12.3	10.1	2.2	37,172	31,397	5,775	27,632	18.9	5,222
Central Katsina 1	kaita	62,786	13.7	12.2	1.5	38,048	34,470	3,579	25,114	24.0	6,027
Southern Katsina 2	Kankara	83,671	12.3	10.1	2.2	45,023	38,028	6,995	33,468	18.9	6,326
Southern Katsina 3	Kankia	51,561	11.9	11.2	0.7	27,358	25,987	1,372	20,624	19.4	4,001
Central Katsina 1	Katsina	108,431	13.7	12.2	1.5	65,709	59,529	6,181	43,372	24.0	10,409
Central Katsina 2	Kurfi	40,035	14.7	12.8	1.9	25,951	23,060	2,891	16,014	22.4	3,587
Southern Katsina 3	Kusada	33,799	11.9	11.2	0.7	17,934	17,035	899	13,520	19.4	2,623
Northern Katsina 1	Mai'Adua	68,498	12.9	11	1.9	38,852	33,907	4,946	27,399	26.2	7,179
Southern Katsina 2	Malumfashi	62,282	12.3	10.1	2.2	33,514	28,307	5,207	24,913	18.9	4,709
Northern Katsina 2	Mani	60,255	14.9	13.3	1.6	39,726	36,062	3,663	24,102	26.8	6,459
Northern Katsina 2	Mashi	58,950	14.9	13.3	1.6	38,866	35,281	3,584	23,580	26.8	6,319
Southern Katsina 3	Matazu	39,267	11.9	11.2	0.7	20,835	19,790	1,044	15,707	19.4	3,047
Southern Katsina 3	Musawa	58,466	11.9	11.2	0.7	31,022	29,467	1,555	23,387	19.4	4,537
Central Katsina 2	Rimi	52,348	14.7	12.8	1.9	33,932	30,152	3,780	20,939	22.4	4,690



Zone	Local Government Area	# of Children under 5							Pregnant and Lactating women		
		Total #	Combined GAM %	Combined MAM %	Combined SAM %	Estimated # of GAM cases	Estimated # of MAM cases	Estimated # of SAM cases	Total #	AMN %	# of cases AMN
Southern Katsina 1	Sabuwa	46,323	13	11.9	1.1	26,742	24,806	1,936	18,529	21.0	3,891
Central Katsina 2	Safana	62,574	14.7	12.8	1.9	40,561	36,043	4,518	25,030	22.4	5,607
Northern Katsina 1	Sandamu	46,744	12.9	11	1.9	26,513	23,138	3,375	18,698	26.2	4,899
Northern Katsina 1	Zango	52,688	12.9	11	1.9	29,885	26,081	3,804	21,075	26.2	5,522
Central Sokoto 2	Binji	38,511	19.2	12.4	6.8	31,440	21,489	9,951	15,404	26	3,974
Central Sokoto 1	Bodinga	64,317	19.8	15	4.8	55,145	43,414	11,731	25,727	21	5,274
Central Sokoto 1	Dange-Shuni	71,335	19.8	15	4.8	61,163	48,151	13,012	28,534	21	5,849
Eastern Sokoto 2	Gada	91,033	20.2	15.2	5	79,563	62,267	17,296	36,413	31	11,252
Eastern Sokoto 1	Goronyo	66,843	22.3	14.4	7.9	63,381	43,315	20,066	26,737	23	6,150
Central Sokoto 2	Gudu	35,034	19.2	12.4	6.8	28,601	19,549	9,053	14,013	26	3,615
Eastern Sokoto 2	Gwada-bawa	84,833	20.2	15.2	5	74,144	58,026	16,118	33,933	31	10,485
Eastern Sokoto 2	Illela	55,180	20.2	15.2	5	48,227	37,743	10,484	22,072	31	6,820
Eastern Sokoto 1	Isa	53,572	22.3	14.4	7.9	50,797	34,715	16,082	21,429	23	4,929
Southern Sokoto	Kebbe	45,709	18.1	12.6	5.5	35,470	25,917	9,553	18,284	19	3,529
Eastern Sokoto 2	Kware	49,098	20.2	15.2	5	42,911	33,583	9,329	19,639	31	6,068
Eastern Sokoto 1	Rabah	54,695	22.3	14.4	7.9	51,862	35,442	16,419	21,878	23	5,032
Eastern Sokoto 1	Sabon -Birni	76,121	22.3	14.4	7.9	72,178	49,327	22,852	30,449	23	7,003
Southern Sokoto	Shagari	57,353	18.1	12.6	5.5	44,506	32,519	11,987	22,941	19	4,428
Central Sokoto 2	Silame	38,273	19.2	12.4	6.8	31,246	21,356	9,890	15,309	26	3,950
Central Sokoto 1	Sokoto North	85,379	19.8	15	4.8	73,204	57,631	15,573	34,152	21	7,001
Central Sokoto 1	Sokoto South	71,470	19.8	15	4.8	61,279	48,242	13,036	28,588	21	5,861
Southern Sokoto	Tambuwal	82,477	18.1	12.6	5.5	64,002	46,764	17,238	32,991	19	6,367
Central Sokoto 2	Tangaza	41,747	19.2	12.4	6.8	34,082	23,295	10,787	16,699	26	4,308
Southern Sokoto	Tureta	25,070	18.1	12.6	5.5	19,454	14,214	5,240	10,028	19	1,935
Central Sokoto 1	Wammako	65,862	19.8	15	4.8	56,470	44,457	12,013	26,345	21	5,401



Zone	Local Government Area	# of Children under 5							Pregnant and Lactating women		
		Total #	Combined GAM %	Combined MAM %	Combined SAM %	Estimated # of GAM cases	Estimated # of MAM cases	Estimated # of SAM cases	Total #	AMN %	# of cases AMN
Eastern Sokoto 2	Wurno	59,514	20.2	15.2	5	52,015	40,708	11,308	23,806	31	7,356
Southern Sokoto	Yabo	42,172	18.1	12.6	5.5	32,725	23,911	8,814	16,869	19	3,256
Western Zamfara	Anka	50,117	11.1	7.3	3.8	23,700	16,464	7,237	20,047	15	2,967
Northern Zamfara	Bakura	65,836	11.9	9.5	2.4	34,149	28,145	6,004	26,334	19	4,977
Northern Zamfara	Birnin -Magaji	62,917	11.9	9.5	2.4	32,635	26,897	5,738	25,167	19	4,757
Western Zamfara	Bukkuyum	74,546	11.1	7.3	3.8	35,253	24,489	10,765	29,819	15	4,413
Central Zamfara	Bungudu	90,850	10.6	8.7	1.9	42,127	35,568	6,559	36,340	11	4,143
Western Zamfara	Gumi	72,048	11.1	7.3	3.8	34,071	23,668	10,404	28,819	15	4,265
Central Zamfara	Gusau	134,966	10.6	8.7	1.9	62,584	52,839	9,745	53,987	11	6,154
Northern Zamfara	Kauran-Namoda	99,110	11.9	9.5	2.4	51,408	42,369	9,039	39,644	19	7,493
Western Zamfara	Maradun	74,271	11.1	7.3	3.8	35,123	24,398	10,725	29,709	15	4,397
Central Zamfara	Maru	102,820	10.6	8.7	1.9	47,678	40,254	7,424	41,128	11	4,689
Northern Zamfara	Shinkafi	47,782	11.9	9.5	2.4	24,784	20,427	4,358	19,113	19	3,612
Western Zamfara	Talata-Mafara	75,795	11.1	7.3	3.8	35,844	24,899	10,945	30,318	15	4,487
Central Zamfara	Tsafe	93,700	10.6	8.7	1.9	43,449	36,683	6,765	37,480	11	4,273
Northern Zamfara	Zurmi	103,502	11.9	9.5	2.4	53,687	44,247	9,439	41,401	19	7,825
Total		4,476,153				2,881,951	2,349,788	532,163	1,790,464		378,048