



REPORT OF THE INTEGRATED FOOD SECURITY  
PHASE CLASSIFICATION  
ANALYSIS FOR UGANDA

**PREPARED BY**

**UGANDA IPC TECHNICAL WORKING GROUP**

JANUARY 2017

## List of Acronyms

ARI	Acute Respiratory Infection
BBW	Banana Bacterial Wilt
BMI	Body Mass Index
CBPP	Contagious Bovine Pleuropneumonia
CBSD	Cassava Brown Streak Disease
CCPP	Contagious Caprine Pleuropneumonia
CMR	Crude Mortality Rate
CMV	Cassava Mosaic Virus
ECF	East Coast Fever
FAO	Food and Agriculture Organisation of the United Nations
FCS	Food Consumption Score
FSNA	Food Security and Nutrition Assessment
FEWSNET	Famine Early Warning Systems Network
GAM	Global Acute Malnutrition
HA	Humanitarian Assistance
HDDS	Household Dietary Diversity Score
IPC	Integrated Food Security Phase Classification
NGOs	Non Governmental Organisations
MAAIF	Ministry of Agriculture, Animal Industries and Fisheries
MOH	Ministry of Health
MOWE	Ministry of Water and Environment
OPM	Office of the Prime Minister
SAM	Severe Acute Malnutrition
U5MR	Under Five Mortality Rate
UBOS	Uganda Bureau of Statistics
WFP	World Food Programme

## **Acknowledgements**

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# CHAPTER ONE

## FOOD SECURITY ANALYSIS METHODOLOGY AND SCOPE

### 1.1 Background

The IPC is a set of protocols (tools and procedures) to classify the severity of food insecurity and provide actionable knowledge for decision support. The IPC consolidates wide-ranging evidence on food-insecure people to provide core answers to the following questions: *How severe is the situation? Where are areas that are food insecure? How many people are food insecure? Who are the food-insecure people in terms of socio-economic characteristics? Why are the people food insecure?*

The IPC has four functions: (1) Building Technical Consensus; (2) Classifying Severity and Causes; (3) Communicating for Action; and (4) Quality Assurance. Each function includes protocols to guide the work of food security analysts. By systematizing these core aspects of food security analysis, the IPC contributes to developing standards and building capacity for food security professionals. The IPC approach is designed to be applicable in any context irrespective of the type of food insecurity, hazard, socio-economic, livelihood, institutional or data context. The IPC is developed around field realities and enables this plethora of diversity to be brought together in a systematic manner for decision-makers.

### 1.2 IPC Approach

The approach of the IPC is to draw together all available food security information (or ‘evidence’), to make a Phase Classification and /or Risk of Worsening Phase statement. The IPC relies on, and indeed encourages, multiple data sources and methods. Classification is based on convergence of evidence of current or projected most likely conditions, including effects of humanitarian assistance to arrive at a ‘big picture’ analysis, or meta-analysis, of the overall food security situation. The outcomes of the process are several communication tools – specifically a map that conveys the key messages about the severity and magnitude of food insecurity.

The IPC standardized scale categorizes the severity of acute food insecurity into five levels of food security (called ‘phases’): Minimal / None, Stressed, Crisis, Emergency, and Famine / Catastrophe. The table below indicates the general descriptions of these phases.

**Table 1: General Descriptions of IPC Phases**

	Phase 1 Minimal	Phase 2 Stressed	Phase 3 Crisis	Phase 4 Emergency	Phase 5 Famine
Phase Name and Description	More than four in five households (HHs) are able to meet essential food and non-food needs without engaging in atypical, unsustainable strategies to access food and income, including any reliance on humanitarian assistance	Even with any humanitarian assistance at least one in five HHs in the area have the following or worse:  Minimally adequate food consumption but are unable to afford some essential non food expenditures without engaging in irreversible coping strategies.	Even with any humanitarian assistance at least one in five HHs in the area have the following or worse:  Food consumption gaps with high or above usual acute malnutrition OR Are marginally able to meet minimum food needs only with accelerated depletion of livelihood assets that will lead to food consumption gaps.	Even with any humanitarian assistance at least one in five HHs in the area have the following or worse:  Large food consumption gaps resulting in very high acute malnutrition and excess mortality OR Extreme loss of livelihood assets that will lead to food consumption gaps in the short term.	Even with any humanitarian assistance at least one in five HHs in the area have an extreme lack of food and other basic needs where starvation, death, and destitution are evident.  (Evidence for all three criteria of food consumption, wasting, and CDR is required to classify Famine.)

### 1.3 Acute Food Insecurity Analysis- January to March 2017

This analysis was conducted at a workshop held at Ridar Hotel, Mukono from 16<sup>th</sup> – 20<sup>th</sup>, January, 2017. It was attended by 50 participants: 30 from Districts representing all regions of Uganda, and 20 were members of the IPC Technical Working Group representing relevant NGOs, UN Agencies and Ministries that handle food security, water and sanitation, health and nutrition related activities. The workshop was facilitated by the IPC TWG, MAAIF and OPM.

The main objective of this analysis was to update the Acute IPC food security classification for Uganda for the period January to March 2017. This acute food insecurity is a snapshot in time of the current or projected severity of the situation, regardless of the causes, context, or duration. This analysis is providing the current food security situation in January 2017 and giving projections up to May 2017. The purpose is to inform short term strategic interventions for the communities facing food insecurity issues in all regions of Uganda.

### 1.4 Methodology

The methodology applied the “meta-analysis” approach of the Integrated Food Security Phase Classification (IPC), in which the following main steps were undertaken.

#### Step 1: Assessment of the current food security situation in the country

The 2015/16 El Niño event seriously impacted the Eastern, Central, and South Western regions of Uganda. Uganda experienced a prolonged dry spell from March to August 2016 following an El Niño event, which resulted in insufficient rain leading to crop failure and suppressed harvests in most parts of the country. It had been forecasted that the El Niño event would be followed by La Niña, potentially exacerbating the already fragile food security situation of millions in Uganda. Analyses of remote sensing data showed several parts of the country experiencing a deterioration in crop and pasture conditions that could have a bearing on crop performance and eventual harvests that were expected from the second season of 2016. The Government’s early warning system, supported by development partners’ ongoing monitoring of the country’s food security situation, indicated that a proportion of the population were already experiencing severe shortage of food as a result of delayed and short lived rainfall. The situation was expected to deteriorate further. There was thus need for data to confirm the number of people affected by the 2015/16 El Niño/La Nina impacts and its effect on food security of the population.



A nation-wide food security assessment was thus coordinated by OPM's Department of Relief, Disaster Preparedness and Management, supported by the World Bank to inform Government and concerned development partners' decision-making processes regarding whether there was a need to intervene, as well as the types and timing of such interventions to bring people back to a normal food security situation in the short term and/or long term. The specific objectives of the assessment were to identify the affected populations and the severity of the food insecurity situation; the key drivers and underlying factors and the priority response mechanisms to guide government interventions. Secondary data was collected using a set of 3 questionnaires that included a crop, livestock and fisheries production questionnaire, a mixed group discussion questionnaire and a health and nutrition questionnaire. These were administered to the district production officers, the district health officer and the community. The questionnaires were sent out on 16<sup>th</sup> December 2016 to all districts and responses were received from 84 out of 116 districts. A successfully conducted regional workshop to which 50 district production officers (representing parent districts) were invited was held in Jinja from 9- 13<sup>th</sup> January 2016 to compile 11 regional reports that would then be used for the IPC analysis (*see*: Annex 1- Region and District lists).

### **Step 2: Literature Review**

The literature review included documents, reports, studies and data on food security, poverty, nutrition and hazards related to key reference outcomes and indirect supportive evidence. This information was derived from various sources published by the government, academic institutions, UN Agencies and local & international NGOs. The literature review allowed the team to identify the relevant indicators and other supportive evidence that could be used for the exercise. These documents were also used as reference materials for the overall synthesis of sections on food availability, access and utilization, as well as livelihoods.

### **Step 3: Indicator Selection**

The selection of key reference outcomes (direct evidence) generally depends on what data is available. After thoroughly scrutinizing all the relevant data that could be collated from various sources and stakeholders, the following broad indicators were selected for the analysis: Mortality rate, Malnutrition, Disease incidence, Food access, Food availability, Food consumption, Dietary diversity, Water access/availability, Coping, Structural issues (Road accessibility), Hazards and vulnerabilities, and Livelihood Assets (5 capitals).

### **Step 4: Unit of Analysis**

After a review of the available data, it was decided that the IPC analysis would be undertaken at a regional level. Many indicators, though very relevant for the overall analysis, were used as indirect and supporting evidence due to lack of internationally recognized thresholds for classification. The IPC color coding, therefore, became green for Phase 1, yellow Phase 2, orange for Phase 3, red for Phase 4 and dark red for Phase 5.

### **Step 5: Filling up the IPC Analysis Template for each region**

Each key reference outcome was analyzed separately and the appropriate indicative phase for each indicator was determined. To support the analysis, templates are prepared to provide rigor and transparency. The templates record details of each indicator. In addition to source, collection dates and geographic coverage, the templates also capture the evidence reliability score for each piece of evidence to be assigned by the analysts to the particular data set.

## **Step 6: Assigning Phase Classification and Mapping Results**

After the templates were filled in with the data/information, each region was assigned a food security phase as reflected from the data. The overall impact of the combined information (direct and indirect evidence) was considered while assigning an overall phase classification to each region. The resulting classification is illustrated in a map with color codes for each Phase. Relevant information on population, trends was also included.

### **1.5 Limitations**

- Inadequate data at the time of the analysis on some outcome indicators mainly on mortality and malnutrition.
- The analysis was mainly based on secondary data collected from key informants from DLGs and focus group discussions. There was need to collect household level data to support information provided by key informant and FGDs.
- Absence of seasonal weather forecast (MAM) during the period of analysis.

### **1.6 Summary of findings**

The proportion of food secure population (phase 1) has declined from 83% in July 2016 to 69% in January 2017. An estimated 10.9 million people are experiencing acute food insecurity (phase 2 and 3), of which 1.6 million (5%) are in a crisis situation (phase 3). Those in phase 3 are found in Central-1 (0.58 million); Karamoja (0.12 million), Teso (0.2 million), East Central (0.38 million) and South Western (0.31 million) regions. All regions in the country have a combined food security stressed population of 9.3 million (26%). The worsening food security situation is attributed to the effects of the 2016 La nina event which resulted into reduced crop and livestock production. There has also been excessive sale of food resulting into reduced household stocks and high food prices. Resurgence of crop and livestock pests and diseases contributed to reduction in production.

**69% of the total population in the country is minimally food insecure (IPC Phase 1).** This population's food security situation is stable and has access to a variety of adequate food both from household stocks and the market. These households still have food stocks from the second harvest that are expected to last for the next 2-3 months and there is unlikely to be any food shortages for those that depend on market purchase. This proportion of the population have adequate income to purchase food from the markets. However, livestock production for this population is average due to declining pasture and water conditions as dry conditions persist. The population currently in IPC Phase 1 is expected to remain in the same phase though stress may increase just before the rains start.

**26% of the total population in the country is facing stressed food insecurity (IPC Phase 2).** This population has minimum adequate food consumption, are employing insurance strategies and are unable to afford some essential non-food expenditures.

All regions in the country have a stressed population with East Central having the highest population (1.88 million) followed by South Western (1.24 million), Teso (1.1 million) and West Nile (1.04 million). The prolonged dry spell due to the La nina event coupled with increasing incidences of crop and livestock pests and diseases such as Cassava Brown Streak, Cassava Mosaic, maize stalk borer, striga and Banana Bacterial Wilt grossly affected production reducing the availability and accessibility of food for this population. The low crop and livestock production negatively impacted household food stocks leading to increased reliance

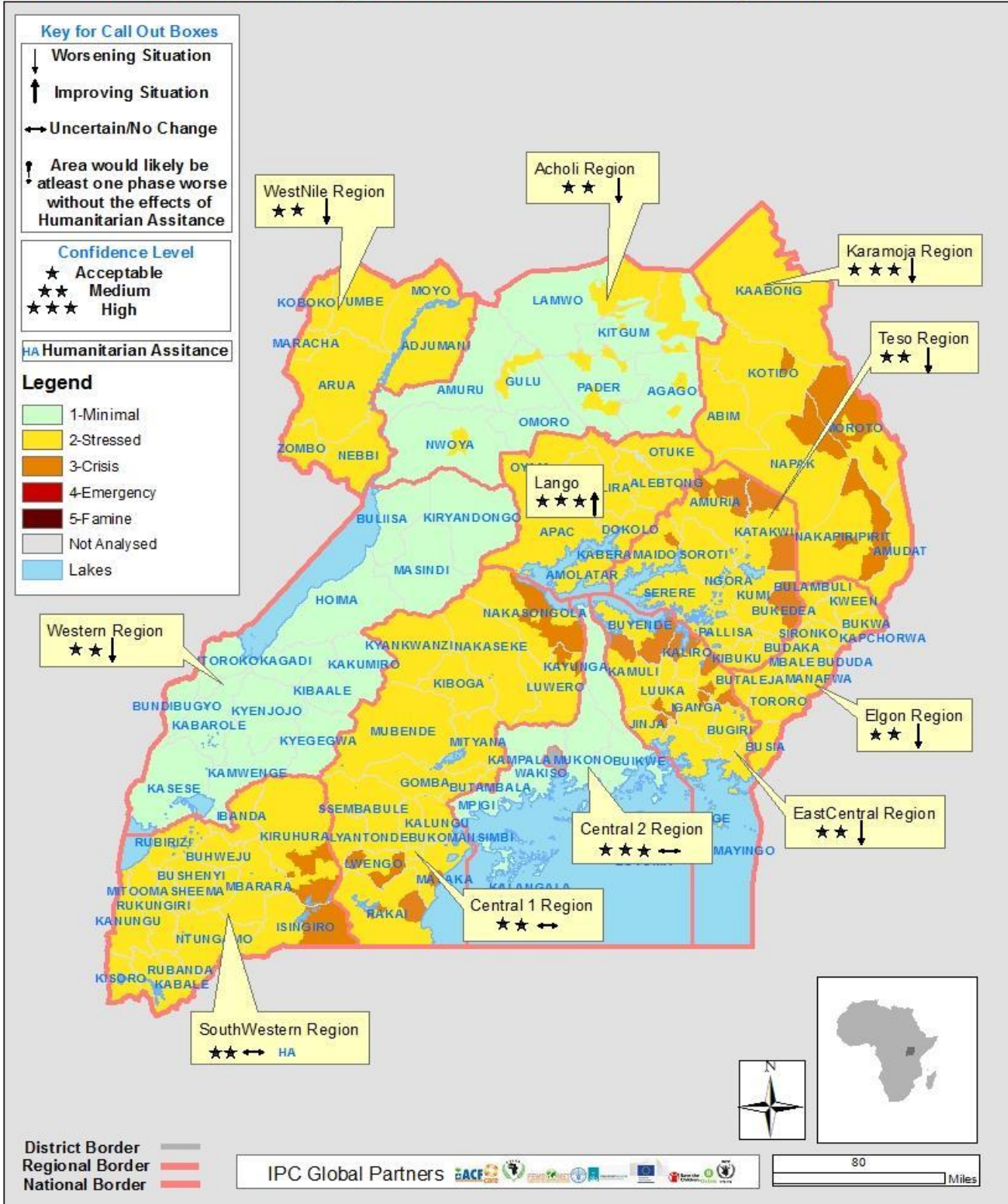
on markets for food. Increasing demand from external markets has induced food price increases, making it difficult for poor households to access food from the market. Deteriorating water and pasture conditions mainly in the cattle corridor have resulted in migrations of livestock keepers, reduction in livestock production and increased spread of livestock diseases. Livestock keepers have been reported to migrate from Karamoja to Lango, Acholi, Teso and Elgon competing for pasture and water. The over whelming influx of refugees from South Sudan has increased demand for food and services in West Nile region.

**5% of the total population in the country is in Crisis (IPC Phase 3).** This population has widening food consumption gaps with deteriorating dietary diversity and high malnutrition rates. They are found in Central 1 (0.58 million), Karamoja (0.12 million), Teso (0.2 million), East Central (0.38 million) and South Western (0.31 million) regions. The affected population includes the poorest households with poor food consumption score, low meal frequencies of up to 1 meal a day and low dietary diversity of less than 3 food groups. They have poor purchasing power as their incomes are low and no food stocks at household level. They are mainly coping through food assistance, remittances from relatives, begging, stealing food, wild food gathering and irreversible sale of productive assets to buy food. This population currently needs assistance to bridge the widening food consumption gaps and avert the worsening malnutrition.

**Figure 1: IPC Map for Uganda (January-March, 2017)**

# Acute Food Insecurity Situation Overview in Uganda

Valid From: January 2017  
To: March 2017



**Table 2: Population Table for Acute Food Insecurity - January to March 2017**

Statistical / IPC Region	Population (UBOS projections 2016)	Phase 1		Phase 2		Phase 3	
		% of pop'n	No.	% of pop'n	No.	% of pop'n	No.
Acholi	1,580,300	88	1,390,664	12	189,636	0	0
Central 1	4,486,300	65	2,916,095	22	986,986	13	583,219
Central 2	4,052,300	94	3,809,162	6	243,138	0	0
East Central	3,767,400	40	1,506,960	50	1,883,700	10	376,740
Elgon	3,850,700	75	2,888,025	25	962,675	0	0
Karamoja	1,025,800	58	594,964	30	307,740	12	123,096
Lango	2,174,600	80	1,739,680	20	434,920	0	0
South Western	4,421,700	65	2,874,105	28	1,238,076	7	309,519
Teso	1,936,100	33	638,913	57	1,103,577	10	193,610
Western	4,926,500	82	4,039,730	18	886,770	0	0
West Nile	2,814,000	63	1,772,820	37	1,041,180	0	0
<b>Uganda (less: Kampala)</b>	<b>35,035,700</b>	<b>69</b>	<b>24,171,118</b>	<b>26</b>	<b>9,278,398</b>	<b>5</b>	<b>1,586,184</b>

**Table 3: Comparison of 2015, 2016 and 2017 phase classifications**

% of national population in each phase			
Food Security phase	Nov.2015 - Apr. 2016	July 2016 – Nov. 2016	Jan. 2017 - May 2017
<b>Phase 1</b>	<b>89</b>	<b>83</b>	<b>69</b>
<b>Phase 2</b>	<b>10</b>	<b>16</b>	<b>25</b>
<b>Phase 3</b>	<b>1</b>	<b>1</b>	<b>5</b>

## 1.7 Highlights of worst affected areas

### Teso

Food consumption: 67% consume 1 meal a day

Livelihood change: declining terms of trade of cereal to livestock; 50% asset stripping

GAM: Admissions at 4,000 from Oct-Dec, 2016

### Karamoja

Food consumption: 12.5% poor FCS, 50% consume 1 meal a day

Livelihood change: declining terms of trade of cereal to livestock; 9% Asset stripping

GAM: 12%, Admissions at 10,500 from Oct-Dec, 2016

### Central 1

Food consumption: 35% consume 1 meal a day

Livelihood change: 13% employing crisis strategies

GAM: Admissions at 4,000 from Oct-Dec, 2016

### East Central

Food consumption: 10% consume 1 meal a day

Livelihood change: 15% employing crisis strategies

GAM: 7.2% GAM rates in Namutumba & Kaliro; admissions at 2,000 from Oct-Dec, 2016

### South Western

Food consumption: 3% poor FCS; 4% consume one meal a day

Livelihood change: 10% employing crisis strategies; 5% distress strategies

GAM: Admissions at 7,000 from Oct-Dec. 2016

## 1.8 Matrix of limiting factors

Region	Limiting factors to food security		
	Availability	Access	Utilization
Acholi			
Central 1			
Central 2			
E. Central			
Elgon			
Karamoja			
Lango			
South Western			
Teso			
Western			
W. Nile			

The factors constraining households from being food secure are:

**Food Availability:** Poor crop harvests and low food stocks at household level due to the effects of prolonged dry spells and crop and livestock diseases

**Food Access:** High food prices coupled with low household incomes are reducing purchasing power thus limiting access to food

**Food Utilization:** Poor food preparation practices, food preferences based on culture and poor hygiene practices are constraining physical and biological utilization of food

### Key

	Major limiting factor
	Minor limiting factor
	Not limiting factor

## CHAPTER TWO REGIONAL REPORTS

### 2.1 ACHOLI REGION

#### 2.1.1 Area description

Acholi sub region is located in the Northern part of Uganda comprising eight Districts of Agago, Amuru, Gulu, Omoro, Kitgum, Lamwo, Nwoya and Pader. It lies between Latitude 4<sup>0</sup>12''N and 1<sup>0</sup>29''S, and Longitude 29<sup>0</sup>34''E and 35<sup>0</sup>0''W, with temperatures ranging from 15<sup>0</sup>C to 32<sup>0</sup>C. The sub-region has a generally flat topography, with predominantly sandy loam soils. The current population of the Sub region stands at 1,580,300 people (UBOS, 2016). 85% of the population depend on agriculture as a source of livelihood with majority engaged in crop production followed by livestock rearing and other non-agricultural livelihood sources like; charcoal burning, wood fuel, brewing, quarry works, metal fabrication, hand crafts, boda boda ridding, sports betting, masonry, and wild gathering. The Sub region has a bi-modal rainfall pattern which ranges from March-June (1<sup>st</sup> season) and July to November (2<sup>nd</sup> season). The total average rainfall amount in the last 10 years for the first season was 542.44mm while for 2016 was only 435.2mm. Similarly, the total average rainfall amount in the last 10 years for the second season was 739.51mm while for 2016 was only 516.6mm.

#### 2.1.2 Hazards and Vulnerability

The very poor presence of veterinary technical staff in Acholi coupled with less than 90% vaccination coverage of the cattle against FMD and improper enforcement of quarantine have led to disease spread from Amuru and Gulu to neighbouring districts and South Sudan. African Swine Fever (ASF) being endemic in Acholi Sub region continues to prevail as there is no vaccine and pig movement and confinement is still a problem.

##### **i. Rainfall:**

The major hazard that affected the region was the dry spell and delayed rains experienced in July-August. This affected the planting, performance, productivity and consequently reduced yields of second season crops that included finger millet, Sorghum, maize, groundnuts, simsim, beans, cotton, tobacco, sunflower and soya bean. The poor crop conditions were observed in most parts of the region and worsened due to dry weather. Thus household stocks were reported to be low and were only expected to last for the next two months. The dry spell also affected availability of water and pasture for livestock.

##### **ii. Pest and Diseases**

Major crop pests included aphids, scales, and white fly while diseases included citrus canker, maize streak virus, cassava brown streak virus, banana bacteria wilt and bacteria blight.

There was outbreak of Foot and Mouth disease in Gulu and Amuru for cattle as well as African swine fever in Omoro which affected pigs. Other diseases included tick-borne diseases, trypanosomiasis, rabies, Newcastle disease.

The Nodding syndrome is still heavily affecting lives and livelihood especially supply of farm labour in Amida and Akwang sub counties in Kitgum district, and Odek Sub County in Omoro district.

### 2.1.3 Overall phase and justification

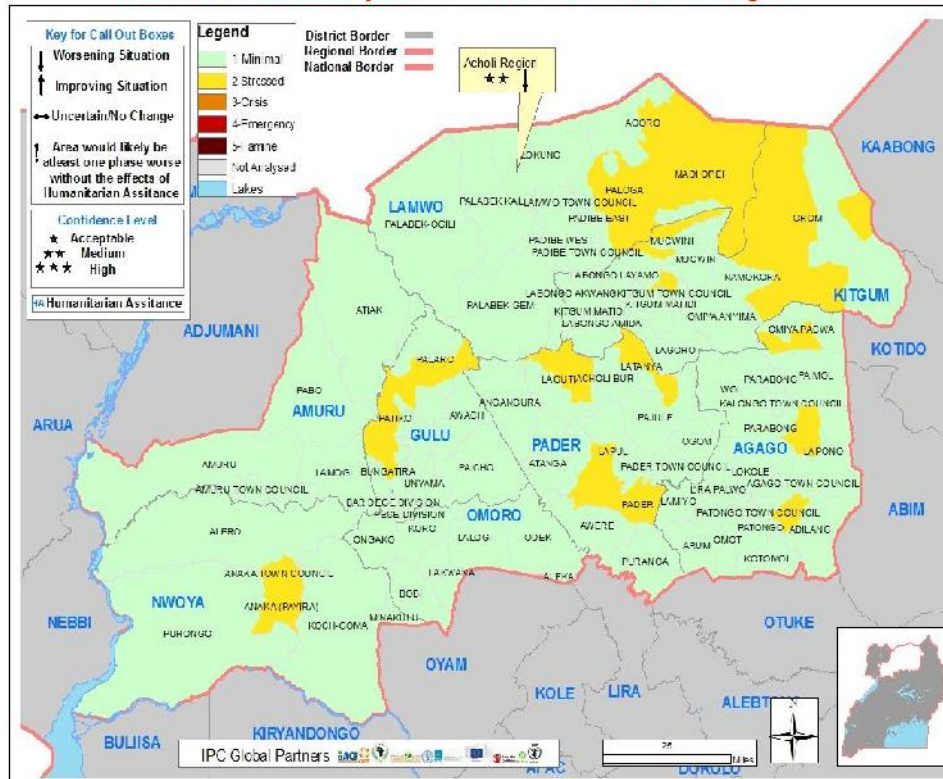
Phase	Current Situation [Confidence Level for Overall Analysis: 2 ]			Projected situation [Confidence Level for Overall Analysis: 2 ]		
	Estimated population	% of total population	Justification	Estimated population	% of total population	Justification
Phase 1	1,390,664	88%	<p>This population still has enough food stocks from own production yet those who don't have enough stocks can still afford to purchase from the markets. Their food consumption is under acceptable levels with recommendable dietary diversity. Their food stocks are expected to last for more than two months.</p> <p>However, due to adverse weather conditions, there has been reported deteriorating livestock body condition.</p>	1,311,649	83%	<p>Food availability is expected to decrease drastically within the next three months due to depletion of stocks and sales of available food stock to meet domestic needs</p>
Phase 2	189,636	12%	<p>This population is characterized by borderline food consumption as many of the households currently can afford between 1 and 2 meals a day. They have also resorted to reducing meal portion yet some are entirely depending on less preferred and less nutritious foods.</p> <p>Due to adverse weather effects and coupled with the fact that they depend on rain-fed agriculture, the food production levels in the previous season were very low.</p> <p>They are also faced with a problem of increasing livestock disease incidences which have caused death of livestock; particularly in Patiko sub-county (Gulu district); Lukung &amp; Agoro sub-counties (Lamwo district); and in Amuru district.</p> <p>The nodding syndrome is also still heavily affecting lives and livelihood in Kitgum and Omoro districts.</p>	268,651	17%	<p>The condition of the population under this category is expected to worsen because of depleted food stock and high market prices for food items</p>



**Figure 2: IPC map for Acholi region (January-March, 2017)**

**Acute Food Insecurity Situation Overview in Acholi Region**

Valid From: January 2017  
To: June 2017



**2.1.4 Hotspots**

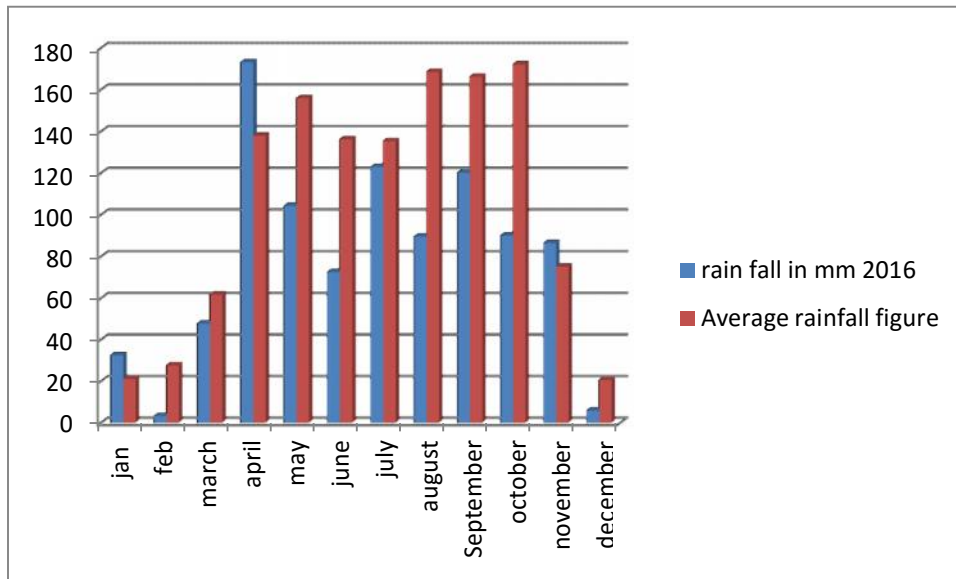
District	Sub county	Parish
Kitgum	Orom	Akurumo, Lulwa, Kiteny
	Namokora	Pugoda East, Pugoda West and Kalabong
	Mucwini	Pubec, Okol and Akara
Nwoya	Anaka Town Council	Akago, Ogom, Labyei and Ieke
	Got Apwoyo	Bar, Lyec, Tegot and Pamin Olango
	Lii	Langele, Lutur
Gulu	Patiko	Pawel, Pugwinyo
	Bungatira	Atiyabar
	Palaro	Labworomor
Pader	Lapul	Koyo
	Laguti	Lapyem
	Pader Kilak	Tyer
Agago	Lapono	Amyel, Kakat
	Omiapacua	Lamio, Layika
	Adilang	Nge Kidi, Lapyem
Lamwo	Agoro	Lupulungi, Pubar, Rudi
	Madi Opei	Lawiye, Oduny, Pambura, Kal
	Paloga	Paloga, Bungu and Pawaca

### 2.1.5 Food Availability

#### i. Rainfall performance

There was a drastic decline in amount of rainfall received in 2016 compared with the long term average (ten years). Notably, during the months of August to October, there was low rainfall which affected second season planting and growth of crops, and also availability of water and pasture for livestock in some areas. The most affected crops were maize, beans, sunflower, sorghum, sesame, cotton and tobacco.

**Figure 3: 2016 rainfall performance in Acholi region**



#### ii. Crop and livestock production

Eighty-five percent (85%) of households in Acholi sub region depend on their own food production with limited purchasing from external sources. Overall, the total acreage and yields for major staple crops in the region decreased during the year 2016 compared to 2015 by nearly half leading to household food insecurity in the region due to the unpredictable weather conditions. The reduced household production and productivity due to the adverse weather effects, has also led to scarcity of food items in the market and drastic increase in market prizes for maize, beans, cassava and groundnuts.

Generally, food is available to the households except for some areas in Kitgum and Lamwo districts where the production was most affected by the prolonged dry spell. Most of the households still have adequate food stocks that are likely to last for the next 2 -3 months, except in Kitgum district where the stocks are expected to last for less than a month. It has been reported that a number of households are selling the available food to cater for other non-food expenditures which will likely affect food availability in the near future.

### 2.1.6 Food accessibility

Most of the household's access food through own production, with an increasing number accessing through market transactions. Currently there is increased demand of food from external markets (i.e. South Sudan, DRC & Kenya) which is leading not only to reduced supply but also unusual price increases. Most of the local population earn relatively low incomes and therefore increased prices of food gradually affect their purchasing power which will eventually affect access to food.

### 2.1.7 Food Utilization

Food utilization in the region is affected by poor health due to nodding syndrome, malaria, and diarrhea diseases. There is inadequate knowledge on appropriate food preparation methods. For instances there is widely practiced over chopping of green vegetables that promotes oxidation and loss of certain minerals, and over cooking of food resulting into denaturing of nutrient contents.

**Table 4: Water and sanitation in Acholi region**

	Amuru	Gulu	Nyowa	Lamwo	Pader	Agago	Kitgum	Average
Water access %	90	90	84	95	95	95	95	92
Functionality%	76	88	75	83	79	69	59	76
Safe water access%		21	13	14		21	25	19
% using 15 litres/ person/day		64	51					58
Latrine coverage %	73	74	75	44	51	67	59	63

Source: MOWE sector performance report 2016

The major water sources in the region are (boreholes, springs, protected wells, valley dams and rivers) and access to water is on average 90%. About half of the population (57.5%) are able to use 15 liters of water per person per day. The pit latrine coverage is at 63% and the hand washing practices are still poor, indicating poor sanitation access which has led to increasing water related diseases. Access to water is expected to decrease further in the next three months due to the long dry spell.

### 2.1.8 Stability

Stability of the food security situation is being affected by the increasing cross-border demand of food crops which has in turn affected price stability. The current high prices are tempting households to sell off the little food they have affecting their near-future food security situation.

### 2.1.9 Food consumption

Currently, it is estimated that about 12% of the population can only afford to have 1 meal a day, while 48% are estimated to be having 2 meals as the rest can still afford 3 or meals a day. The major food groups consumed in the region are cereals, pulses, tubers/roots and vegetables. Over 65% of the population are having good dietary diversity, consuming 4 or more food groups in a space of seven days.

### 2.1.10 Livelihood change

Agriculture is the major source of livelihood in the region contributing to over 80% of household income and food security. The level of household income is generally low since majority of people depend on subsistence farming, with the household per capita income being estimated at Ug. Shs. 200,000 per month.

Households that cannot afford enough food are currently coping through reducing the number of meals per day, reducing meal portion for adults yet others have resorted to consuming less preferred and less expensive foods. There is also an increasing population that begs for food to survive.

There is no significant change in livelihoods except for the prolonged dry spell that affected provision of agricultural casual labour.

### **2.1.11 Constraints to production in second season**

- i. Insufficient rain: the rain came late in August and the distribution was poor, inconsistent and the amount was insufficient for good crop production
- ii. Change in weather pattern/ dry spell
- iii. Limited access to improved seeds especially bean seeds, maize seeds and groundnut seeds.
- iv. Destruction from wild animals (elephants) especially in Got Apwoyo and Lii Sub-counties in Nwoya district and Orom Sub-county in Kitgum district. The major crops destroyed were rice, sorghum, sesame, millet
- v. Pests and diseases: crops affected included cassava, groundnuts, maize and beans. The major crop pests were; fruit flies, aphids, scales, white fly and diseases of crops were citrus canker, maize streak virus, The major livestock diseases were tickborne diseases, *trypanosomiasis*, rabies, African swine fever, Newcastle disease
- vi. Inadequate farm tools and equipment

### **2.1.12 Risk factors to monitor**

- i. Human diseases like malaria, meningitis and the Nodding syndrome (next 4 months)
- ii. Livestock diseases like Black quarter disease in cattle, FMD, Swine fever, CBPP (next 3 months)
- iii. Since the dry season is expected to continue, wild fires and wild animal invasion should be monitored for the next 2 months
- iv. Influx of pastoralists from Karamoja and livestock theft (next 3 months)
- v. The cassava brown streak and aphids (next 3 months)

### **2.1.13 Recommendations**

- i. Sensitization on danger of excessive sales of food items
- ii. Training of community on food and nutrition security
- iii. Training community on livelihood strategies
- iv. Training community on post harvest handling
- v. Government support in the affected communities with agricultural inputs (e.g. seeds, hoes)
- vi. Stakeholder meetings/trainings on disaster risk reduction
- vii. Strengthening early warning system

## **2.2 CENTRAL 1 REGION**

### **2.2.1 Area Description**

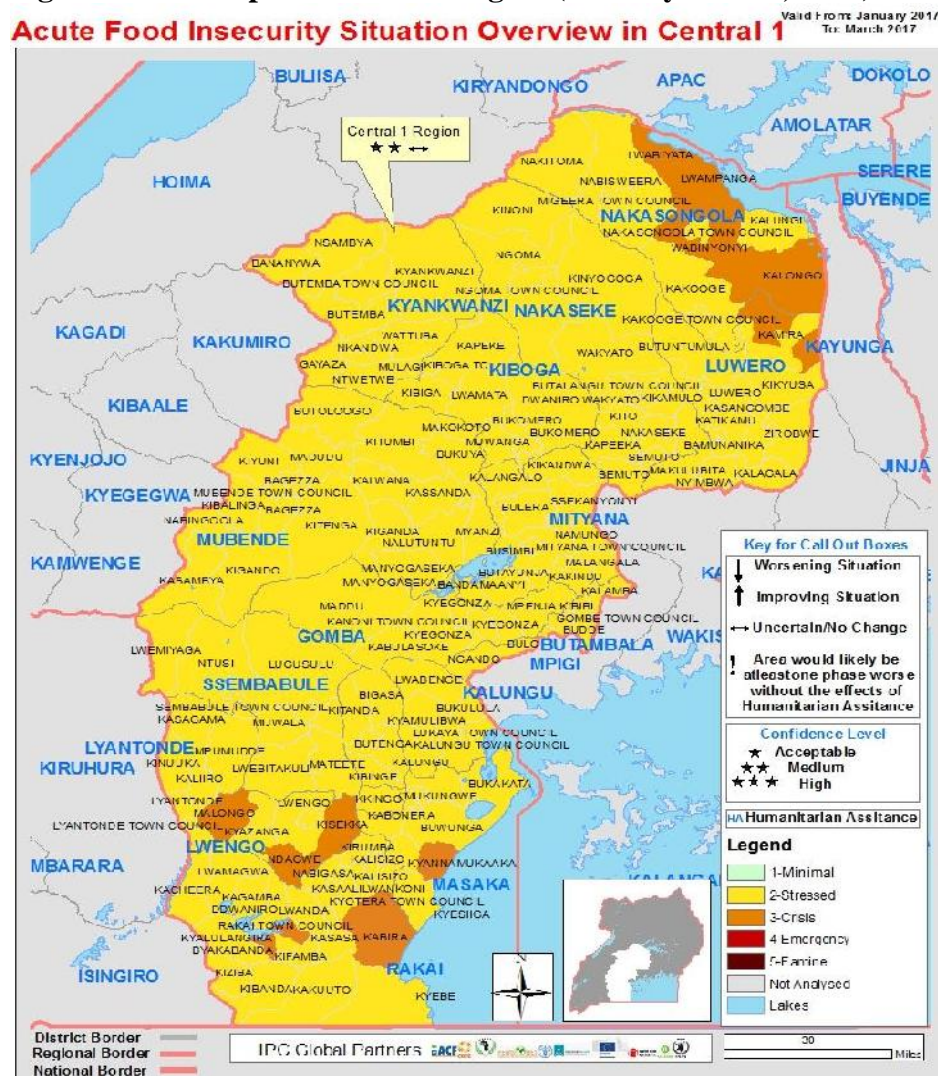
Central 1 region is composed of 17 districts bordered by Lake Victoria in the South and Lake Kyoga in the North East, with a current population of 4,486,300 people (UBOS, 2016). The region comprises of 5 different livelihood zones characterized by the growing of both cash and food crops. Agriculture serves as the basis for rural livelihoods in the region. Crop farming is estimated at 60%, livestock farming (20%) and fisheries (2%). Other economic activities include petty trade (10%), Charcoal burning, sand mining, brick making (1%), services (saloons, bodaboda 5%) and Artisans (1%). The major food crops are banana, maize, cassava, beans, sweet potato and rice. Since the poor cannot produce enough to meet most of their food requirements, they hire out labour for food and income.

The rainfall type is bimodal with varying amounts (i.e. 700 – 1,200mm/year) across the region. However, in the recent past, the region has experienced abnormally long dry spells which has had serious implications on water for production and human consumption. The transport system is generally good both on land and water. The average distance to a school is 3km on average. Generally, only one hospital is found in every 3 districts.

## 2.2.2 Overall Phase and justification

Phase	Current Situation [Confidence Level for Overall Analysis: 2 ]			Projected situation [Confidence Level for Overall Analysis:2]		
	Estimated population	% of total population	Justification	Estimated population	% of total population	Justification
Phase 1	2,916,095	65%	This population can afford to have 2 or more meals a day with a good dietary diversity of over 4 food groups. There has been no recent deterioration in the dietary diversity of this population. The composite food consumption score is 65.8 which is acceptable and is also currently not deteriorating.	2,826,369	63%	This population will cope by purchasing food from the market and will continue fulfilling their food requirements and maintain their dietary diversity
Phase 2	986,986	22%	This population can currently afford to have between 1 – 2 meals a day with deteriorating food consumption score. Those that cannot afford to have enough food are employing insurance coping strategies such as reducing number of meals, reducing portion sizes of meals, relying on less nutritious foods, etc.	1,345,890	30%	More of the population will be stressed as the next 3 months are not crop harvesting months as dry conditions are expected to continue; more people will have to increasingly rely on the markets. With the starting of the school term, demand for food is increasing and prices are expected to increase further as stocks get depleted before the first harvest comes in
Phase 3	583,219	13%	This population can currently afford to have 1 meal a day, but mostly of less nutritious foods. The meal quantities have greatly been reduced due to limited food availability and access. They are mainly coping through borrowing of food or getting food assistance from the family friends, government and some NGOs. Most of the households in this category have started selling off their productive assets.	807,534	7%	Some intervention is expected to ameliorate the situation thus reducing the proportion of affected population. The rain season is expected to start earlier and this will improve the situation thus reducing number of affected households in phase 3.

Figure 4: IPC map for Central 1 region (January-March, 2017)



### 2.2.3 Hot spots

District	Sub county	Parish
Nakasongola	Lwampanga	Kalongo
	Rwabiyata	Wabinyonyi
Luwero	Kamira	Katagwe, Mazzi, Kitenderi
Mubende	Kitenga	Kalyuma
Rakai	Rakai Town Council	Katuntu ward, Kibona ward
	Byakabanda	Byakabanda, Kamukalo, Kitaasa
	Kabira	Bwamijja, Kyanika, Ndolo, Njala, Bisanje
Masaka	Kyanamukaa	Buyaga, Zzimwe
Lwengo	Malongo	All
	Ndagwe	All
	Kisekka	All



#### **2.2.4 Hazards and Vulnerability**

**Rainfall:** The region suffered late onset of rains and prolonged dry spells with diverse changes in rainfall patterns, rainfall intensity and distribution across all districts. The most affected districts were Nakasongola, Nakeseke, Luwero, Rakai, Lyantonde, Sembabule and Gomba. There is noticeable indiscriminate tree cutting for fuel and search for more fertile land for farming which has greatly contributed to the adverse weather changes in the region.

**Human diseases:** The most common human diseases in this region are malaria, diarrhea, acute respiratory infections and HIV/AIDS which continue to affect human health.

**Crop pests and diseases:** Major crop pests in the region are fruit flies, tomato leaf miners, BCTB weevils and nematode vectors; whereas crop diseases include BBW, CWD, CBSD, CMVD and sigatoka.

**Livestock pests and diseases:** Major livestock diseases and parasites/vectors include ticks and ticks borne diseases (ECF, anaplasmosis, and heart-water) which are most prevalent in cattle and the cattle corridor districts. African swine fever in Pigs and Newcastle Disease in Poultry are also common diseases in the region.

#### **2.2.5 Food Availability**

With exception of Mubende, Kiboga and Kyankwanzi districts, the rest of the region experienced a decline in yields of staple foods with some areas experiencing total crop failure. The 2016 second season estimated yield is far below the 2015 second season harvest indicating unusually low food stocks available to the households. The districts of Nakaseke, Nakasongola, Gomba, Rakai, Kalungu, Sembabule, Lwengo and Lyantonde have had very poor yield for two consecutive years. The region is being fed by Mubende, Kyankwanzi and Bukomansimbi districts only. There is increasing scarcity of major foods in the markets which has led to hiking prices.

The little harvest from Mubende, Mityana, Kiboga and Kyankwanzi is also being sold to South Sudan, DRC and Kenya leading to food shortage in the region.

#### **2.2.6 Food Access**

Staple food prices have been increasing since October 2016 and as market supplies decline it is likely that this trend will continue in the near future. By November 2016, the retail price of maize flour had increased from Ug. Shs. 2 000 to Ug. Shs. 2 800 which is a 40 percent increase in one month. Although livestock body conditions are only slightly below average, prices have atypically declined in recent months, given the oversupply of livestock for sale.

The combinations of above average staple foods prices and lower than normal livestock prices is decreasing household purchasing capacity. It is estimated that about 50% of household income is spent on purchase of food stuffs yet for Nakasongola district the expenditure is over 60%. The balance is spent on other non-food household requirements.

#### **2.2.7 Food utilization**

Utilization of food for most households is generally acceptable due to rich diet, good food preparation practices, moderate water coverage and good access to hygienic sanitation facilities. Households in the region generally steam their food which practice helps maintain the nutrition value of food. Currently households are seemingly travelling long distances to clean water sources, and the price of water in Luweero and Nakasongola districts has drastically increased.

The main water sources are piped water, valley tanks and dams, boreholes, wells, wetlands, lakes, rivers. Access to safe water in the region is generally estimated at 62%, though in Mubende, Kyankwanzi, Sembabule, Rakai and Lyantonde districts, it is estimated at 50% or below. This has serious implications on water for production and food utilization in the cattle corridor districts. The average distance to a water source is 3km.

On average, latrine coverage in the region is estimated at 77% which is above the national average.

### **2.2.8 Stability**

There was late onset of rains by about 2 months (shifting from the usual August to October) and early cessation (rains started in October and ended in early November). This shift in the rainfall pattern affected planting and production.

Households food stocks generally remain stressed due to high food demand compared to the declining supply. Increasing food prices combined with reducing household incomes are a threat to access to food through the markets.

There is declining availability of water and pasture for livestock production.

The increasing rural-urban migration as youths search for less risky but also less sustainable livelihood strategies threatens the agriculture sector as there is declining labour availability.

### **2.2.9 Food consumption**

Maize and beans are the most consumed food stuffs whereas milk consumption is average in the region. There is a significant reduction in banana consumption in the region as much of it is sold to neighboring in-country markets and also exported to outside countries. Vegetable consumption is significantly high in Bukomansimbi, Lwengo and Kalungu districts.

There is adequate dietary diversity in feeding regimes within the region. Dietary compositions mainly includes beans, meat, milk, vegetables, cereals and legumes, tubers and fruits such as bananas, mangoes, and jack fruits. Other food stuffs not scored in the region include fish, groundnuts and rice as their consumption is relatively low or in just a few areas.

Majority (65%) of the population currently can afford 2 or more meals a day with the rest (35%) only being able to have a meal or less a day. About 13% of the population currently survive on borrowing and begging for food from family friends, government and some NGOs. Some physically able household members are employing the food for work strategy for survival.

### **2.2.10 Livelihood change and coping**

Farming is the main activity in the region. Crop farming is estimated at 60%, livestock farming (20%) and fisheries (2%). Other economic activities include petty trade (10%), Charcoal burning, sand mining, brick making (1%), services (saloons, bodaboda 5%) and Artisans (1%). There has been a recent shift from production of traditional staple food crops to high value quick maturing crops like tomatoes, ginger, melons, fresh vegetables, opium, carrots, pepper and fruits.

There is increased sale of livestock at much reduced prices due to increasing water and pasture scarcity

The greater part of the population (71.4%) of are currently employing insurance food coping strategies such as reduced number of meals, reduced portion size, reliance on less preferred foods, etc. while some 12.8% employ crisis coping strategies like borrowing food, migration, relying on food assistance, etc.



### **2.2.11 Production constraints**

- i. Invasive pasture weeds like tick berry (*Latana camara*), thorn apples, sodom apple, acacia spp, which has reduced available pasture. Some poisonous weeds like *Phytolacca dodecandra* (olwooko), thorn apple (*Datura stramonium* - amaduudu) cause animal deaths when accidentally eaten and affect milk production and quality.
- ii. Inadequate improved pasture seeds, poor pasture management practices and livestock management practices like communal grazing and semi intensive all hinder improved pasture establishment in the region.
- iii. Inadequate water for livestock is still a big challenge in the region especially during dry seasons despite the government's efforts and support to lower local governments to construct watering points (valley dams and tanks) through programs like Luweero – Rwenzori, water grants and equipment to aid in construction works. Soil structure/texture, poor water holding capacity in some areas and inadequate rainfall do not allow collection of runoff for future use during periods of water scarcity.
- iv. Counterfeit (fake) agro-inputs and misuse of agrochemicals (drugs, vaccines, herbicides, pesticides, acaricides, basal and foliar fertilizers) are all on increase in the region. This is mainly attributed to poor or lack of regulation on agro-input importers, distributors and stockists which has resulted into pests, parasites /ticks resistance to agro-chemicals and losses to farmers.
- v. The region is further constrained by scarcity of improved livestock breeds, inadequate extension services (Veterinary and agriculture) to farmers due to inadequate facilitation, inadequate cold chains and disease control infrastructures, parasites, pests and diseases, climate change related risks (drought, high temperatures, hailstorms, windstorms, flooding). Declining soil fertility, rain-fed agriculture, inadequate water for production, lack of small scale and affordable irrigation equipment, inadequate value addition infrastructures and poor post-harvest handling techniques are noted to impact negatively the food quality and quantity in the region.

### **2.2.12 Risk factors to monitor**

- i. The nature, coverage and severity of the dry spell should be monitored across the region for the next 4 months
- ii. Emerging crop and livestock pests and diseases like BBW, CWD, FMD, etc (next 3 months)
- iii. Household food stocks for the most affected districts like Rakai, Lyantonde, Gomba, Nakaseke and Nakasongola; and also market prices across the region need to be monitored for the next 4 months
- iv. Bush/wild fires can be monitored as the dry spell intensifies
- v. Water availability, access and utilization for both human and livestock should be monitored for the next 2 months

### **2.2.13 Recommendations**

#### **Short term recommendations**

- i. Food relief / assistance
- ii. Provision of water bowsers to help collect water for consumption and production for communities
- iii. Identification and registration of all affected households by relevant authorities
- iv. Sensitization of communities on management of limited food stocks (defer sales, post-harvest handling, and good livestock management practices (stocking rates, pest and disease control), water harvesting and storage.

## **Medium term recommendations**

- i. Government needs to promote appropriate low cost water harvesting and irrigation technologies
- ii. Promotion of climate smart agriculture
- iii. Timely supply of planting and stocking materials particularly early maturing and drought tolerant varieties and breeds. More focus should be on food crops.
- iv. Local governments to enact and enforce food security bi-laws and ordinances
- v. Promote and support development of early warning systems by utilizing indigenous technical knowledge.
- vi. Government needs to fully support provision of extension services (staffing, facilitation, training and logistics)

## **2.3 CENTRAL 2 REGION**

### **2.3.1 Area description**

Central 2 region is made up of the districts of Mpigi, Buvuma, Buikwe, Kayunga, Mukono and Wakiso with a current population of 4,052,300. Most of the districts lie along the shores of Lake Victoria with bimodal type of rainfall & tropical climate with temperatures of 20-30<sup>0</sup>C and average altitude of 1,100 – 1,400 metres above sea level. With the exception of Buvuma district the topography is of undulating hills with flat tops. The vegetation is mainly bush and shrubs with a few forested areas. The soil types are mainly clay loams with murrum soils on the hill tops.

Agriculture serves as the basis for rural livelihoods in the region and households rely on crops, livestock and fisheries to meet their food and income needs. The major food crops are: banana, maize, cassava, beans, sweet potato and rice. Cash income comes from coffee, banana, maize, pineapple, tea, sugarcane, charcoal, fish and livestock products, small to medium industries and petty trading.

Prolonged dry spells, crop pests and diseases and other hazards like hailstorms mainly affect production in the region. The main crop diseases are Banana Bacterial Wilt (BBW), Cassava Brown Streak Disease and Coffee Wilt disease among others. Crop losses, resulting from these hazards affect households' ability to produce food and earn adequate amounts of cash to purchase essential food and non-food items.

### **2.3.2 Hazards and vulnerability**

Prolonged dry spells have favored resurgence of crop pests and diseases like BBW, CBSD, Coffee Wilt Disease, coffee twig borer, and black sigatoka.

Common livestock diseases included Foot and Mouth Disease (FMD), Newcastle Disease (NCD) and African swine fever.

### **2.3.3 Food Availability**

More than 80% of the households cultivate crops on less than 2 acres of land. These are small holder farmers who are generally susceptible to any kind of shock that arise since they depend on rainfall as the major source of water for agriculture. Most of the households in the region grow maize, beans, cassava, matooke and sweet potatoes. Due to the prolonged dry spell coupled with pests and diseases, the yield for beans, maize and matooke was below normal last season. However, currently households still have some stock from the previous harvest that is expected to take them through the next 3 months, except in Buikwe district where stocks are minimal.

Milk quantities have decreased over the last 6 months by almost 50% which has affected household consumption and income. Furthermore, the decrease in the quantities has led to an increase in milk prices.

The total monthly catch for Nile perch and Tilapia reduced by approximately 48% and 77% respectively in the last 6 months. The decline was attributed to the long dry spells which caused the water levels to recede consequently leading to low monthly catches.

### 2.3.4 Overall phase and justification

Phase	Current Situation [Confidence Level for Overall Analysis: 3 ]			Projected situation [Confidence Level for Overall Analysis: 2]		
	Estimated population	% of total population	Justification	Estimated population	% of total population	Justification
Phase 1	3,809,162	94%	This population currently has access to all the available food, which they are consuming in adequate quantities and at the same time ensuring good dietary diversity. The population is not faced with any major nutrition problems, with the current SAM rates being within the acceptable threshold	3,809,162	94%	Current food stocks in the communities and on the market are enough to take them through the next three months. The situation is expected to remain stable thus population in phase 1 is expected to remain the same.
Phase 2	243,138	6%	This population is faced with reduced food availability leading to reduction in the amount of food consumed. It comprises of mainly low income households who are finding it a bit hard to access market food due to high prices. However, this population still has access to nutritious foods like mukene, fruits, etc and they can adequately employ only insurance strategies in case of deficit.	243,138	6%	Population is expected to remain the same



All the access roads to the markets are murrum and mostly in good condition.

### **2.3.7 Food utilization**

The food preparation practices in the region are generally poor and a number of households still prepare vegetables with cooking oil thus depleting the nutrient content.

The main water sources in the region are boreholes (54%), ponds (32%) and then tap water (5.3%). Currently, 62% of the households have access to safe drinking water and 42% of the population are able to use 15 liters of safe water per person per day which is an improvement from 6 months ago. The average distance of the households to the nearest safe water source is about 1.5 km, except for households that are privately connected to piped water. In the urban centers, a 20 litre jerrican of water usually costs Ug. Shs. 500 which is a relatively high price.

Most of the households (72.4%) can access and use improved pit latrine facilities which is a slight improvement from the 70.2% 6 months ago.

### **2.3.8 Stability**

Due to the unpredictable shifts in the rain seasons the cropping calendar has been distorted. Farmers can no longer follow an established routine in crop production.

Food production levels show a declining trend with low crop yields and decreased livestock products as well as fish production.

### **2.3.9 Food consumption**

Major staples grown in the region are consumed at least 6 times a week with cassava as the most consumed. Currently, about 25% of the households can afford to have 1 meal a day, 55% of can have two meals a day, while 20% of the households can afford to have 3 or more meals daily.

The food groups consumed have not changed, however there is rationing to reduce on the amount consumed since there is increase in food prices.

More than 50% of pulses, cereals, bananas and sweet potatoes grown are consumed by households and the rest is sold in the market. Only 23% of maize grown is sold in the market and the rest is used for home consumption (35% is milled) as food and animal feed (21%).

### **2.3.10 Livelihood change**

Agriculture serves as the basis for rural livelihoods in the region as households rely on crops, livestock and fisheries to meet their food and income needs. Since the poor cannot produce enough to meet most of their food requirements, they hire out labour for food and income. The major food crops are: banana, maize, cassava, beans, sweet potato and rice.

As there have recently been no major shocks / hazards, there is no major livelihood change in the region that is due to food consumption deficits.

### **2.3.11 Nutrition status**

Severe Acute malnutrition is at 0.1 %; Mild acute malnutrition 0.08 %; Global Acute malnutrition is 0.18%. Nutritional status in the region is stable and there is no evidence to expect change within the next three months.

### **2.3.12 Risk factors to monitor**

- i. Wild fires during the period of January to March 2017
- ii. Crop destruction by trespassing livestock – during the period of January to March 2017
- iii. Pests and disease outbreaks for crops, livestock and animals – throughout the projection period
- iv. Prices for both crops and livestock products

### **2.3.13 Recommendations**

- i. Promotion of water harvesting and irrigation technologies that are affordable by small scale farmers; this is critical in Galiriaya and Bbale subcounties in Kayunga district and Nkozi and Kituntu subcounties in Mpigi district.
- ii. Provision of planting material and quick maturing and drought tolerant crops

## **2.4 EAST CENTRAL REGION**

### **2.4.1 Area description**

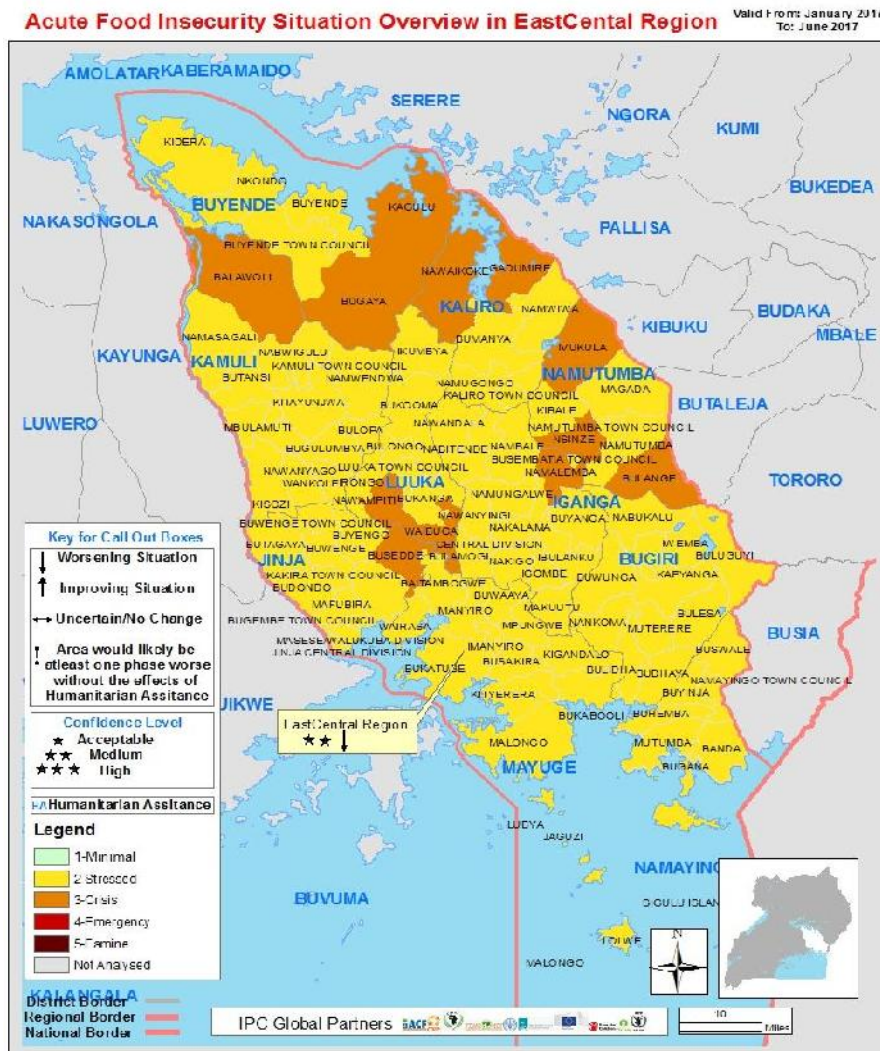
The region is made up of the districts of Bugiri, Iganga, Jinja, Kamuli, Luuka, Namutumba, Buyende, Kaliro, Namayingo and Mayuge with a current population of 3,767,400 (UBOS, 2016). It is situated immediately north of the equator, bordered by Lake Kyoga to the north, the Victoria Nile to the west, the Mpologoma River to the east, and Lake Victoria to the south. It has an area of 8,920 square kilometres. The climate and vegetation of the southern zone (Jinja, Mayuge, Bugiri, Namayingo, Luuka and Iganga) are influenced by Lake Victoria, where the average rainfall ranges from 1000 mm to 1520 mm a year. This heavy rainfall produces a luxuriant growth of vegetation. The northern zone (Buyende, Kamuli, Kaliro and Namutumba) is flat as the land drops to Lake Kyoga. The natural vegetation is mainly savannah interspersed with deciduous trees. The region is strategically linked by key roads to markets; the road network comprises of two major tarmac roads and a number of first class murrum roads and various feeder or community roads linking to the various market centres within the region and other market outlets like fish landing sites.

Agriculture in the region is predominantly subsistence, with an average household land holding of about 2.5 acres. Although markets are accessible, most households do not have enough money to purchase food as over one quarter are below the extreme national poverty line and three quarters are below moderate national poverty line.

## 2.4.2 Overall Phase and Justification

Phase	Current Situation [Confidence Level for Overall Analysis: 2 ]			Projected situation [Confidence Level for Overall Analysis: ]		
	Estimated population	% of total population	Justification	Estimated population	% of total population	Justification
Phase 1	1,506,960	40%	This population is currently able to afford 2 or more meals a day with a good dietary diversity that has not recently deteriorated. They are mostly not employing any food coping strategies as they still have enough stocks from the recent harvest and those without stocks at home are able to buy from the market.	1,431,612	38%	Dry conditions are expected to continue. The next three months are not harvesting months therefore households will increasingly rely on markets for food. However, prices of food are high which will limit access.
Phase 2	1,883,700	50%	This population is currently able to afford 1 – 2 meals a day with a dietary diversity of about 4 food groups. Their food stocks are low owing to the low harvest of last season but they can still afford to purchase some food from the markets. As their incomes are relatively low, their purchasing power is greatly reducing which threatens their future food security situation. Those without enough food are currently coping through insurance strategies.	1,959,048	52%	Poor households in Busoga are likely to remain Stressed
Phase 3	376,740	10%	This population is currently able to afford 1 meal a day. Their food stocks are entirely depleted yet they are too poor to purchase food from the markets which is causing huge consumption gaps. They are mostly surviving through employing of crisis food coping strategies that include irreversible sale of productive assets like land, migration of some family members to other homes of relatives and friends, going a whole day without a meal, and others.	376,740	10%	This population will remain in crisis unless some food assistance is provided in the next 3 months.

**Figure 6: IPC map for East Central region (January-March, 2017)**



**2.4.3 Hotspots (all parishes in identified subcounties)**

District	Sub county	District	Sub county
<b>Kamuli</b>	Balawoli	<b>Jinja</b>	Busedde
	Namasagali		Mafubira
<b>Kaliro</b>	Nansololo		Busede
	Nawaikoke	<b>Namutumba</b>	Bulange
	Gadumire		Nsinze
<b>Luuka</b>	Nuampiti	<b>Iganga</b>	Ivukula
	Waibuga		Namalemba
	Bukanga		Nakalama
<b>Buyende</b>	Bugaya		Buyanga
	Kagulu		
	Buyende		



#### **2.4.4 Hazards and vulnerability**

Within the last six months, the hazards faced by the population have remained as in the previous year, but with erratic rainfall with thunderstorms, prolonged dry spells, high temperatures and crop and animal diseases negatively affecting food production and productivity in the region.

**Rainfall:** The region received erratic rainfall that started late affecting the planting and production of crops. In most districts it only rained during the month of October making it hard for households to plant, yet for those that were able to plant, crops failed as there were no rains to support the growth.

**Temperature:** The region recorded unusually high temperatures greatly reducing soil moisture which made it hard for the crops to grow, and in some cases leading to total failure of crops.

**Striga weed:** There was high striga infestation and as most food items grown in the region comprise of cereals, this greatly affected production and productivity of cereal crops.

**Disease:** High incidences and deaths due to Acute Watery Diarrhoea (AWD), Malaria, Acute Respiratory Infection (ARI), Typhoid, Meningitis and Urinary Tract Infections (UTIs) and these affect both food consumption/intake and utilisation of nutrients by the body.

**Poverty:** Over 25% of the population in East Central region lives below the poverty line and are therefore unable to access food outside own production.

#### **2.4.5 Food availability**

##### **i. Rainfall performance and crop production**

The second rains were expected to begin in August and September 2016, but only came in October and therefore delayed planting for the second season. Acreage planted was low with crop failure reported for beans, cassava and groundnuts. In the region there was no food item that was abundant except sweet potatoes and cassava which were moderately available. The main source of food items was mainly from the market.

##### **ii. Livestock Performance**

Performance for cattle was observed to be worse than normal due to the prolonged dry spell which reduced the amount of water for drinking and pasture growth. Most water sources have dried up save for major water bodies like the Nile and Kiko River. Sheep and goats body condition is normal as they have shrubs to feed on. The crop failure has led to scarcity of feeds thus affecting poultry performance and production.

There has been a marked drop in milk production as a result of reduced pastures and water due to the prolonged dry spell.

There has been generally no unusual movement of livestock into the region, except for a few cases of movement out of the region, say from Buyende to Serere and Kaberamaido in search of pastures. There were generally no serious livestock disease outbreaks in the region save for a few cases of NCD outbreak in Jinja, Heart water, Trypanosomiasis in Buyende and Kamuli district. Within the region, the livestock drugs are generally available in the major towns and trading centres, though their quality is sometimes not guaranteed. Despite the deteriorating general conditions of pastures and water for production, the prices of livestock and livestock products have remained relatively stable. The situation is however likely to change in the future as the farmers will be selling livestock to buy food and pay school fees.

### iii. **Fish production**

The region is endowed with natural water bodies like Lake Victoria, River Nile, River Mpologoma, Lake Nakuwa and a multitude of wetlands that provide a wide range of capture fisheries resources. In addition, fish farming is being practiced both in fish ponds and in cages on Lake Victoria and River Nile.

### iv. **Food stocks**

Reduced crop yields coupled with poor livestock performance reduced quantity and quality of food available to the households. The general food situation for storable food items is worrying with minimal stocks expected to last for not more than 30 days. The stocks on average for households are majorly made up of maize and beans.

### **2.4.6 Food Access**

Food prices in the region have been relatively high due to the general decrease in food supply as a result of the crop failure last season. This situation caused farmers to sell off their stocks yet the production was low. Currently most of the food items are relatively scarce. Household accessibility to food was thereby reduced. High poverty rate (estimated at 25%), limited food supplies, increased food prices, declining household level food stocks, and asset stripping to obtain financial resources to access food are issues that the population indicate are restricting their access to adequate food.

The key areas of expenditure by the rural households include food, medical care and school fees. In a normal situation, an average household spends close to 20% on food, 30% on medical care and about 50% of their income on paying school fees. Due to the prevailing food shortage at the moment, the trend has however changed in almost all households. Expenditure on food / food items has shifted to close to 60% due to general crop failure over the recent seasons.

### **2.4.7 Food utilization**

Access to safe water within the region is fair with the best performing districts (Luuka and Jinja) at 77% and the lowest being Buyende district at 39% access to safe water. Average safe water access in the region stands at 62.7% as compared to a national average of 67%. Hand washing practices are at 7% for those using both soap and water. Water source functionality stands at 90% compared to a national average of 86%.

### **2.4.8 Stability**

Food availability, accessibility and utilization in the region are unstable due to drought and high poverty rates.

### **2.4.9 Food Consumption**

The food consumption score is 48 which is considered acceptable. Normally households in the region consume 11 food groups (excluding eggs). However, currently well-off households are consuming 10 food groups after losing 1 food group which is vegetables. It is also observed that the quantities consumed within the remaining 10 food groups are decreasing and are expected to continue decreasing due to the continuing dry spell. 45% can afford 3 or meals a day; 30% can afford two meals and 25% are only able to have 1 meal or less a day.

### **2.4.10 Livelihood change**

About 45% of the population are not employing any coping strategy and are therefore classified as food secure; 35% are employing insurance strategies (reduced food intake, reduction in number of meals, etc) to cope with food shortage. About 20% of the population are employing crisis strategies to avert the current food shortage. These include irreversible sale of productive assets like land, migration of some family members to other homes of relatives and friends, going a whole day without a meal, and others.

### **2.4.11 Nutrition**

Global Acute Malnutrition is at 7.2% which is below the 10 percent threshold. The highest rates are registered in Namutumba and Kaliro and are attributed to poor feeding practices and frequent illness.

### **2.4.12 Constraints to production**

- i. Drought and unreliable rainfall pattern
- ii. Crop / livestock pests and diseases like the evasive striga weed
- iii. Declining soil fertility
- iv. Low quality seed – the majority of farmers plant locally available and un-selected seed while others buy fake planting materials from agro-input dealers.
- v. Inadequate pastures and water for production
- vi. Poor animal husbandry practices and agronomical practices
- vii. Land shortage is impairing commercial agriculture; on average household land holding is 2.5 acres in Busoga region and most of the land has been hired out for sugar cane production.

### **2.4.13 Risk factors to monitor**

- i. Animal Diseases especially Foot and Mouth Disease (FMD), Swine Fever; and Trypanosomiasis (3 months)
- ii. Increased food prices due to reduced food stocks and external demand (3 months)
- iii. Crop pests and diseases (3 months)
- iv. Fake agricultural inputs (planting materials, agro-chemicals) -3 months

### **2.4.14 Recommendations**

- i. Facilitate access to drought resilient and early maturing crops
- ii. Promote irrigation and rainwater harvesting for domestic harvesting.
- iii. Support extension services for crop production and post-harvest handling
- iv. Support agrochemical input delivery

## **2.5 ELGON REGION**

### **2.5.1 Area description**

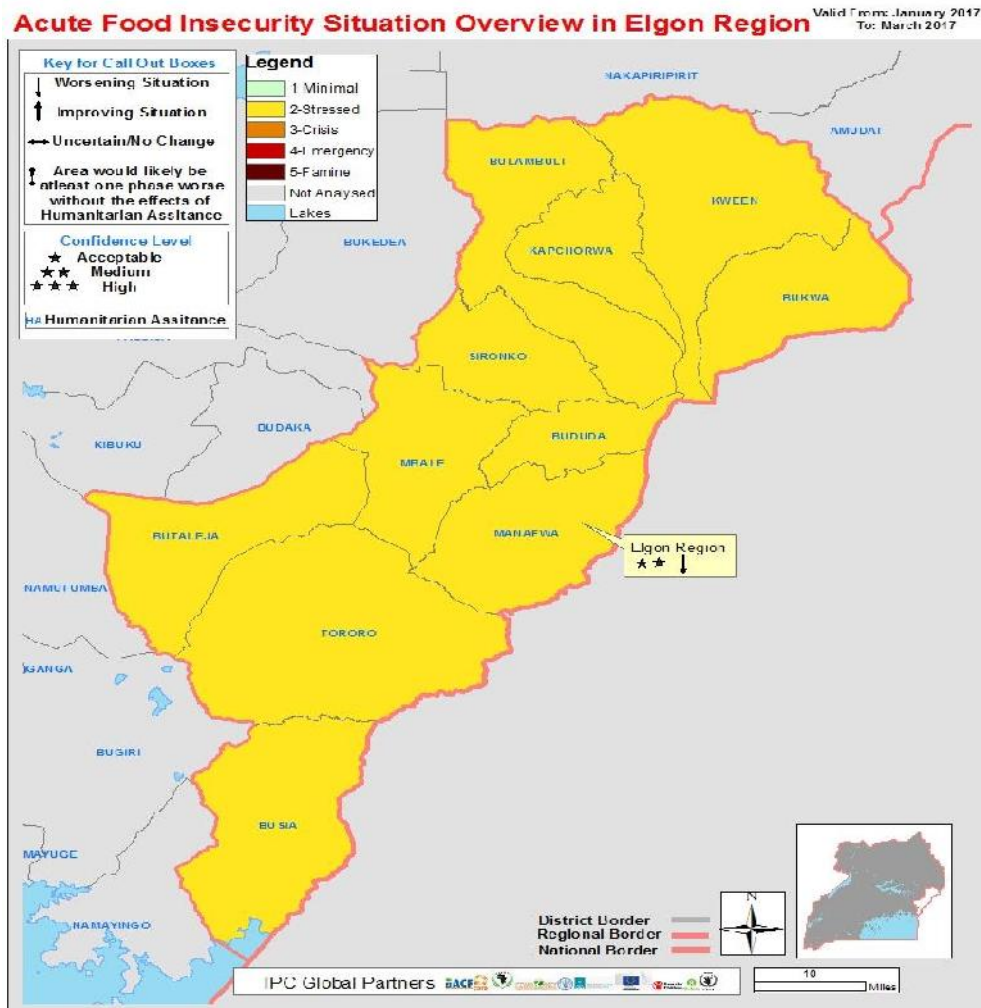
The region comprises of Mbale, Sironko, Manafwa, Bududa, Kapchorwa, Bukwo, Tororo, Butaleja, Busia, Bulambuli, Kween, Pallisa, Budaka and Kibuku districts; with a total population of 3,850,700 people. The region is mainly mountainous in the highlands and with some low lying areas towards the western and south western parts. It generally receives relief rainfall amounting to about 1380 mm per annum and normally experiences a bi-modal rainfall pattern with two cropping seasons. Majority of the households practice mixed farming which is largely subsistence and animal traction is a major means of opening land. Crops grown include the traditional cash crops like coffee and cotton whereas food crops include bananas, maize, sweet potatoes, cassava, millet, irish potatoes, beans and vegetables. The major livestock kept include cattle, poultry, goats, and pigs. Other income generating activities include provision of agricultural labour, petty trade, cross border trade and salaried employment.

Market access in the region is fairly adequate due to main trunk roads joining a number of major towns in the region. The districts in the region are interconnected by a number of murrum road networks of which the majority are seasonal.

## 2.5.2 Overall phase and justification

Phase	Current Situation [Confidence Level for Overall Analysis: 2 ]			Projected situation [Confidence Level for Overall Analysis: ]		
	Estimated population	% of total population	Justification	Estimated population	% of total population	Justification
Phase 1	2,888,025	75%	Over 70% of the population in the region has good food consumption score, and can afford to have 2 or more meals a day. They consume over 4 food groups including cereals/tubers, oil/fat, pulses, vegetables, sugar, milk, meat/fish and fruits. Though their food stocks are lower than in the normal year in similar period, they are expected to last 2 – 4 months, which is good enough to take them to the next harvest of pulses, and vegetables.	2,888,025	75%	Situation expected to remain the same.
Phase 2	962,675	25%	This population can currently only afford to have a meal a day, with a small proportion still having 2 meals but with reduced intake. They are employing insurance food coping strategies that include reducing food intake, eating of less preferred less expensive food, provision of work for food, with some already eating seed stocks.	962,675	25%	This area suffers chronic food insecurity related to poverty , the situation expected to deteriorate as more food is expected to be taken out of the region making access difficult for the poor and those in chronic poverty however no change in phase is anticipated

Figure 7: IPC map for Elgon region (January-March, 2017)



2.5.3 Hotspots

District	Sub county	Parishes	District	Sub county	Parishes
<b>Tororo</b>	Kisoko	Kisoko	<b>Busia</b>	Buhele	Bukhasaba
	Magola	Magola		Majanji	Majanji, Nagabita
	Kwapa	Asinge		Busime	Busime, Bwarucha
	Iyolwa	Iyolwa, Ojilai, Poyem	<b>Bulambuli</b>	Nabongo	All
		Bunambutye		All	
<b>Pallisa</b>	Opwateta	All		Bwikhonge	All
	Akisim	All		Muyembe	All
	Kameke	All			
<b>Budaka</b>	Kamonkoli	All			
	Katira	All			
	Kaderuna	All			
	Iki-Iki	All			

#### **2.5.4 Hazards and vulnerability**

The region is prone to landslides/mudslides in highlands and floods in lowlands. Prolonged dry spells almost reaching drought levels have recently been experienced in some areas. Endemic diseases for livestock include tick borne diseases, and trypanosomiasis. Crop diseases include maize lethal necrosis, coffee leaf rust, banana bacterial wilt and cassava brown streak. Major human diseases in the region include water borne diseases during rainy season, malaria, acute respiratory infections and HIV.

**Rainfall:** The region received about 75% of the normal rainfall with a relatively longer dry spell occurring during the critical cropping period of October – November 2016. This substantially affected both crop and livestock production.

**Diseases:** There was reported outbreak of cholera in Busia, Mbale, Sironko and Bulambuli districts. Though there were reported incidences of some livestock diseases (mainly FMD) and crop diseases, these did not affect production during the recent season.

**Migration:** There has been reported an influx of livestock farmers with substantial numbers of cattle from western and central Uganda into the districts of Bulambuli (Bwikhonge and Bunambutye sub-counties) and Kween (Ngenge, Kiriki sub-counties), in search of pasture and water.

#### **2.5.5 Food availability**

The main crops grown include coffee, cotton, bananas, maize, sweet potatoes, cassava, millet, Irish potatoes, beans and vegetables; whereas major livestock kept include cattle, poultry, goats, and pigs. Due to the prolonged dry spell experienced last season, harvests of staple foods were estimated to be 10% lower than normal. Current food stocks of staple foods are expected to last between 2 – 4 months for most of the households.

The livestock condition has been reported to be slightly worse than normal due to limited availability of pasture and water. There is also increased pressure on the little pasture and water due to migration of livestock keepers from Central and South Western Uganda into the region. However, there is still above average availability of livestock and livestock products and this is expected to improve if there is early onset of some rains in late January.

#### **2.5.6 Food accessibility**

Households in the region normally access food through own production with an increasing proportion now accessing food through the markets. It is only during times of food shortage that poor households are forced to access food through provision of labour for food or through remittances.

Though there is still enough food that can be accessed by the population, the increasing demand for it from neighboring markets in and outside Uganda, coupled with the relatively lower supply has caused unusual price hikes for most of the staples. As the incomes of poor households are quite low and also have been greatly affected by reduced agricultural activity, their purchasing power has been reduced by the higher prices making it harder for them to access enough food. Due to this, therefore, most of the poor households can only currently afford to have a meal or two a day.

#### **2.5.7 Food utilization**

There are many areas with sufficient food quantities but poorly prepared meals which reduces the overall dietary intake.

Average access to safe water in the region stands at 71.4% with about 85% of the water sources having been reported to be functional in the year 2016.

Latrine coverage in the region stands at 77.2% with Bukwo district reported to have the poorest coverage and is reported to have increasing cases of water borne diseases like dysentery.

### **2.5.8 Stability**

Food availability in the region has been affected by the unusually adverse weather conditions (reduced rainfall and increased temperatures) as almost 100% of the farmers are engaged in rain-fed agriculture. Access to food has been affected by the increasing prices that are resulting from increased external demand and reduced supply. The food security situation in the region is therefore gradually deteriorating and it is expected that some households will not have food stocks at all in the near future.

### **2.5.9 Food consumption**

The composite Food Consumption Score for the region was 55.5 with over 70% of the households reported to be consuming 4 or more food groups. Households consume cereals, tubers, vegetables, fruits, pulses, meat, milk, oils/fat, and sugar. Vegetable consumption is highest in Sebei sub-region; and lowest in Bukedi sub-region.

Currently, only 14% of the households are able to have 3 or more meals a day while 65% are having 2 meals a day, with the rest (21 %) surviving on only 1 complete meal a day. Reduced food intakes have been reported in Tororo, Pallisa, Budaka, Mbale and Bududa districts.

### **2.5.10 Livelihood change**

The majority of households practice mixed farming which is largely subsistence. Crops grown include the traditional cash crops like coffee and cotton; bananas, maize, sweet potatoes, cassava, millet, irish potatoes, beans and vegetables. Livestock types kept include cattle, poultry, goats and piggery.

Households in the region mainly get food through own production, market transactions and food assistance from friends and relatives. The currently stressed households are coping through limiting adult intake; limiting portions at meal time; reducing number of meals per day and eating less preferred and less expensive foods. Those that are tending into a crisis situation are coping through borrowing food from relatives and friends and eating seed stock held for next season.

Households in the region usually earn income from sale of cash and food crops, sale of livestock and livestock products, wholesale/retail trade, regular employment, provision of casual/unskilled labour, and sale of charcoal, firewood, bricks and poles. Though there has been no recent major shift in the livelihood, some households that are having difficulties earning income from their usual sources are coping through selling of household productive assets, selling of food stocks, decreasing non-food expenditures and borrowing of money from high interest money lenders and Micro Finance Institutions.

### **2.5.11 Constraints to production in second season**

- i. Prolonged dry spell
- ii. Change in rainfall pattern
- iii. Pests and diseases
- iv. Inadequate seed and inadequate tools
- v. Shortage of labour

- vi. Poor soils
- vii. Flooding in some areas

### **2.5.12 Risk factors to monitor**

- i. Rainfall onset, cessation and amounts should be monitored until March 2017.
- ii. Food prices of major staples like maize, irish potato, millet, beans, bananas should be monitored throughout the projection period to May 2017, when the next major harvest is expected to start.
- iii. Water and pasture availability for livestock should be monitored especially in Bulambuli and Kween districts
- iv. In the districts bordering Teso and Karamoja, incidences of livestock diseases like FMD, CBPP, Newcastle disease and black quarter need to be monitored till April 2017
- v. There are increasing malaria cases and these have to be monitored throughout the projection period, especially as soon as the heavy rains start.

## **2.6 KARAMOJA REGION**

### **2.6.1 Area description**

Karamoja sub-region is located in northeastern Uganda and comprises the following seven districts: Abim, Amudat, Kaabong, Kotido, Moroto, Nakapiripirit, and Napak. It borders South Sudan to the north and Kenya to the east. Karamoja covers an area of 27,511 square kilometres and has a population of around 1,025,800. It is mostly an arid expanse of savannah, grassland and bush, framed by Mt. Morungole and Mt. Moroto in the east, Mt. Kadam in the south and Mt. Napak in the west. ‘Karamojong’ is a term used to refer to the inhabitants of the districts within Karamoja, but this collective term includes ethnic groups (or sub-tribes) of the Dodoth (in the north); the Jie (in the central areas); the Pokot (along the Kenyan border); and Bokora, Matheniko and Pian (in the south). Smaller ethnic groups include the Tepeth, Nyakwae, Ik, Ngiporein and Ethur.

The region is divided into five livelihood zones namely; western mixed crop farming zone, mountain slopes maize and cattle zone, northeastern highland apiculture zone, south eastern cattle and maize zone and central sorghum and livestock zone.

Karamoja region is vulnerable to climate risks and suffers severe environmental degradation. It is characterized by unreliable rainfall that varies from 500-700 mm in the central lowland areas to 700 – 1,000 mm in the wetter western areas. Often, rainfall distribution is inadequate for optimal crop production and there is usually a lull in the middle of the single rainy season. Nonetheless, rainfall levels are normally adequate for pasture and browse to support livestock production.

The region suffers from severe environmental degradation characterized by wild fires, weak basic social services delivery, limited marketing opportunities (especially for livestock), low productivity of land, inadequate infrastructure, poor health and sanitation conditions, and high prevalence of preventable diseases among children. Literacy levels in Karamoja are as low as 12 percent compared to national average of 71 percent (UBOS 2014), while malnutrition levels sometimes exceed 10 percent which is considered serious by international standards (ACF and MoH 2012, WFP 2014).

Recently (November to date) as a result of inadequate pasture and water there has been migration of livestock and herdsmen from Turkana (Kenya) into Kotido, Moroto and Kaabong Districts while Karamojong herdsmen and their livestock have also migrated to Teso, Lango and Acholi regions.



## 2.6.2 Overall phase and justification

Phase	Current Situation [Confidence Level for Overall Analysis: 3 ]			Projected situation [Confidence Level for Overall Analysis: 3 ]		
	Estimated population	% of total population	Justification	Estimated population	% of total population	Justification
Phase 1	594,964	58%	<p>More than half (58%) of the households were reportedly having acceptable FCS; highest %age of HHs with acceptable FCS were in Napak (75.8%) and Amudat (70.4%)</p> <p>38% of the population meet minimum DDS About half of the population in the region still have reducing food stocks following the recent harvest</p>	531,456	48%	A reduction of about 10 percent of the population in this phase will slip into phase 2 as FCS decreases and dietary diversity reduces. The lean season is expected to start in march
Phase 2	307,740	30%	<p>Consumption of the available food stocks are being stretched to last longer as a coping strategy. Typically, in Karamoja, households consume less than the standard minimum food requirement. Below average harvest was realized in the region and this has been worsened by excessive food sale during and after harvest leading to reducing food stocks. The very poor and vulnerable households are facing acute food insecurity as a result of low purchasing power and their inability to cope.</p> <p>29.5% have borderline FCS respectively.</p> <p>50% of the population are consuming 1 meal a day</p>	387,520	35%	About 5% of the population in phase one will slip into phase 2. Typically, the lean season starts in March but this year, it has started earlier than expected. Until the next green harvest in July, households will rely mostly on markets as the main source of food.. Furthermore, with reduced food and dietary intake, prevalence of acute malnutrition among children under five is likely to increase Since October 2016, the staple food prices have been increasing and are expected to be higher than usual during the peak of the lean season (April-June). The terms of trade are likely to be unfavorable for the very poor and poor households even with increased intensity of coping
Phase 3	123,096	12%	<ul style="list-style-type: none"> <li>• 12.5% have poor FCS</li> <li>• Overall GAM prevalence in the region stands at 12%.</li> </ul>	188,224	17%	It is also expected that the poor will sell their assets (livestock) which is unsustainable. Similarly, without timely government and humanitarian food assistance, it is likely that the severity of food insecurity will significantly increase for this proportion of the population thus increasing the population in phase 3.



#### **2.6.4 Hazards and Vulnerability**

**Erratic rainfall / prolonged dry spell:** The 2016 rainfall in Karamoja sub region started in the months of April and lasted for only two months. The rains received in these two months were above the 10 year mean in all districts of the region. In June, most parts of Karamoja were dry with almost no rainfall received. This lull in rainfall in June is reported by district production personnel to have negatively affected crops, especially maize, millet and sorghum at the critical flowering stage and had a negative effect on overall crop yields. The rains resumed in the month of August in most parts of Karamoja and lasted until November. Rainfall in the second half of the season (August to November) was above the 10 year mean. However, this second half of the season is not considered by household for farming so they tend to ignore and not make use of these rains. The most affected was the central sorghum and livestock livelihood zones (Moroto and Napak) as crop yields were below normal. Similarly, rainfall received in October was too erratic to support additional short-cycle crops. The dry spell/drought was the main shock experienced by most of the households and this was ranked as severe on a scale of “1 to 4”.

**Conflicts over resources (water and pastures):** There were conflicts for livestock watering points and pastures between Karamojong and Turkana pastoralists in Kaabong, Kotido and Moroto. The higher than normal (3-7 degrees celsius above average) temperatures in Karamoja resulted in depletion of water and pasture resources. The scarcity of water and pasture for livestock led to, Karamojong pastoralists migrating to neighboring districts of the Acholi, Lango and Teso regions.

#### **2.6.5 Food Availability**

**Rainfall performance:** The rainfall received in most parts of Karamoja was above the 10 year average for the main cropping season which usually starts in April with harvests being realised in July/August. However, a dry spell in June affected the crops in the field reversing the gains made. The low harvest was attributed to low rainfall, inadequate seeds and tools and insufficient household labour.

**Crop production:** Major staples are rated as moderately available. Kotido in particular indicated abundant availability of sorghum, the main staple crop consumed by households. This suggests that sorghum, the main staple had a normal yield. The main source of these cereals is own production by the households. Oil crops and pulses on the other hand are scarce in availability and can only be accessed from the markets

**Food stocks:** Households have stocks of sorghum, maize and some pulses. Current sorghum stocks are estimated to range from 200-400 Kgs on average per household. On average cereal stocks are expected to last for 90-100 days (about three months) while pulses and oil crops will last 30-60 days. The current food stocks are below normal due to high sales of food stocks during and after harvest. Stocks are likely to be depleted by the start of March for majority of very poor and poor households in Moroto and Napak. It is expected that households will resort to other means like market purchase and gathering wild foods to access food. The prevailing food availability situation means that the lean season is expected to start earlier (in April) than usual, and will peak around July.

**Food sales:** Despite below average harvest, there was excessive sale of food by the majority of households in Kotido, Nakapiripirit and Kaabong and this is attributed to high food prices that are reportedly attractive while some households wasted food through festivities. This has resulted to depletion of food stocks at household level leading most households to increasingly rely on markets for food.

**Livestock production:** District data from Kotido indicated that cattle body condition is worse than normal although the condition of shoats was rated as normal. The deterioration in livestock body condition is

attributed to reduced access to water as a result of silting of most water points, leaving many livestock to aggregate on the functional water points. Pasture on the other hand was reported as normal compared to other years because of the existence of standing hay in the grazing areas.

Generally, increments were reported in the number of cattle in Kotido district while the number of shoats was reported to have reduced compared to 2015. The increment in the cattle population is attributed to improvements in disease control and increased number of calves growing to maturity. Shoats meanwhile are the livestock mainly sold at times of stress to meet food deficits. A reduction of about 40,000 was reported in the number of poultry in Kotido and this was attributed to Newcastle disease.

Cattle and shoats in Nakapiripirit and Amudat are not stressed as water and pasture are still available within and vaccination against Foot and Mouth Disease (FMD) has been ongoing. Water and pasture condition were also reported as normal.

Scarcity of water at major watering points (ponds and river beds) is likely to affect the livestock body conditions, though currently dry pasture is still largely adequate.

**Migrations:** The Turkana from Kenya and Toposa from South Sudan have migrated with their livestock into the region in search of water and pastures and this has resulted into conflict over resources causing Karamojong pastoralists in Kaabong, Kotido and Moroto to migrate to surrounding districts of Lango, Acholi and Teso especially in search for water.

#### **2.6.6 Food Access**

**Market prices:** Most markets in Karamoja reported high food prices from January – June 2016, while there was reduction in food prices from July as green crop harvests began reaching the markets. Current market prices for staple crops remain above the five year average in all districts but mostly in Kotido, Napak and Moroto. Average prices for staple foods are significantly higher compared to the same period in 2015. Prices for staple foods (maize grain, sorghum and beans) since October 2016 have continued to increase. Compared to November, prices for maize, sorghum and beans were higher in December 2016 by 24%, 14% and 19% respectively due to low supply. As harvests for the 2016 season were poor, prices for staple foods are likely to remain high until the next harvest season, constraining access for the poor vulnerable and households.

**Terms of Trade:** There was a slight improvement in the terms of trade for both goats and daily wage rates against maize grain. An increase in the prices for goats improved the terms of trade against maize resulting into improved purchasing power for households with livestock. However, the terms of trade for labor-to-sorghum and charcoal-to-sorghum are 20-40 percent below average in most districts. Therefore as prices for staple foods continue to increase, the purchasing power of the very poor and poor households will be lower and this will lead to increasing costs of living.

#### **2.6.7 Food Utilization**

**Sanitation:** Latrine coverage in the region is highest in Abim (67%) followed by Kaabong (49%) and Nakapiripirit (41%). Furthermore, open defecation rate in Karamoja is at 65% with the highest rates in Amudat (90%) and Moroto (85%). Therefore, poor latrine coverage and high rates of open defecation contribute to high prevalence of water-borne diseases in the region threatening household health and nutritional status.

**Water access:** 68% of households in the region are reportedly accessing safe water with the highest observed in Abim (85%) followed by Moroto (77%), Napak (75%) and Kaabong (74%). Currently, the main source of water are boreholes as other water sources like springs, wells and ponds dried up due to the high temperatures in the region between October and December 2016. Average price of 20 litres of water is

reportedly at 300/= across Karamoja, thus restricting proper utilization of water by households especially for very poor and poor households.

**Water for production:** There is scarcity of water in Karamoja especially for livestock and this is due to high temperatures that has resulted to drying up of the majority of livestock watering points like river beds, protected wells and ponds. Currently, sharing of water sources between human beings and livestock is a common phenomenon, leading to contamination of most water sources. Both human and livestock are depending on boreholes for water and this results into high breakage of boreholes. However, the most affected are livestock especially in Kotido, Kaabong and Moroto resulting from increase in livestock numbers. There is an influx of pastoralists from Turkana with large numbers of livestock forcing Karamojong pastoralists especially in Kotido to migrate to neighboring districts of Acholi, Lango and Teso regions.

### 2.6.8 Stability

Crop production during the 2016/17 harvest season was significantly below average in Moroto and Napak. In Kotido, production was more favourable and minimal outcomes/stressing conditions are expected through January. Food stock levels are average in the markets as a result of supplies from neighbouring districts. Low supplies resulting from the impact of the dry spell could have influenced the high market prices for staple foods which will affect food access for poor households. With stocks expected to be depleted by March, households are expected to heavily depend on market purchase amidst increasing prices for staple foods and this will negatively impact on food consumption at household level especially for very poor and poor households.

### 2.6.9 Food Consumption

The main food groups consumed by households were; cereals, spices and condiments and vegetables. Foods with high nutritive value such as meat, eggs, fish and milk were not frequently consumed and this could be due to low ability to purchase and the majority of the poor households don't own livestock.

**Food Consumption Score:** In Karamoja, more than half (58%) of the households have acceptable FCS while 29.5% and 12.5% have borderline and poor FCS respectively. Napak had the highest proportion of households with acceptable food consumption score with 75.8% followed by Amudat (70.4%). Majority of the population (62%) don't meet Minimum Dietary Diversity (MDD) compared to 38% that meet minimum Dietary Diversity. However, the situation is expected to worsen as food stocks get depleted due to sale of the harvest by households in Kotido, Kaabong, Abim and Nakapiripirit. There is an anticipated reduction in the consumption of major food groups including the foods with high nutritive value. It therefore implies that households will rely on less preferred foods. This implies that the proportion of households with acceptable FCS is expected to decrease.

**Dietary Diversity:** About 62% of households in the region do not meet minimum dietary diversity. Half (50%) of the population in the region consumes 1 meal a day. This might decrease as the lean season is expected to start early than usual thus more households will reduce on the number of meals eaten per day, currently, 60 percent of the population have reduced the number of meals eaten in a day.

**Food groups:** Major food groups consumed by households are cereals, spices, condiments and vegetables. Foods with very high nutritive values like meat, eggs, fish and milk were not frequently consumed and this has detrimental consequences on the nutritional status of children and vulnerable groups. However, with the gradual increase in prices for staple foods, the situation will deteriorate as majority of households are expected to rely on less preferred foods. There is an anticipated reduction in the consumption of major food groups including the foods with high nutritive value such as pulses and oil crops.

### **2.6.10 Livelihood Change**

**Ownership of livestock:** More than half (62%) of households in the region rear livestock of some sort. Amudat had the highest proportion of households with livestock at 92% and this includes camels that produce larger quantities of milk compared to smaller stock. In case of food stress, most households opt to sell off shoats, graduating to cattle in worst scenerios. Currently, about 9 percent of the households in the region are reportedly selling livestock.

**Livelihood coping:** Households have been compelled to engage in a number of livelihood activities such as sale of firewood and charcoal, casual labour, sale of livestock due to limited livelihood options. 39 percent have increased sale of firewood and charcoal while 38% rely on casual labour. Households are also coping through gathering wild foods or hunting (44%). Similarly, households are also expected to resort to sale of productive assets including livestock.

**Food coping:** Analysis of the coping strategies show that reliance on less preferred or less expensive food (73%) was the most widely used strategy. About half of the population (53%) are coping by reducing food consumption (by portion size and frequency of consumption), and 44% are borrowing. Also observed is increased sale of livestock graduating from shoats and culminating to cattle when situation gets worse especially for households in Moroto and Napak. This period is also associated with low opportunities for agricultural labor.

**Migrations:** Herders are migrating with their livestock in search for pastures and water. In Kotido, herders are migrating to Abim, Agago, Pader and Kitgum while in Kaabong, herders are migrating to Kamion Kalapata and Loyoro. This is attributed to drying up of watering points such as ponds, river beds and protected wells. Herders with their livestock are expected to return back about a month after the onset of the first rains that would support the regeneration of pastures and improved access to water.

### **2.6.11 Nutritional Status**

FSNA (WFP and UNICEF Jan 2016) preliminary results show that the overall GAM prevalence in Karamoja stands at 12.1%. This indicated a decline from 16.3% in December 2015 (same period). Amudat for the first time had the highest prevalence at 15.5%. The GAM prevalence is anticipated to gradually rise as the lean season progresses. Overall GAM prevalence in the region is two points above the crisis threshold.

### **2.6.12 Risk Factors**

- i. Rainfall amounts including timing and distribution
- ii. Market prices
- iii. Food stocks
- iv. Bad roads
- v. Crop and livestock diseases
- vi. Livestock watering points as well as livestock movement

### **2.6.13 Recommendations**

- i. Interventions that increase food access for the food insecure and those with borderline food security be undertaken such as cash/voucher for work programmes.
- ii. Carry out mass screening to monitor malnutrition rates
- iii. Sensitization of the community on food utilization (preparation, sanitation and hygiene)
- iv. Intensification of efforts to diversify livelihood options like bee keeping

## **2.7 LANGO REGION**

### **2.7.1 Description of the area**

Lango sub-region of the Northern Uganda is composed of 8 districts namely; Lira, Apac, Kole, Oyam, Dokolo, Amolatar, Alebtong and Otuke; with a total population of 2,174,600 people. Dominant language in the Sub region is Luo. The great Lango sub-region is bordered by Acholi, Karamoja, Teso, Busoga and Bunyoro regions. The main soil type is sandy-loam with patches of red ferralitic soils in the districts of Alebtong and Otuke in the sub-region.

Lango districts have a generally flat topography, with a few isolated known hills such as Otuke, Ngetta, Ibuje, Kangai, Alido, Aloji hills among others. The vegetation type is of the savannah with predominant shrubs and relatively few robust natural trees across the plain.

The main soil type is sandy-loam with patches of red ferralitic soils in the districts of Alebtong and Otuke. The region receives a bimodal rainfall pattern with season “A” starting in mid-March and peaking in May, while season “B” begins from August and peaks in Sept during a normal year. The annual rainfall ranges from 800 to 1 500 mm per annum. However, with climate and weather changes, there has been irregularities in the rainfall amounts and distribution across the districts/region, thus affecting the agricultural activities of the region.

About 85% of the population of Lango derives their livelihoods from agriculture mainly mixed farming (crop and livestock production) and other non-agricultural livelihoods sources like whole sale trade, agro-processing, produce marketing and retail trading, charcoal burning, local brewing, quarry works and mining, fishing especially in Amolatar, Apac and Dokolo, metal fabrication, hand crafts, bodaboda riding, sports betting, masonry among others. About 40 % of the population are extremely poor. The main livelihoods are mixed farming that includes crop production, livestock farming and agro-forestry. There are also other income generating activities like running small hotels and restaurant business in the urban areas, whole sale trade, agro-processing, retailing, fishing, quarry and mining, metal fabrication and blacksmith among others.

### **2.7.2 Hazards and vulnerability**

The region has experienced one major shock in the past 15 years and that was 2002-2007 conflict arising from the Kony insurgency. This led to loss of productive assets and lives, disruption in the economic activities, destruction of social amenities resulting into wide spread poverty across the region. The insurgency occurred in the entire Northern region but was more intense in the Acholi sub-region in the districts of Amuru, Gulu, Nwoya, Lamwo, Pader, Kitgum and Agago. The impacts however, are still being felt up to date although the magnitude seems declining with the return of peace in the region.

The most recent hazard experienced in the region was inadequate rainfall that was experienced across the 2 seasons in the Lango sub-region districts which resulted into low crop yields and inadequate pasture. This situation will even escalate with the influx of the Karamojong pastoralists in the region.

Other hazards included pests and diseases outbreaks (crop and livestock), diminishing food stocks, and human diseases (Hepatitis B, Malaria, HIV/AIDS).

### 2.7.3 Overall phase and justification

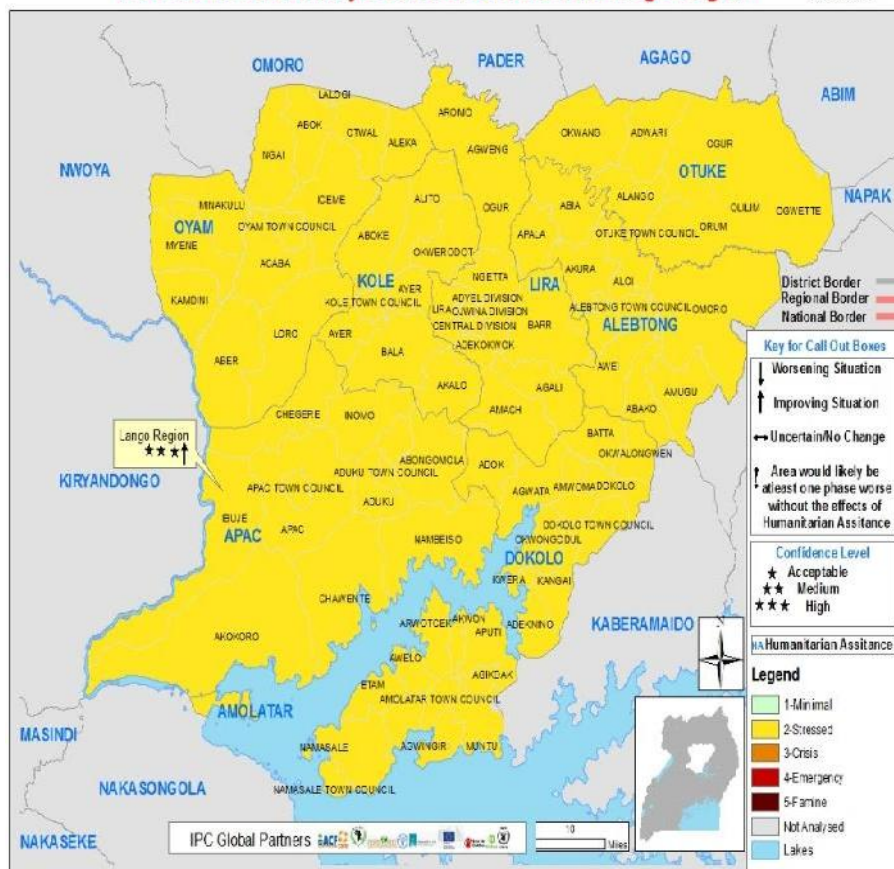
Phase	Current Situation [Confidence Level for Overall Analysis: 3 ]			Projected situation [Confidence Level for Overall Analysis: 3]		
	Estimated population	% of total population	Justification	Estimated population	% of total population	Justification
Phase 1	1,739,680	80%	<p>The population has FCS of 48 which is in the acceptable range with at least 5 food groups Less than 20% can afford 3 or more meals/day; a greater proportion of the population (60-70%) eat at least 2 meals/day.</p> <p>The nutritional status of this population remains fairly stable malnutrition rates within acceptable range.</p>	1,630,950	75%	Food availability/access and consumption will reduce until the first season of 2017.
Phase 2	434,920	20%	<p>Less than 20% of the population consume 1 meal/day; The productivity/yields of these enterprises were greatly affected by the inadequate and erratic rains and prolonged dry spell of 2016. This has limited food availability and to some extent access and income. The prolonged dry spell, occurrence of inadequate, below normal and erratic rains affected both crops and livestock productivity throughout the year thus reduced yield/productivity by about 30-40% of the actual.</p>	543,650	25%	The effects of the dry conditions are forecasted to continue leading to further stress being faced by the population. It is expected that about 5 percent of the population are likely to slip into phase 2 thus increasing the proportion of the population that is stressed.



**Figure 9: IPC map of Lango region (January-March, 2017)**

**Acute Food Insecurity Situation Overview in Lango Region**

Valid From: January 2017  
To: June 2017



**2.7.4 Hotspots**

District	Sub county
<b>Otuke</b>	ogwette
	Olilim
	Orum
	Ogor
<b>Alebtong</b>	All Sub counties
<b>Amolatar</b>	All Sub counties
<b>Dokolo</b>	All Sub counties
<b>Lira</b>	Ogur, ,
	Agweng,
	Aroma
<b>Apac</b>	Chawente
	Nambieso
	Akokoro

### **2.7.5 Food availability**

There is limited availability of food from 2016 harvest (due to inadequate/erratic rains). The region experienced limited rains in the first season from April with a prolonged dry spell between May and early July 2016. This resulted in low crop production, a reduction of up to 50 % of a normal harvest. The second season was characterized by poorly distributed and erratic rains across all the districts in the region, leading to further reduction in crop yields. Apac district generally received better rains than any other district in the region.

Most of the food items are still available in the market and at household level through own farmer production. Average yield reduction of about 33% was registered for crops grown during the second season. These included cassava, beans, maize, rice, sweet potatoes and pigeon peas. Pulses were most affected with losses going as high as 40%. Stocks of beans, rice, cassava, sweet potatoes, rice, pigeon peas and beans are available at household level and these are expected to last on average 55 days, however with the start of the school term the stock that exists at household level is expected to supplement school feeding.

The livestock numbers especially of bulls and heifers within the region are reported to have increased due to influx of Karamojong who have entered the eastern districts of the region in search of water and pasture. Other types of livestock have increased within their normal reproduction rates. Livestock products like milk are limited due to reduced water and pasture. Crop and livestock pests and diseases have also affected availability of food items.

### **2.7.6 Food Access**

Households are accessing the available food through market purchase and own farm production. However increasingly market purchase will take a lead during the months of February up to the first season harvest of 2017. The poor performance of 2016 affected access for majority of the households. Therefore, most are accessing food through the market until next harvest of 2017. Some food is also coming in from neighbouring districts. There is an increase in food prices reported with most households spending more of their money on food. Common food staples are reported to be scarce with prices expected to increase due to high demand within and outside the region. Most items are relatively scarce and are projected to become completely unavailable in the next 3 months. These include sweet potatoes, fresh tubers and chips, cow peas and ground nuts. More than a 50% price increase has been registered for maize and its derivatives when current price is compared to 2015 prices, millet 25% increase and 13% for cassava. Projected prices for common staples maize, cassava and millet are expected to show a 23 percent price change when current prices are compared to projected prices.

Animal protein in form of beef, pork and poultry will remain easily available. Average prices of major livestock products have been relatively stable despite the limited supply and are expected to remain fairly stable in the coming months.

### **2.7.7 Food Utilization**

Households consume mostly foods from one food group roots and tuber and cereals despite presence of diverse food sources/groups. The FCS is at 48 which is acceptable. A greater proportion of the population (60-70%) eat at least 2 meals/day. Poor food preparation practices and consumption of limited food amounts affects utilization.

Access to water is 79.9% while access to safe drinking water is at 29.9% which is below the 50% threshold. Only 78% are using 15litres per day. Pit latrine coverage is at 81 percent. However, in the rural districts like Otuke and Alebtong, there is limited toilet coverage and access to improved sanitation facilities.

### 2.7.8 Food consumption

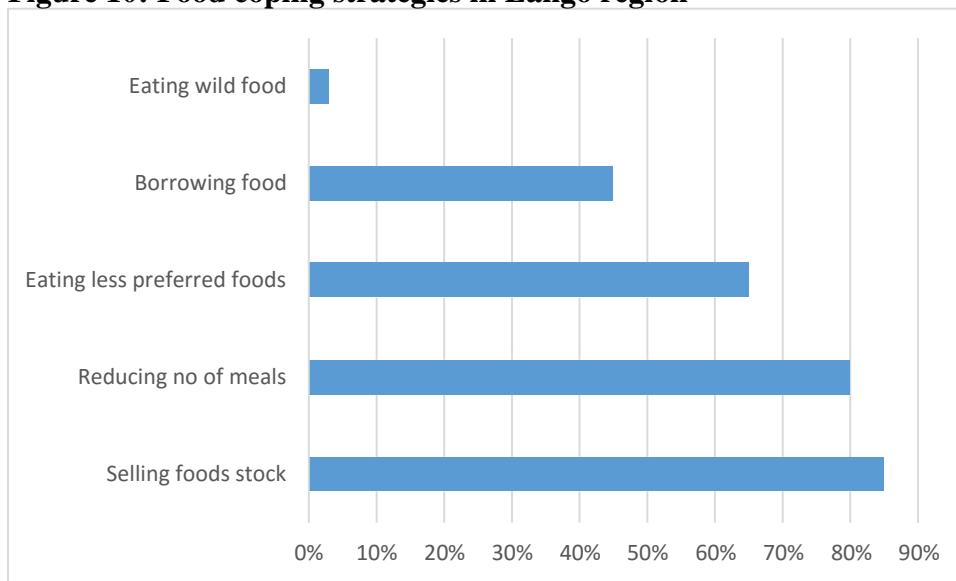
The main crops being grown in Lango sub-region include maize, beans, pigeon pea, rice, sunflower, sweat potato, cassava. The population has FCS of 48 which is in the acceptable range with at least 5 food groups. Less than 20% of the population consume 1 meal/day; 60-70% consume 2 meals/day and less than 20% can afford 3 or more meals/day.

### 2.7.9 Livelihood change

Crop and livestock farming are still important to livelihoods in Lango region, however, it has been observed that there is increase in growing of oil seed crops especially sun flower and other perennial crops such as pineapple and banana which contribute substantially as new income sources.

There has been a slight change in coping strategies with the proportion of the population that are now employing insurance strategies of reducing number of meals increasing from 60 to 70 when strategies in normal times are compared to current times.

**Figure 10: Food coping strategies in Lango region**



It is important to note that more than 80 percent of households are selling food stocks as a way of coping with the current food insecurity situation. The high dependence of the population on crop sales as source of income will affect the household food stocks and lead eventually to their depletion.

### 2.7.10 Health and Nutrition

Global acute Malnutrition rate is at 4% which is within acceptable ranges. Nearly all counties and sub-counties have health facilities. These on average are about 14 kms from households.

### 2.7.11 Risk factors to monitor

Between January to May, 2017 the following aspects should be monitored:

- i. Food prices
- ii. Influx of the Karimojong into the region
- iii. Livestock diseases e.g. CBPP and FMD, Water availability
- iv. Human disease prevalence e.g. Hepatitis, Meningitis and Malaria
- v. Livestock pasture availability

### **2.7.12 Recommendations**

- i. Irrigation facilities be established in drought prone sub-counties of Alebtong and Otuke
- ii. Rehabilitation of valley tanks and dams
- iii. Humanitarian assistance to the region should focus on provision or increasing availability of food

## **2.8 SOUTH WESTERN REGION**

### **2.8.1 Area description**

The region is composed of districts of Mbarara, Bushenyi, Sheema, Ntungamo, Kabale, Rukungiri, Kanungu, Isingiro, Kiruhura, Ibanda, Mitooma, Rubirizi, Kisoro and Buhweju; with a total population of 4,421,700 people. The region is currently experiencing dry conditions with some isolated intermittent light rains. The area receives between 1120 and 1223 mm of rain annually. The current annual cumulative rainfall (July-June) is 1126mm which is above long term mean but below 2015 level.

All households cultivate food crops for own consumption and surplus for sale. A number of them also engage in cash crop production including tea, coffee, tobacco, bananas and tree planting. Generally, due to small land holding, the amount of food produced does not adequately fulfill the population's annual food needs. Therefore, food purchases contribute to bridging the food gaps. There is a tendency, among the population, to sell off produce at the expense of domestic consumption.

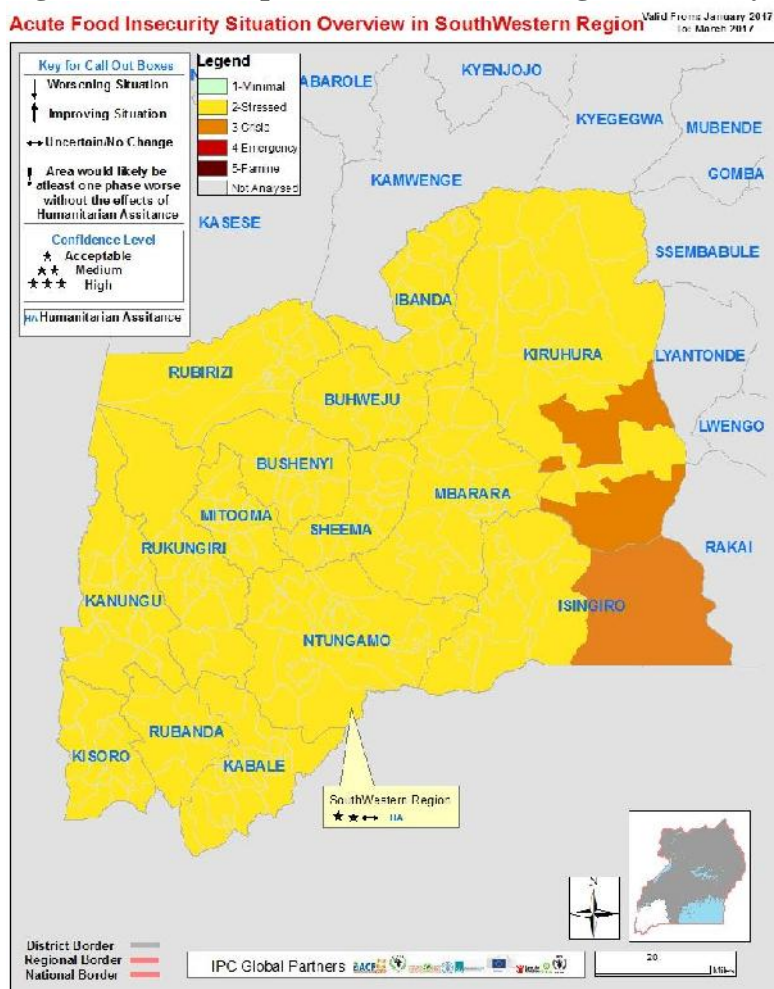
Livestock production ranges from zero grazing and fenced farms for dairy cattle as well as ranches for beef cattle. Cattle is sold throughout the region at both local and cross-border markets (Burundi, Rwanda, DRC and S. Sudan), while other stocks are purchased by traders and then transported to Kampala for slaughter. The export of cattle poses a risk of depleting improved cattle breeds in the country. Coffee and bananas are also sold at major trading centers then taken to Kampala and other areas within the country. The mountainous terrain and poorly maintained feeder roads are difficult to pass and susceptible to landslides during the rainy seasons (March-June and August-November). Therefore the ability for households to access markets is difficult during the rainy season.

Weather related hazards like drought in the cattle corridor, hail/windstorms, flooding, landslides together with crop diseases such as banana bacterial wilt and cassava mosaic, potato wilt and livestock diseases such as Foot and Mouth disease, are the major impediment to food security in the region.

## 2.8.2 Overall phase and justification

Phase	Current Situation [Confidence Level for Overall Analysis: 2 ]			Projected situation [Confidence Level for Overall Analysis: 2 ]		
	Estimated population	% of total population	Justification	Estimated population	% of total population	Justification
Phase 1	2,874,105	65%	Over 82% of the population have acceptable Food Consumption Score but which shows signs of deterioration for some households. These households can afford to have 2 or more meals a day and a minimum diet of 4 or more food groups within a seven day recall period. Over 60% of the population currently have enough food which is also accessible and are not employing any food coping strategies	65%	2,874,105	Situation expected to remain the same
Phase 2	1,238,076	28%	This population also has acceptable FCS but with limited dietary diversity with a predominance intake of cereals and pulses and limited intake of protein rich fish, meat and milk. The poor food preparation practices also significantly reduces the dietary diversity.	28%	1,238,076	Situation expected to remain the same
Phase 3	309,519	7%	Over 17% of the population were reported to have between borderline and poor food consumption. However, a big proportion of these can still afford to have between 1 – 2 meals a day with slightly deteriorating food groups but no significant loss from the 4 minimum food groups. This population has also been reported to have chronic nutrition problems	7%	309,519	Situation expected to remain the same

**Figure 11: IPC map for South Western region (January-March, 2017)**



### 2.8.3 Hot spots

District	Sub/county	Parishes
Kiruhura	Nyabushozi	Sanga
Isingiro	Rushasha	Rwantaha, Rushasha, Ihunga
	Endinzi	Endizi, Kikoba, Rwanjogyera, Nyabyondo
	Rugaaga	Rwangabo, Nyabubare,
	Mbaare	Nshororo, Rutete, Kihanda, Burigi
*Bushenyi district <sup>1</sup>	Kashumba	Murema, Kashariria, Kankungi
	Kyamuhunga	Nshum, Swazi, Kabingo, Mashonga
	Bitooma	Kakiira

<sup>1</sup> Notes: \*Hotspots in Bushenyi identified but phase not different from general phase

#### **2.8.4 Hazards and vulnerability**

**Rainfall:** During the August-December 2016 season, dry spell extended to late September. First rains were received in mid-August but no more rains came until mid-September. This resulted into withering and drying of all crops that had been planted after the first rains. This further frustrated farmers' efforts to complete planting of the opened up gardens. Temperatures were generally higher than normal with a lot of scotching effect on crops and drying up of pastures and water for livestock. The prolonged dry spell and reduced rainfall caused poor establishment of crops, pastures, increased disease incidences and other related hazards resulting into failure of crop and livestock production.

**Pests and Diseases:** The region experienced an increase in tick-borne diseases leading to death in Mbarara, Kiruhura, and Isingiro districts. The major livestock diseases recorded were FMD, and swine fever. The major crop pests and diseases recorded were BBW, cassava mosaic virus, potato wilts which were experienced across the region.

**Landslides/Mudslides:** These were experienced in Buhweju, Kabale, Kisoro, Kanungu, Isingiro, Rubirizi, and Bushenyi.

**Soil fertility:** A declining soil fertility trend and little application of fertilizers was noted across the region

#### **2.8.5 Food availability**

Because of the aforementioned crop failure resulting from prolonged dry spell and low rainfall level, food stocks are generally low and can hardly support communities for a period exceeding two months in most parts of the region. The inherent social-economic forces, coupled with high poverty levels in the region compounded by improper planning, make stocking foods difficult. There is evidence that some farmers sell off immature crop gardens immediately after flowering to produce traders, which does not only threaten food and nutrition security but also exploits the farmers.

Food stocks on markets continue to be stable within the normal seasonal food availability trends. All foodstuffs are available in markets in sufficient quantities in the region, however the increasing demand from external markets threatens food availability in the region. There is significant inter-regional food trade within and across the country. Major cross border food markets are sought in Rwanda, DRC, Tanzania, Burundi, South Sudan and Kenya. Commonly traded cross boarder food stuffs are maize, beans, beef, breeding stock, eggs, pigs, bananas, avocado, pineapples, vegetables, chicken and milk. The region imports a few foodstuffs to her markets notably rice, maize flour, macrons, sugar and wheat flour.

Notably, below normal harvests were experienced in all districts due to intensive dry spell and hailstorms. With the exception of Isingiro (sub-counties of Mbale, Rugaga, Kashumba, Rushasha and Endinzi), Kiruhura (Nyakashashara, Kashongi and Kitura sub-counties) and Mbarara (Kashare, Biharwe and Rubaya) districts where food shortage still persists, the other districts have since restored their food stocks with the on-set of harvesting of beans, maize, sweet/Irish potatoes, cassava, millet and banana in December, 2016.

Due to reduced pasture and water availability, milk and beef production have significantly reduced in the region curtailing the incomes of households that majorly survive on sale of livestock and livestock products.

#### **2.8.6 Food access**

Sufficient quantities of food stuffs are available on market but there are noticeable price increases particularly for maize flour and matooke.

With lower than normal income and high prices, the poor households' purchasing capacity has significantly reduced prompting most of them to employ insurance and crisis food coping strategies. Generally, food access in the region is below normal levels.

### **2.8.7 Food utilization**

There are many areas with sufficient food quantities but poorly prepared meals which reduces the overall dietary intake.

Average access to safe water in the region stands at 69.9% with Bushenyi District having the highest access levels at 92% while Kisoro District has the lowest at 34%. Overall, access to safe water for domestic and commercial use is not far from the national average. With regard to equity of safe water distribution, Mbarara has the highest even distribution of 55.4% while Ibanda has the lowest score of 4.4 %. The average score on even distribution for the region is 18.4%

91.2% of the households have access to improved sanitation services with Rukungiri district having the highest at 98.9% and Buhweju the lowest coverage at 87%. Latrine coverage in the region stands at 85% with Rukungiri having the highest coverage and Kisoro the lowest.

### **2.8.8 Stability**

The cropping cycle used to start as early as February and by May, harvesting for early crops would begin. But the delayed onset of rains has led to a change of the cycle for both seasons. Unfortunately the rains not only come late but also are received for a short period than normal.

There is evidence that some farmers sale off immature crop gardens immediately after flowering to produce traders, which does not only threaten food and nutrition security but also exploits the farmers.

The changes in the weather patterns have led to increased disease incidences, low production, increased food prices hence less access and utilisation of food. Livestock production has also reduced both for livestock and livestock products as there is less water and pasture available for the livestock.

### **2.8.9 Food consumption**

The region has a rich dietary diversity derived from matooke, cassava, maize, sweet potatoes, irish potatoes, meat, beans, fish, ground nuts, millet, sorghum, and vegetables. There is however limited intake of protein rich fish, meat and milk in some areas. Although the region has high production of vegetables and fruits, their preparation and intake is substantially poor in some parts of the region.

Currently, about 48% of the households are able to have 3 or meals a day with a good dietary diversity over a seven day recall period. Another 48% can afford to have 2 meals a day though some households in this category are unable to consume the minimum 4 food groups in a seven day recall period. The remaining 4% are having 1 meal a day and have resorted to employing crisis food coping strategies to survive. On the overall, about 82% of the households have acceptable food consumption score while 15% have borderline food consumption score. The remaining 3% with poor food consumption can still survive through employment of crisis food coping strategies.

### **2.8.10 Livelihood Change**

The major source of livelihood is subsistence farming although farmers are significantly under taking commercial farming orientation. However, overall individual household production levels remain low due to small household land holding, low fertilizer use and predominant use of rudimentary tools/technologies. The major food sources in the region are own farm production with supplementary market purchases (of maize flour, beef, milk, vegetables, fruits and G. nuts) to supplement home farm production and increasing food



diversity. Of recent, there has been an increase in foodstuff demand from neighboring regions and upcoming regional markets which reduces our local community food reserves due to sale to these markets.

20% of the households are now employing insurance food coping strategies (i.e. Reduced number of meals eaten per day; reduced portion size of meals; reduction in the quantities consumed by adults,/mothers for young children; reliance on less preferred, less expensive food & borrowing food from friends). 10% are employing crisis food coping strategies including borrowing from money lenders to buy food, relying on food aid, going hungry among others.

About 60% of household income is spent on school fees, 10% on medical expenses, 10% on food and 20% on other household needs including social events. Households that have recently experienced shocks in income patterns are coping through borrowing, engaging in semi-commercial agriculture; provision of casual farm and non-farm labour; and liquidation of productive assets.

Of recent, the following changes have occurred within livelihoods across the region;

- i. Increasing sale of produce and livestock products to emerging regional and international markets
- ii. Increasing agriculture commercialization following government prioritization and support to commercial production
- iii. Reducing poverty and literacy levels due to government support like UPE, USE and UPOLET and other poverty eradication oriented programs
- iv. Increasing access to safe water and improved sanitation
- v. Changes in farming systems

#### **2.8.11 Constraints to production**

- i. Prolonged dry spell, which largely affected the whole region although at different magnitudes.
- ii. Unpredictable rains, which led to hailstorms and mudslides, causing damage to crops and threatened food and income security.
- iii. Emerging pests and diseases like TBDs, FMD and resurgence of BBW across the region.
- iv. Declining soil fertility and little application of fertilizers
- v. Use of rudimentary tools and agricultural production technologies
- vi. Poorly motivated extension service with lack of transport for extension staff
- vii. Vermin and destruction of crops by domestic and wild animals

#### **2.8.12 Risk factors to monitor**

- i. Occurrence of weather related hazards such as mudslides/landslides etc (3 months)
- ii. Pests and disease incidences (3 months)
- iii. Rainfall patterns (3 months)
- iv. Water availability for both domestic and livestock use and pasture condition (3 months)
- v. Sale of immature crop gardens (5 months)

#### **2.8.13 Recommendations**

- i. Promotion of use of simple/affordable irrigation technologies
- ii. Promotion of use of farm labour saving technologies
- iii. Advocacy for use of improved agricultural production tools/practices/technologies
- iv. Growing of famine reserve crops and drought tolerant/early maturing crops
- v. Enactment of legislation to compel households to store sufficient food quantities

## 2.9 TESO REGION

### 2.9.1 Area description

Teso sub-region covers the districts of Soroti, Kaberamaido, Katakwi, Amuria, Bukedea, Kumi, Ngora and Serere in the Eastern part of Uganda, with a total population of 1,936,100. The community of this region derive their livelihood through mixed farming involving crop production and livestock keeping and experience a bimodal type of rainfall of about 1 000-1 200mm per annum with two cropping seasons with the first rain season being from late March to June while the second rain season is from late July to October. In recent years however this pattern has been erratic with uneven distribution across the region especially in the 1<sup>st</sup> cropping season of 2016 where the region experienced a prolonged dry spell from May to July and this affected crop production.

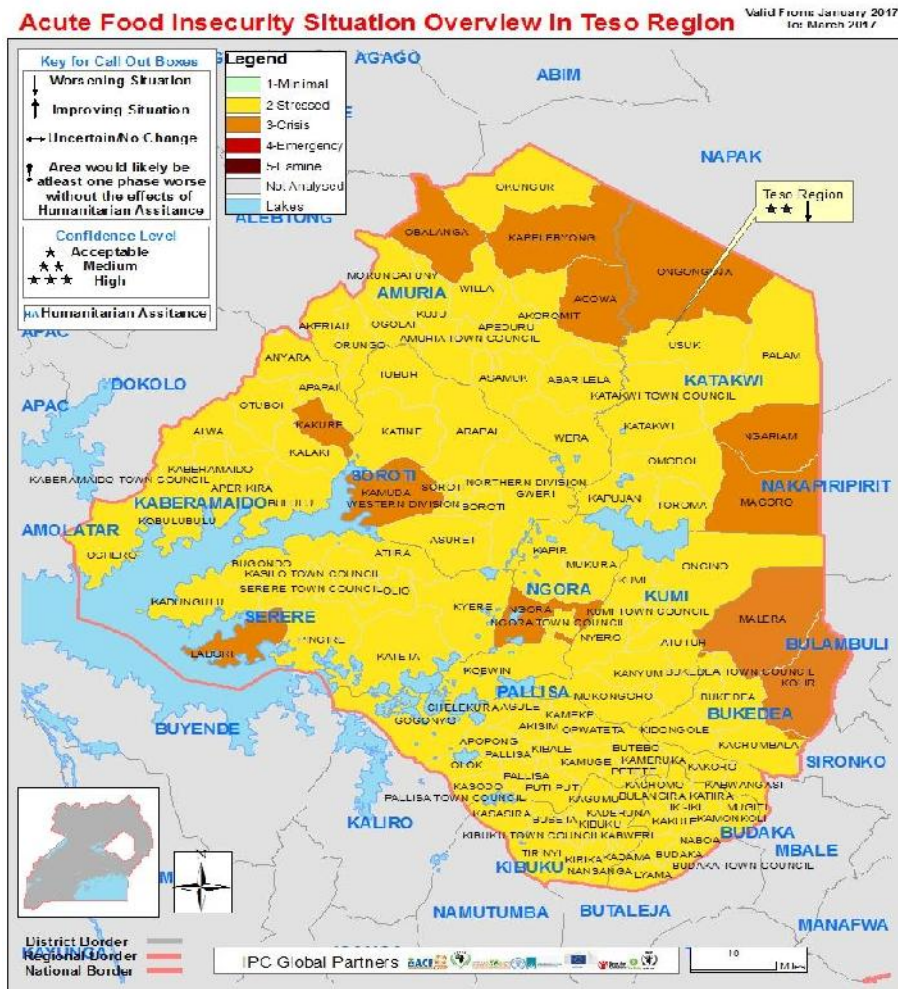
The main source of agricultural labour is animal traction and hand hoes with farming in the region characterised as predominantly subsistence. In addition to the main farming livelihood, the communities are involved in trade of both crop and livestock products together with other merchandise. Other livelihood strategies include, a number of off-farm activities like; “*Bododa*” cycling, black smiths, fishing, charcoal and local brewing “*Ajono*” trade, brick making, stone and sand quarrying among others.

The vegetation in the region can best be described as grassland savannah. The soils are mainly sandy loam with a variation from sandy to loamy soils depending on the terrain. The area is endowed with lakes, rivers and vast wetlands which however are getting degraded. Productivity of the soils is continuously declining in the region due to declining soil fertility as a result of poor soil management practices and poor cultivation methods.

### 2.9.2 Overall phase and justification

Phase	Current Situation [Confidence Level for Overall Analysis: 2 ]			Projected situation [Confidence Level for Overall Analysis: 2 ]		
	Estimated population	% of total pop'n	Justification	Estimated population	% of total pop'n	Justification
Phase 1	638,913	33%	This is the population that could afford 3 and more meals a day.	638,913	33%	This situation is expected to stay the same for this proportion of the population because these have own food stocks and stable income.
Phase 2	1,103,577	57%	Consume atleast 2 meals per day	1,006,772	52%	Due to continued dry spell and dwindling food stocks about 5% of households will slip into phase 3
Phase 3	193,610	10%	Consume 1 meal per day	290,415	15%	Part of the population having two meals a day may slide to one meal a day as food stocks continue to dwindle and the weather focus indicates that there will be no rains soon and harvests are not expected in the next 4 months

Figure 12: IPC map for Teso region (January-March, 2017)



### 2.9.3 Hotspots

District	Sub county	Parish
Bukedea	Kolir	Aminit
		Apopong
		Miroi
		Kolir
		Kanyipa
Katakwi	Malera	All parishes
	Ngarium	All parishes
	Ongongoja	All parishes
Kaberamaido	Magoro	All parishes
	Kakure	All parishes
Amuria	Kacowa	All parishes
	Obalanga	All parishes
	Kapelebyon	All parishes

#### **2.9.4 Hazards and Vulnerability**

The most significant hazard affecting the community during the second season of 2016 was identified as the lack of rain exacerbated by change in rainfall patterns. Rainfall unreliability disrupted production affecting crop yields and subsequently household food availability. There was an anomaly in rainfall received in the month of September to December 2016. This was closely followed by high incidence of pests and diseases. It should be noted that some areas suffered hailstorms during the brief but heavy rains in the second season. These factors combined greatly impeded the crop performance of key food crops in the Teso region.

#### **2.9.5 Food Availability**

Cassava, sorghum, maize, finger millet, simsim, beans, groundnuts and sunflower were grown by households. There was a 30% decline in land acreage cultivated in 2016 when compared to 2015. Yields greatly declined in 2016 as compared to 2015 just like areas cultivated. Most areas experienced worse than normal crop conditions during the growing season of 2016.

Stocks held by households in 2016 were low even after the harvests, except in Bukedea where an average 2<sup>nd</sup> harvest was received. Currently low levels of food stocks consisting majorly of cassava, which is harvested piecemeal is available at household level. Other stocks include ground nuts, sorghum, sweet potatoes and maize are just expected to last a little over a month but on average stocks will not last more than one month from now. The major source of food is normally own production however households were observed to be increasingly relying on the market. The availability of major staples such as finger millet, and sorghum were observed to be scarce. Cassava, maize, simsim and beans was observed to be moderately available however gradually declining over the last couple of months. Sweet potatoes a major staple in the region was relatively scarce in 2016 and is forecasted to become unavailable during the first quarter of 2017. Currently food is inadequately available for the majority of the population in the region. Overall, food stocks are expected to dwindle even further as the dry spell continues and there are no replenishments on the stocks.

#### **2.9.6 Access to Food**

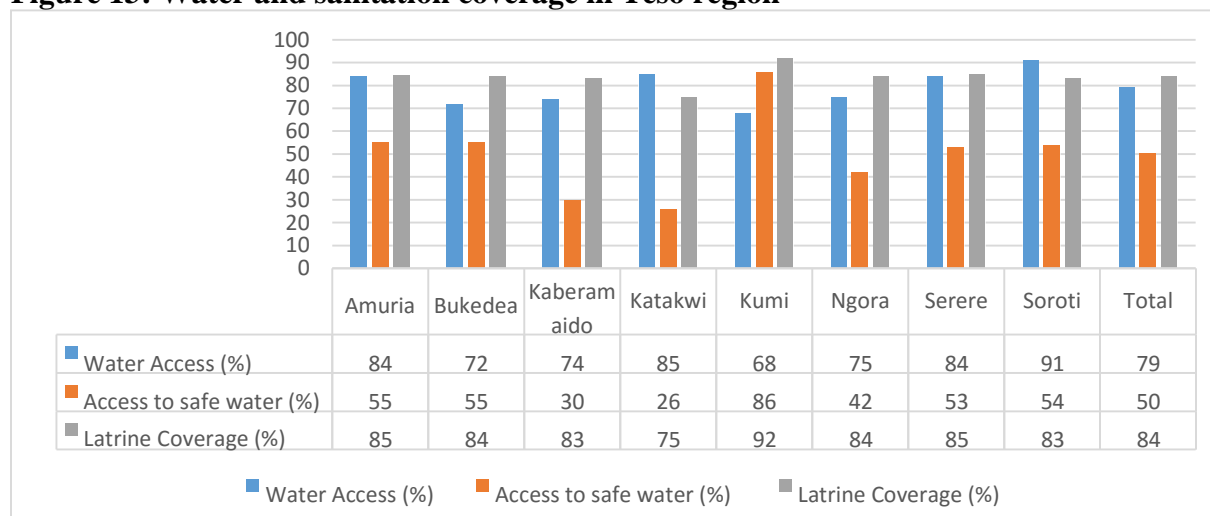
Average price of food items in 2016 were generally higher than they were in 2015 for most items. A comparison of 2016 and 2015 food prices shows a 41% price change. The increase in prices has been attributed to shortage of food items due to the prolonged dry conditions. Prices are expected to increase in the next 3 months by about 20%. Prices of cattle in 2016 were lower than in 2015 and remained almost constant for goats, sheep and poultry. The cause of this was the reduction in cross border trade because of the war in South Sudan. Prices of livestock has thus declined and are expected to decline further as households sell to pay school fees and body conditions deteriorate. Thus in conclusion food access is reduced because own food stocks are limited and the prices of food stuffs in the market is escalating. Food access is expected to worsen as a result of poor harvest in the previous season and also as a result of low purchasing power attributed to poverty and high market prices for major food stuffs.

#### **2.9.7 Food Utilization**

The composition of food consumed is mainly starchy. Water sources in the region include bore holes, wells and springs and tap water. At least 84 % of boreholes are reported to be functional and are estimated to be 2.5-3 km away from the households. The quality of water is reported to be good. Access to water in the region is seen to be above average at 80%; with Kumi district having the lowest water access and Soroti district with the highest level of access to water. Access to safe water is estimated at about 50 percent. Most of the spring wells and streams have dried up; and there is likely to be water scarcity for both human and animals in case the dry spell persists.

Only about 49.5 % of households in one of the districts (Bukedea) in the region is able to access 15 litres per person per day. Currently due to poor performance of the rains, water stress leading to drying of water streams and boreholes have affected water availability. The price of a jerrican of water is shs.500/= for a 20 litre jerrican. Latrine/sanitation coverage is above national average (80 percent) and increasing. Though water coverage is low in Kumi the reverse is true when it comes to latrine coverage with Kumi recording the highest (92%) and Kaberamaido and Soroti recording the lowest at 83%.

**Figure 13: Water and sanitation coverage in Teso region**



### 2.9.8 Stability

With production below average as a result of delayed rains and prolonged dry spell coupled with increasing food prices, the household food stocks are not enough to carry atleast 15 percent of the population to the next harvest hence affecting food stability. Food stability is greatly affected due to limited food stocks and high prices of food stuffs.

### 2.9.9 Food consumption

Food consumption in the region has reduced due to failure of the first and second cropping seasons and increasing food prices that limited access. The effects of failure of the first and second cropping seasons are likely to continue into the first quarter of 2017, therefore affecting consumption. There is scarcity of staple foods and pulses reported in the region; mainly starchy food is eaten. The unavailability of other protein sources lead to fish being considered an alternative source for the communities that could access fish products. The scarcity of staple food and pulses has led to reduced number of meals hence affecting food consumption in the region. Dry conditions are expected to continue and the situation is expected to worsen.

**Food Consumption Score:** A composite Food consumption score of 35.9 indicates a good food consumption however this is just one point above the borderline food consumption. The FCS is highly skewed by over consumption of tubers and roots and cereals. Though the FCS is acceptable it is deteriorating due to loss of food groups. There has been reduction in the number of meals consumed to majorly 1 meal per day for the worst affected communities. Majority of households (67%) consume 1 meal per day followed by 23% consuming 2 meals per day with only 10% consuming 3 meals.

**Dietary Diversity:** The diversity of the meals consumed indicates mainly starchy food items. Livestock, fish and poultry products are easily available as of the last quarter of 2016 to date. The unavailability of other

protein sources lead to fish being considered an alternative source for the communities that can access fish products. Besides these products exhibited a lower price increase when compared to other food commodities

#### **2.9.10 Livelihood Change**

The majority of households rely on crop and livestock production, however this was affected by erratic weather conditions. The households are depending on their own production but because of the prolonged dry spell, dependency on the market for their food requirement is increasing. Livestock is being sold off in order to purchase food items yet livestock prices are declining as compared to 2015. Currently there is no major livelihood change as communities in the region continue to rely on the traditional agricultural production as the major source of livelihood but increasingly the market is becoming a major source of food for the population yet incomes arising from crop and livestock sales are declining. Terms of trade are declining, cereals and tubers prices are increasing at higher rate than livestock prices; thus ability to invest in purchase of agricultural inputs in preparation for the next season has been hampered. There is no major livelihood change, however due to failure of crop production in the second season, some communities have tended to sell livestock and other house items in exchange for food. The situation is expected to worsen and only improve with the first seasonal harvest expected in July 2017.

Most commonly applied coping strategies is reducing number of meals or the portion sizes of meals followed by reducing nonessential expenditures. These strategies are found to be employed by the bulk (90%) of the population. Other strategies employed include; selling assets (50%); relying on less preferred food/ less expensive foods (40%); borrowing of food from friends and relatives (20%) and as a last resort, spending savings.

#### **2.9.11 Nutritional Status**

GAM rates were reported for Kaberamido district alone and GAM was estimated at 0.56, SAM at 0.1 and underweight at 0.4%. Exclusive breast feeding is under 50%. Kaberamaido is reported to have atleast 5 Therapeutic feeding centers. Vitamin A supplementation in pregnant women is 69.5% in the region and vitamin A supplementation in children under 5 is 40.5% in the region.

#### **2.9.12 Risk Factors to Monitor**

- i. Pasture availability to be monitored.
- ii. Water availability during the drought period.
- iii. Pest and diseases in crop and livestock. Examples fruit and leaf spot, citrus fruit fly, CBSD, FMD and tick-borne, and Newcastle disease in livestock
- iv. Food prices.

#### **2.9.13 Recommendations**

- i. Rehabilitation of existing watering points
- ii. Desilting of water infrastructure
- iii. Provision of food assistance to the most affected population
- iv. Plan for distribution of planting material (bio fortified and staple crop varieties)
- v. Target most affected sub counties in the region.

## 2.10 WESTERN REGION

### 2.10.1 Area description

The region consists of the districts of Bundibugyo, Kasese, Kabarole, Kamwenge, Ntoroko, Kyenjojo, Kyegegwa, Kibaale, Kagadi, Kakumiro, Hoima, Buliisa, Masindi and Kiryandongo; with a total population of 4,926,500 people. The region is highly varied in terms of livelihood zones, ethnicity, climate and relief. It is bordered in the north by the River Nile and runs along the western border with DR Congo with Rwenzori Mountain stretch covering 80 km (UBOS, 2015). In the East, it is bordered by the Central Region of Uganda and in the south, it is bordered by South Western region. The major natural physical features are the highland areas of Rwenzori and the western arm of the East African Rift Valley. It has major lakes like Albert, George, Edward and over 80 small crater lakes. The region has major rivers like Kafu, Semliki, Mpanga, Muzizi, Nkuse that feed into most regions' fresh water bodies and swamps. There are national parks, game and forestry reserves like Rwenzori, Semliki, Queen Elizabeth, Murchison Falls, Kibale Forest, Kaiso-Toonya Game Reserves and; Budongo and Bugoma forest reserves. Over 99% of the forests are under Central Forest Reserves.

Vegetation is majorly savannah grassland with intermittent tropical forest cover of Budongo, Bugoma and Kibaale. The soils are generally clay loam and sandy loam over most parts of the region.

The main livelihood activities are livestock keeping, food & cash crop growing, trade and tourism services. The main crops grown are coffee, cassava, irish potatoes, bananas, fish, rice, maize, sweet potatoes, tea, cotton, legumes, pulses, cocoa, tobacco, sugar cane. Other activities include mining (cobalt, copper, cement, oil, limestone) and sale of timber and other forest products. There are mineral development activities which include oil/gas exploration, limestone, gold, pozzolana mining, cobalt and copper.

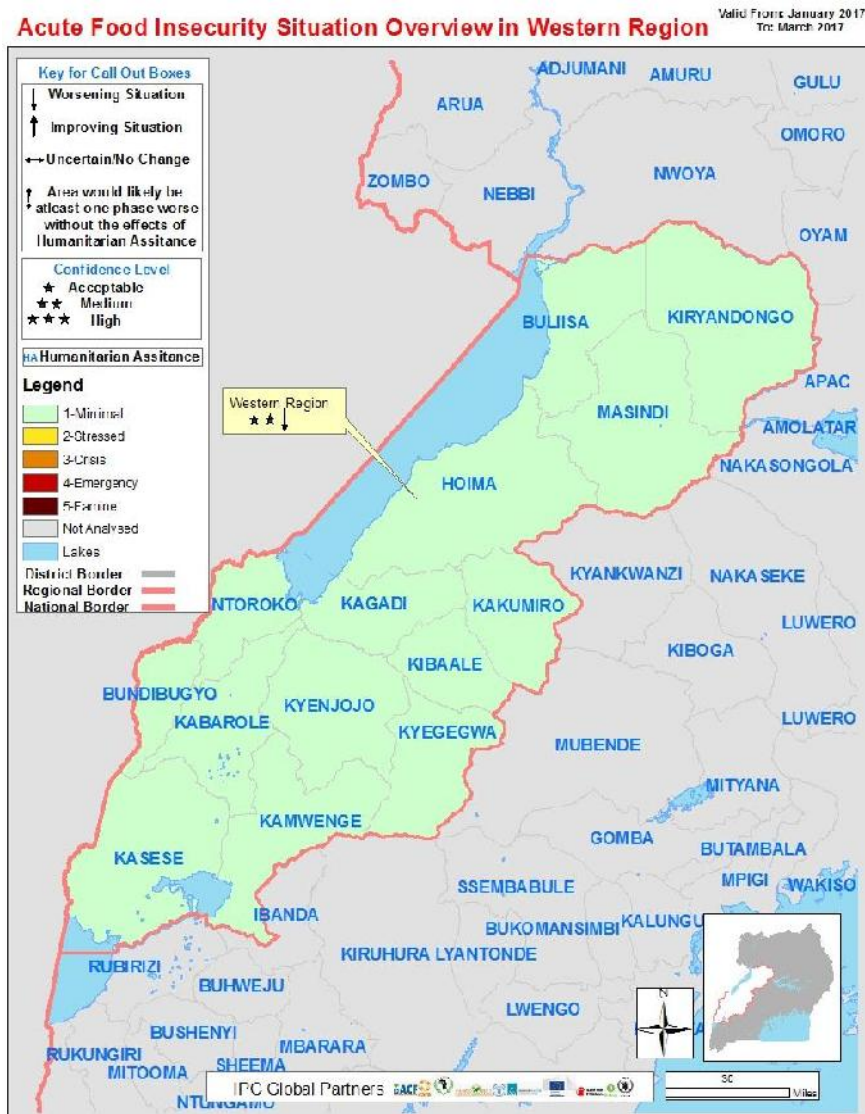
The region largely receives a bi-modal type of rainfall. The normal average rainfall in the region is 1 200mm. However, according to remote sensing (FEWSNET), mean cumulative rainfall is 1 000 mm while current cumulative (Jul 2015 to Jun 2016) is 1,120mm indicating slightly above average rainfall. The rains for 2<sup>nd</sup> season (July-December 2016) returned rather late as was indicated in the forecasts that predicted La nina conditions. The 2<sup>nd</sup> rains equally started diminishing earlier than usual during the month of November and ended when some crops were not yet well established. All these were indications of stress to the cropping and livestock systems in the region.

### 2.10.2 Overall phase and justification

Phase	Current Situation [Confidence Level for Overall Analysis: 2 ]			Projected situation [Confidence Level for Overall Analysis: 1]		
	Estimated population	% of total population	Justification	Estimated population	% of total population	Justification
Phase 1	4,039,730	82%	About 95% of the households are consuming 2 or more meals a day with a good dietary diversity score. Over 80% of the population is able to have over 4 food groups in seven day recall period and there are no signs of deterioration in the number of food groups as food is readily available and they can access it.	80%	3941,200	2% of the population is expected to slip into phase 2
Phase 2	886,770	18%	Only 5% of the households are consuming less than 2 meals a day. However, over 17% of the population are employing insurance food coping strategies to avert the unusual food shortages arising out of inability to purchase some essential food items from the market. The recent price increases and the reducing household incomes implies that purchasing power of the more vulnerable population is greatly affected.	20%	98,500	Increase in proportion of stressed population due to projected price increases that will affect food access



**Figure 14: IPC map for Western region (January-March, 2017)**



### 2.10.3 Hazards and vulnerability

There were many hazards that affected food security in the region which included ethnic clashes, delayed and early cessation of rains, outbreak of pests and diseases, illegal fishing activities and rampant wild fires. The most important hazard was delayed and early cessation of rains.

**Ethnic clashes:** More recently, the resettlement of Basongora pastoralists in Kicwamba sub county in Kaseke District has led to significant reduction of maize production and availability in that sub-county. The ethnic clashes in Bundibugyo and Kaseke purportedly over land have made investing in crop production uncertain. Populations were temporarily displaced into camps for up to 4 months in Bundibugyo. This greatly affected cropping and hence the current food shortages in most parts of Bundibugyo District.

**Refugee movements:** The uncontrolled and unmonitored movement of Sudanese and Congolese into Kiryandongo and Bulisa respectively increases pressure on available food stocks and causes artificial price hikes. Besides, there are already settlers from Bududa in Kiryandongo.



**Erratic rains:** There were variations and erratic on-set and cessation of rains which made the weather unpredictable and unreliable, grossly affecting the timing of agricultural activities. In some instances, rains were timely, farmers planted early but at crop establishment rains disappeared leading to loss of the crop. In other instances, rains started late at critical stages of crop growth.

**Crop and livestock pests and diseases:** Unfavorable weather conditions (high temperature and high humidity) and mono-cropping of maize encouraged plant/animal pests and diseases. The misuse and concoctions of agrochemicals have led to resistance of pests and diseases as in case of ticks in livestock.

**Drop on fish catches in the region:** There has been a reduction of 20-40% in the fish catches in Kasese and Bulisa districts which can be attributed to increasing fishing pressure due to increased demand for fish and fish products and the use of illegal fishing gears and methods. There is no evidence of water poisoning due to environmental factors on the water bodies in the region.

#### **2.10.4 Food Availability**

**Crop production:** Second season rainfall was below average and erratic. Farmers planted the normal acreages as in past seasons but performance in terms of yield varied across districts registering a loss in the range of 20-40% across the region. Yield reduction was attributed to delayed and early cessation of rains which were below normal. In addition, there was sporadic outbreak of maize stalk borers which caused loss of up to 2 640 acres of maize in Masindi. Delayed and below normal rains were experienced in Kiryandongo, Bulisa, Ntoroko, and Kasese and had early cessation. In addition, there were sporadic outbreaks of pests in Kiryandongo particularly Kigumba subcounty, where about 260 acres of maize were lost

Harvesting of maize started in January 2017. Sweet potato planting started in late November and is still ongoing in some districts. Cassava piece meal harvesting and cassava crop planted in the first season 2016 is yet to mature. These are stocks that should provide food for the next 6 months. There is still surplus food, although it is lower than that realized in 2015. Staples from surplus-producing areas are being supplied to areas that had below average production. The challenge to this however still remains the unmonitored and uncontrolled marketing of agricultural produce. Resettlement of Basongora pastoralists in Kasese District has led to significant reduction of maize production and availability.

**Livestock production:** Much as livestock populations in the various districts of the region remained stable over the years, currently, livestock health has been affected by out breaks of foot and mouth disease especially in Bulisa and Kiryandongo. Water for production is a major limiting factor as the major water points are drying up. Virtually all the pasture has dried and wild fires are a big threat during the dry spell. Under the circumstances, pastoralists particularly those in the cattle corridor may be advised to sell some of the livestock to reduce on the numbers.

**Fish production:** Fisheries activities are important in the region where capture fisheries is practiced. Although aquaculture is steadily on the increase, it has only gained significance in Bundibugyo and Kasese. Monthly fish catches reduced by 98.82Mt from June 2016 to December 2016. It is evident that there has been a reduction in the catches which is attributed to increased pressure on water bodies and use of illegal fishing gears and methods.

Overall food availability in the region is lower than normal as crop production, livestock and fish catches were drastically affected by unfavorable weather conditions during the last season. However, households in

the region still have stocks for atleast 3months. There will be continued reduction of food stocks as business entities continue buying available food reserves. Therefore, the rate of sale of produce needs to be checked as food stocks will quickly be depleted resulting in scarcity and high food commodity prices. Livestock body conditions are most likely to reduce in the next three months due to scarcity of water and pasture. Continued reduction in fish catches due to increased pressure, illegal practices and prevailing weather conditions are expected to affect fisheries production.

### **2.10.5 Food access**

**Food Prices:** Most of the food is locally produced but some is purchased from local markets. Generally, prices of crop and livestock products have been stable over a long period until recently when there has been increased demand from external markets. This has been attributed to an influx of business men and traders from South Sudan and Kenya who came to Kiryandongo and Masindi in search of maize. This has led to a 70% increase in the price of maize from Shs. 700 to Shs 1,200 per kilo. In addition, some Rwandese have established buying centers for cassava chips in Masindi which has led to a 100% increase in price from shs 500 to 1000 per kilo. In Kasese, owing to the poor harvest of maize, the price has increased by 100%. Beans in the same area have also doubled with price increasing from Shs 1 200 to 2 500. The prices of the processed products i.e. flour maize and cassava crops which are consumed locally have not changed. Livestock prices in Buliisa have increased by about 50 % from Shs 800,000 to Shs 1,200,000. This increase is attributed to demand from external buyers of Apac, Lira and South Sudan. In other parts of the region, prices have remained stable. Livestock products, milk and ghee prices have increased slightly in Masindi and Kiryandongo from Shs 1 000 to Shs 1 200 per litre and from Shs 5 000 to Shs 10 000 per Kg which has been attributed to reduction in yield

**Income and expenditure:** People derive income mainly from crop farming, livestock, fishing, petty trade and casual labour. On average across all districts in the region 25% is spent on food while 75% is spent on non-food items or expenditure. Because of low food production and high food prices it is difficult for part of the population to meet the daily food requirements. Since the next 3 months are not production months it is expected that prices will continue increasing.

### **2.10.6 Food Utilization**

The average distance to the nearest health centers is 3-5km, however, the lack of drugs, equipment and skilled health workers is a big challenge in the region. Malaria prevalence in the region is 23%, while diarrhea is at 1.5% in children. Water access is 66%, safe water access is 31% and latrine coverage is 71%. Food Utilization is generally good with above average access to water and latrine coverage.

### **2.10.7 Stability**

The region receives bimodal rainfall patterns with peaks in May and October, for the first and second season respectively which makes it possible to realize crop production twice in a year. However the weather pattern in 2016 was unpredictable. According to the normal cropping calendar, second season rains should start in July, however during the last season (July- December 2016) on-set of rains extended to the month of September which led to poor crop performance and poor yields. As a result, the food stocks held at household level are lower than normal. It is difficult to determine how much food is available as most of the stocks are under control by business entities who are buying directly from farmers at harvest or even before. High prices for different food items is making it difficult for part of the population to be able to meet the daily dietary requirements. There is high likelihood of food shortage in the region in the next three months if the movement of food out of the region continues.

### **2.10.8 Food Consumption**

**Dietary diversity:** The region is generally rich in the diversity of food groups consumed from own production or bought from the markets. They include dairy and beef products, fruits and vegetables, root crops (starchy), plantains, cereals, pulses and fish. However, the consumption of the foods is by cultural preferences. For example in Kasese, Bulisa, Kiryandongo, Bundibugyo, Ntoroko and parts of Masindi, the consumption of baked cassava and maize are dominant at all meals. The pastoral communities in the region consider milk and yoghurt as their major food while other foods are just supplementary.

**Meal frequency:** The main meals consumed are lunch and supper. Breakfast is usually a simple combination of dry tea or porridge with accompaniments of food left over from the evening meal. Currently 60-65% of the households have three meals and 30-35% take two meals. Only a few (10%) isolated cases of households take one meal a day as a result of food shortage. Children are fed on the same foods consumed by adults.

### **2.10.9 Livelihood change**

Generally, no major livelihood change was observed, however part of the population in Buliisa were seen to be engaged in theft of food, to supplement their food stocks. 35% of the population are employing the reduction of meals as a means of coping. The coping strategies commonly applied include resorting to less preferred and less expensive food; reduce number of times to eat food; relying on dried food from stores and consuming seed stock. Income coping strategies include the sale of labour, resorting to petty trade and charcoal burning and firewood collection.

### **2.10.10 Nutritional status and Mortality**

Severe Acute Malnutrition (SAM) is at 1% while Moderate Acute Malnutrition (MAM) is 2%. A GAM of 3% for the region which is a phase 1 situation.

Infant Mortality rates: 0.3/10,000 deaths occurring atleast 4 weeks after delivery especially in Buliisa. Under 5 Mortality Rate (U5MR) is estimated at 1.2/10,000 deaths mostly attributed to malaria and anemia especially in Buliisa.

### **2.10.11 Constraints to production in second season**

1. Erratic rains coupled with delayed onset and early cessation made the timing of routine production activities difficult.
2. Limited extension coverage: restructuring on NAADS left virtually all districts without extension services and the recruitment has taken long to accomplish. Facilitation of extension workers is inadequate to enable them undertake their critical role of guiding farmers.
3. Adulterated agro inputs: especially fake seeds and chemicals resulting in poor germination of seed and poor performance of agrochemicals and increased resistance of pests.
4. Use of rudimentary practices in production
5. Plant and animal pests and disease outbreaks brought about by the culture of mono cropping has led to buildup of pests and diseases such as maize stock borer in maize growing areas.
6. Reduction in soil fertility: over the years, farmers have been using same pieces of land which has led to depletion of nutrients from the soil. This has been aggravated by land fragmentation especially in high population density areas of Kasese and Bundibugyo

### 2.10.12 Risk factors to monitor

- i. Indiscriminate sale of food reserves by farmers to outside markets (January-March 2017)
- ii. Wild fires normally expected between January – March 2017
- iii. Disease prevalence in plants and livestock such as BBW in plants and FMD in livestock during months of January – March 2017
- iv. Availability of water for livestock and domestic use during months of Jan – March 2017
- v. Human disease prevalence e.g malaria during months of Jan – March 2017
- vi. Food prices during months of Jan – March 2017
- vii. Cattle movements during months of Jan – March 2017
- viii. Availability of pasture for livestock during months of Jan – March 2017.

### 2.10.12 Recommendations

- i. Monitoring of available food stocks and taking affirmative action on marketing of food
- ii. Institute community bye laws and regulations on food security
- iii. Agencies responsible for input distribution to ensure quick delivery of inputs to enable farmers plant at onset of rains.
- iv. Desilt and establish valley dams in the cattle corridor

## 2.11 WEST NILE REGION

### 2.11.1 Description of the area

Adjumani, Arua, Koboko, Maracha, Moyo, Nebbi, Yumbe and Zombo are the districts of West Nile Region, which has a total population of 2,814,000 people. The region shares borders with the Acholi region to the East, Democratic Republic of Congo (DRC) to the West, South Sudan to the North and Bunyoro region to the South. The main economic activities in the region are Agriculture (crop farming and livestock keeping), fishing and trading in various commodities. There is also cross border trade with South Sudan and Democratic Republic of Congo for mainly manufactured items, food produce, transport items and IT services.

The region lies between 4 livelihood zones namely;

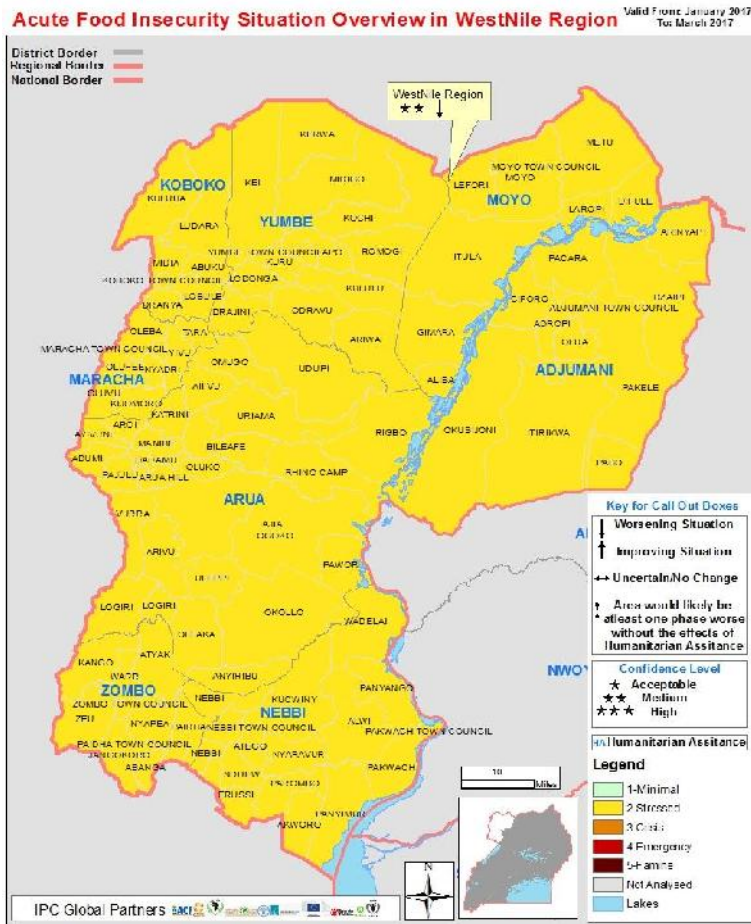
- **Arabica coffee – banana zone** (Arua – Vurra , Logiri and Pajulu), Zombo (entire district).
- **Albertine Low land cattle zone** (in **Arua**- 20% of each of Rigbo, Rhino camp, Ogoko, Pawor, Okollo, Ajia and Anyiribu in **Yumbe** – 60% Ariwa, 15% Kululu, 20% Kochi and 15% Romogi), **Adjumani** – 5% Okusijoni, 5% Ciforo, 15% Pachara, 15% Dzaipi, 5% Arinyapi, and Moyo district has Dufile, Laropi, Itula, Gimara, and Aliba sub counties that lie along the Nile valley and Nebbi District has Pakwach Town council, Parombo, Panyimru lie along the Nile. Zombo, Koboko and Maracha do not lie along the Albertine valley.
- **Tobacco, cassava, sorghum zone** i.e is the mid plateau (Arua 50% of Terego, Ayivu, Arivu, Ajia and Offaka sub counties. Yumbe (Drajini, Lodonga and Kei), Entire Maracha and Koboko districts), parts of Nebbi and zombo districts.
- **Simsim, sorghum livestock zone** (Arua 80% of Rigbo, Rhino camp, Odupi, Ajia, Ogoko, Omugo, Bileafe, Uriama and Pawor and for Yumbe – 50-60% of Drajini, Lodonga and Kei, and 100% of the rest of the sub counties), Entire Adjumani, over 60% of Moyo district. 50 % of Koboko district.
- **Fishing communities** (Arua- River Nile, Nebbi –River Nile and Lake Albert, Yumbe-River Nile, Moyo-River Nile, Adjumani-River Nile). Maracha, Koboko and Zombo do not have access directly to River Nile.

West Nile region receives bimodal rainfall and has a bimodal production calendar (March –June is first season & July – November is second season). The first season rainfall began in late April- mid May 2016. A dry spell was experienced in mid May up to end of June. The highest maximum temperature of 32 degrees and the highest daily maximum of 34 degrees was recorded at Wadelai in Nebbi district.

### 2.11.2 Overall phase and justification

Phase	Current Situation [Confidence Level for Overall Analysis: 2 ]			Projected situation [Confidence Level for Overall Analysis: 2 ]		
	Estimated population	% of total population	Justification	Estimated population	% of total population	Justification
Phase 1	1,772,820	63	Half of the population (55%) of the households have three meals a day while 30% have 2 meals; 41% are not employing any coping strategy	1,689,360	60%	The population that are food secure are expected to reduce in the next 3 months as some people will slip into phase 2.
Phase 2	1,041,180	37	15% have 1 a day. 54 - 59% of the population are employing insurance/ reversible coping strategies.	416,472	40%	It is projected that the percentage of the population of households having reduced meals from 2-1 is likely to increase in the next three months due to food shortage and prolonged dry spell Reduction of food stocks is likely to affect the nutritional status of children leading to increased rates of malnutrition.

**Figure 15: IPC map for West Nile region (January-March, 2017)**



**2.11. 3 Hotspots**

District	Sub county
Arua	Rhino camp
	Ureama
Yumbe	BidiBidi
	Ariwa
	Odravu
	Ramogi
Adjumani	Pakelle
	Dzaipi
	Pachara
	Ciforo
	Ukusijoni
	Ofua
	Hirikwa
Koboko	Lobile
Moyo	Hula
	Palorinya
	Obongi
	Lefori

#### **2.11.4 Hazards and Vulnerability**

The region has suffered a number of hazards which have generally affected the livelihoods of the communities in the region leading to reduced income levels, and reduced food production making them more vulnerable to food insecurity.

**Influx of Refugees:** The overwhelming influx of refugees from South Sudan and Democratic Republic of Congo has disrupted the livelihoods of the hosting communities as social services become inadequate to cater for the large number of displaced people being settled. This has put pressure on the little available food in the communities since UN and its agencies provide both food aid and cash for food to support the food requirements of the refugees. The presence of the refugees' settlements/ camps has created opportunity for sale of community labour for cash which has deprived the region of agricultural labour force. Land and border conflicts have been reported between the districts of Amuru and Adjumani, Yumbe, Arua, Moyo and South Sudan. For the cross boarder conflicts, there have been negotiations between the Ugandan government and South Sudan thus reducing the conflicts but the internal boarder conflicts still remain a challenge and therefore, its projected that production and productivity will still be low affecting livelihoods of the communities in these conflict areas thus rendering them more vulnerable.

**Invasion of water weeds on the River Nile:** Other hazards include invasion of water weeds (water hyacinth and Kariba weed) on River Nile which have greatly reduced the fishing activities in the districts.

**Livestock pests and diseases:** Livestock Diseases are prevalent and have lead to reduction in livestock. Outbreak of diseases such as Black quarter, and Tick borne diseases like Trypanosomiasis have been reported and have led to reduction in livestock numbers. Since the government through the District Local Governments is currently conducting vaccination drives for livestock disease control and prevention it is expected that disease incidence will reduce, but this will only hold if there is control of livestock movements for livestock brought in by the refugees from South Sudan.

**Crop pests and disease:** Farmers in the sub region also registered crop loss due to crop pests and diseases. The major pests and diseases included the Cassava Brown Streak, White flies, Fruit flies, Banana Weevils, Banana Bacterial Wilt. There has also been general destruction of crops by grasshoppers. Though several by-laws have been put in place to manage crop disease outbreaks and also movement of crops, implementation of the by-laws has not taken place and this therefore will further lead to further spread of disease in the sub region.

**Weather conditions:** Unpredictable weather conditions and natural disasters (prolonged droughts, excessive rains in some periods and floods and hail storms) have disrupted the livelihoods of some communities in the region. Increased deforestation for charcoal burning, refugee influx and bush burning in the region, the prolonged dry spell and other effects of climate change (floods, hail storms, pests and diseases) are expected to persist.

**Human disease:** Due to population movements in the region diseases such as malaria are highly prevalent (94.7%) for children under 5 while the adults a 35% prevalence is registered. Acute Watery Diarrhea is at 17.7% in children while for adults it is at 2.5%. The prevalence of malaria in the region is expected to reduce since there has been a national drive on distribution of mosquito nets and strengthening the activities of the VHT's.

### **2.11.5 Food Availability**

#### **i. Crop production**

Due to inadequate rainfall in the region, there was low production of crops registered. Tubers (cassava and sweet potatoes) performed relatively well (normally) despite the erratic and harsh climatic conditions in the year. Cereals and pulses performed worse than normal. The yield performance was 40 percent below normal. Most affected were the cereals and pulses leading to low yields and household food stocks. This coupled with the influx of refugees increased demand on the local food stocks. The various interventions by the UNHCR and other international partners in providing food aid and cash for food has increased demand for local food produced hence depleting the local food reserves. Thus stocks at household level can only meet food needs for up to 2 months from the time of the assessment. The food stock in the region is projected to continue reducing and households will exhaust all their food sources and resort to other coping strategies such as having a meal per day, charcoal burning etc.

The local food stocks have also been affected negatively by the wildlife invasion (Elephants from South Sudan National parks). The wild life invasion have significantly affected food stocks and farming in the districts of Adjumani (Arinyapi and Dzaipi sub counties) and Moyo ( Dufile sub county).

#### **ii. Livestock and fish production**

Livestock population has remained generally static, water for livestock has increasingly become a challenge as many water bodies have dried up. Pasture shortages have also been aggravated by bush burning across the region. This together with livestock pests and disease have affected livestock production. There has been a general decline in fish catches over the last six months in the region. The catch for the major species, Nile Perch and Tilapia has dropped by about 50% over a six month period while other fish species have dropped by about 20%.

### **2.11.6 Food Access**

Arua district registered the highest Annual Inflation of 8.5 percent for the year ending December 2016 compared to 6.8 percent recorded for the year ended November 2016. This was driven by high Annual Inflation for Food and Non-Alcoholic Beverages that registered an increase of 13.2 per cent for the year ending December 2016 compared to 9.4 percent recorded in November 2016. There is an influx of refugees in the region which has led to the increased demand and higher prices of food. Main food sources are from own production, however, foods produced from within the region are scarce in the markets. The prices in the region are expected to remain high because of the constant influx of refugees and food export to neighboring countries of Congo and South Sudan. It is projected that in the next two months food items in the local markets will be scarce forcing households to move longer distances in search of food. Many household purchasing power is likely to reduce before the first planting rains begins.

### **2.11.7 Food Utilization**

Beans, cassava, sorghum and sweet potatoes are the staple foods mainly consumed in the region. About 85% of all food produced by households is consumed. On average majority of the households use wood fuel and the three stone fire place for cooking, while in the urban areas improved cooking stoves are used. Some commonly practiced food preparation methods like fermentation of cassava and boiling of food lead to loss of 10% of the food nutrients. Most of the community store food in their houses and about 5% is lost to vermin and contaminated with foreign bodies.

Child care practices in the region are generally poor. Most of the mothers (60 – 65%) move out for work and leave the child in the hands of young girls and boys.



On average the access to water in the region is 79.6% while access to safe clean water is 43.5%. Average distance to water sources is between 3 – 5kms from the households. Most safe clean water is accessed during rainy season. During rainy seasons the average price for 20 liters of water ranges from UGX. 200 – 500/- while during dry season 20 liters jerrican goes for 1500-2,000/- in urban areas. On average the region has 80.7% latrine coverage.

#### **2.11.8 Stability**

There is little food available for the households which can last for 1-2 months but there is the element of poor utilization of the food.

#### **2.11.9 Food consumption**

About half of the population (55%) can afford to have three meals a day while 30% of the population have 2 meals and 15% have 1 a day. It is projected that the percentage of the population of households having reduced meals from 2-1 is likely to increase in the next three months due to anticipated food shortage.

#### **2.11.10 Livelihood Change**

41% are not employing any coping strategy, while 54 - 59% of the population are employing insurance/ reversible coping strategies. The common coping strategies include: reduction in the numbers and quality of meals, eating non-conventional food/ nonpoisonous plants, hunting for wild game, harvesting Wild Honey and farming vegetables, early maturing cereals and pulses in wetlands during dry season.

Other strategies that are increasingly becoming common include the selling of crops and small ruminants and chicken to buy food; selling labor to raise income for food and other household needs and buying food stock from places that have plenty including the DRC.

#### **2.11.11 Nutritional Status**

It is expected that the current food security situation especially due to reduction of food stock is likely to affect the nutritional status of children leading to increased rates of malnutrition. More information on prevalent GAM rates and other nutritional indicators is needed to confirm the situation.

#### **2.11.12 Risk factors to monitor**

- i. Population movements across the border with South Sudan and Congo
- ii. Weather condition from february to March when rains are expected to start
- iii. Pests and diseases; and also human diseases, particularly malaria

#### **2.11.13 Recommendations**

- i. Support establishment of irrigation schemes that are solar powered to improve food production
- ii. Support afforestation of degraded areas.

## **CHAPTER 3**

### **SCENARIO BUILDING FEBRUARY TO MAY 2017**

#### **3.1 Key assumptions in building scenarios**

##### **3.1.1 Bi-modal areas**

- It is assumed the first season rains, March-May will commence on time (early March) and be average in terms of cumulative rainfall;
- It is expected that prices for staple commodities will remain higher than last year during the same time and likely to be fairly stable until arrival of first season harvest in late May;
- In Bi-modal areas, it is assumed that first season production will be average and expected to replenish households and market food stocks by July;
- Increased food availability with the start of green harvest is likely to start in late May into June for the food gaps to be alleviated;
- Pasture and water availability are expected to remain below average until April when any improvements in pasture re-growth and when water sources begin to restore.

##### **3.1.2 Karamoja**

- For Karamoja region, land preparation and other seasonal activities are likely to start in March and improvement in pasture and water resources are expected in April with the start of seasonal rains;
- It is assumed that the available foods from the previous season will be exhausted by February, some poor households that received minimal or no harvests are already undergoing an early lean season;
- The prices of staple foods are already increasing and it is expected that they will remain high compared to the same time last year which will result to unfavorable Terms of Trade for accessing cereals with respect to charcoal/firewood, wages and livestock. Prices of livestock are likely to decline with increased volume of sales in April through May due to increased supply and poor condition of animals;
- The acute malnutrition among children is likely to be high but within typical levels during the lean season with prolonged inadequate food consumption;
- Typically, green harvest consumption is likely to start in July/August resulting to decreased reliance on the markets for food stocks;
- It is expected that staple prices will begin to decline following harvest in Karamoja region and also increased supply from neighboring districts coming into Karamoja region;

#### **3.2 Projections**

##### **3.2.1 Bi-modal areas**

Following below average harvest from second season, inadequate food stocks at household level have resulted into a large proportion of the population to experience stressed (IPC Phase 2) food insecurity while some hot-spots are already experiencing crisis (IPC Phase 3) food insecurity outcome. With limited food stocks and none at all for some households that did not harvest anything, market purchase is expected to continue to be the main source of food through May-June. Due to below average seasonal incomes for the poor and very poor households, their purchasing power is constrained and will not be able to access food through the markets for through May. While high prices have been beneficial to farmers that had near normal harvest, traders are likely to hoard purchased stocks and offer them on the markets at higher prices during scarce times, further constraining food access for the poor. Agricultural labour opportunities are likely to be available in March

with the start of seasonal rains but incomes from this source are not likely to improve food access significantly. Improved food availability is expected at household level in May with the start of green consumption. This together with increased stocks at market levels, following the bulk of the harvest in July, prices of staple commodities are likely to seasonally decline and improve access for both urban and rural populations that rely on the markets. The incomes from perennial crops like coffee, tea and bananas are expected to be average in the later part of season as they recover from last season poor rainfall conditions. However, poor households in food insecurity hotspots are likely not to have seed for the next season or have the ability to purchase it from the market. It's likely that they may not plant the usual acreage which may lead to prolonged food shortage.

Currently, pasture conditions and water availability is below average especially in the cattle corridor district and any improvement is expected in April going forward with the start of first seasonal rains. It is expected that the livestock body condition and milk production levels will decline until late April with regeneration of pastures and restoration of water sources. Some atypical livestock migrations from the areas of Kiboga, Kyankwanzi and Gomba to Northern and West Nile regions in search for pastures and water are denying households access to milk and other animal products. Livestock are expected to continue walking long distances to watering points which reduces production.

The rainfall variability during the last season resulted in below average water availability while the prolonged dry conditions have dried out the available sources faster than usual. Households in many areas are fetching water from distant sources and water utilization per household for food preparation and hygiene is expected to continue to decline. This is likely to lead to disease exposure arising out of poor hygiene and sanitation. Improved water availability is expected in March with the start of seasonal rains.

The current food insecurity levels are expected to deteriorate slightly with some households currently in Minimal (IPC Phase 1) slipping into stressed (IPC Phase 2) while those stressed (IPC Phase 2) will slip into crisis (IPC Phase 3).

### **3.2.2 Karamoja**

Some poor and very poor households in Karamoja regions are already experiencing an early lean season start. This was due to the below average harvest and hence early exhaustion of last season harvest as well as excessive sale of harvests especially in Kotido, Kaabong and Nakapiripirit. Prices of staple foods have been increasing since October 2016 causing unfavorable Terms of Trade with respect to firewood/charcoal, agricultural wage and livestock. Households will continue to employ coping strategies as selling more firewood/charcoal; consume less preferred foods; reducing quantity and frequency of meals to at least one meal per day; and more consumption wild foods. Even with employment of more coping mechanisms, poor households will not be able to access their minimum food intake requirements. Due to persistent minimum food intake and low dietary diversity, acute malnutrition levels are likely to increase. This situation is likely to be aggravated by poor quantity and quality of water that is available for household consumption.

With the assumption that rainfall season will start normally (mid-March into April), pasture and water availability is likely to begin to improve in early April prompting the return of livestock from dry season grazing areas. While this is expected to improve access to milk and other animal products, the poor households that do not own livestock will not have improved access. The middle and better off households are likely to increase sale of livestock during the peak of the lean season through May and June.

The food security outcomes in Karamoja are likely to deteriorate further through June owing to the consecutive longer than usual lean period that has stretched the coping ability of poor households. Without

food assistance, the majority of the households will remain stressed while some in stressed (IPC Phase 2) will transition to crisis (IPC Phase 3).

## ANNEX 1: List of Regions and districts

Central I	East Central	Teso	Kampala	Acholi	Lango	South West	Western	West Nile
Bukomansimbi	Bugiri	Amuria	Kampala	Agago	Alebtong	Buhweju	Buliisa	Adjumani
Butambala	Buyende	Bukedea		Amuru Gulu / Omoro	Amolatar	Bushenyi	Bundibugyo	Arua
Buvuma	Iganga	Kaberamaido		Kitgum	Apac	Ibanda	Hoima	Koboko
Gomba	Jinja	Katakwi		Lamwo	Dokolo	Isingiro	Kabarole	Maracha
Kalungu	Kaliro	Kumi		Nwoya	Kole	Kabale	Kagadi	Moyo
Kiboga	Kamuli	Ngora		Omoro	Lira	Kanungu	Kakumiro	Nebbi
Kyankwanzi	Luuka	Serere		Pader	Otuke	Kiruhura	Kamwenge	Yumbe
Luwero	Mayuge	Soroti			Oyam	Kisoro	Kasese	Zombo
Lwengo	Namayingo					Mbarara	Kibaale	
Lyantonde	Namutumba					Mitooma	Kiryandongo	
Masaka						Ntungamo	Kyegegwa	
Mityana						Rubanda	Kyenjojo	
Mubende	<b>Elgon</b>		<b>Karamoja</b>			Rubirizi	Masindi	
Nakaseke	Budaka		Abim			Rukungiri	Ntoroko	
Nakasongola	Bududa		Amudat			Sheema		
Rakai	Bukwo		Kaabong					
Ssembabule	Bulambuli		Kotido					
	Busia		Moroto					
	Butaleja		Nakapiripirit					
<b>Central II</b>	Kapchorwa		Napak					
Buikwe	Kibuku							
Buvuma	Kween							
Kayunga	Manafwa							
Mpigi	Mbale							
Mukono	Pallisa							
Wakiso	Sironko							
Kalangala	Tororo							

## Annex II: LIST OF PARTICIPANTS

### I. Regional FS compilation workshop (January 9<sup>th</sup> – 13<sup>th</sup>, 2017)

	NAME	TITLE/ DISTRICT
1	Martin Owor	CRDP&M/OPM
2	Rose Nakabugo	AC/DM/OPM
3	Catherine Ahimbisibwe	PDMO/OPM
4	Charles Kumakech	DMO/OPM
5	Raymond Kirungi	DPO/OPM
6	Immaculate Nyangoma	DPO/OPM
7	Jacqueline Kagoda	DMO/OPM
8	Martin Odong	DMO/OPM
9	Dr. Ssekawojwa Edward	Ag. DPO/Lyantonde
10	Abal Peter	DPO/Kitgum
11	Kisaakye David Fred	DPO/Namutumba
12	Kaahwa Robert Mbabazi	DPO/Buliisa
13	Anthony Mugenyi	DPO/Adjumani
14	Mirembe Rebecca Gumisiriza	Ag. DPMO/Jinja
15	Anyuru Thomas	DPMO/Otuke
16	Ayo Julius Peter	DAO/Mbale
17	Mwebesa Beda	DPO/Kabale
18	Musenero Richard	DPMO/Kamuli
19	Kanyike Muhammed	DAO/Rakai
20	Kawooya Kalungi Emmanuel	DPO/Sembabule
21	Opio Robert Louis Oluge	DPMO/Lira
22	Kisaakye Fredrick William	DAO/Mubende
23	Kitaka Gerald	DPO/Nakasongola
24	Bishaka Edmund	DPO/Bundibugyo
25	Kabbale Fredrick George	DPO/Buyende
26	Ssekanwagi George	DPO/Bukomansimbi
27	Musunga David	DPO/Bulambuli
28	Dratele Chistopher	DPO/Moyo
29	Bacia Keziah	DPO/Lwengo
30	Kiyemba Paul	DPO/Kalungu
31	Baineomugisha David	DPMO/Bushenyi
32	Mega Wilfred	DPMO/Apac
33	Lakor Jackson	DPMO/Gulu
34	Ssebbaale Edrisa	DPO/Nakaseke
35	Okware Patrick	DPO/Tororo
36	Ssebulime Godfrey	DAO/Kyankwanzi
37	Bazalaki Sully Nantatya	DAO/Iganga
38	Opira Wilfred	DVO/Nwoya
39	Wakapisi	DPO/Busia

40	Baluku Julius	DPO/Kasese
41	Byabakama Blasto	DPMO/Masindi
42	Sebabi William	DAO/Gomba
43	Dr. Mwebembezi William	DPO/Mbarara
44	Sajja Samuel	DPO/Kaliro
45	Yesho Nelson Lomin	DPO/Kween
46	Apil Nelson	DPMO/Kapchorwa
47	Mugisha Francis	DPO/Kiruhura
48	Hakuza Annunciata	SE / MAAIF
49	Brian Musaga	SSP - Makerere University
50	Kalyango Steven	MAAIF
51	Naiga Stella	MAAIF
52	Tim Mateba	MOH

**II. National IPC Analysis workshop (January 16<sup>th</sup> – 20<sup>th</sup>, 2017)**

1	Nakamya Sarah	PAO/Nakasongola
2	Kalule Mbagatuzinde	AO/Luwero
3	Kityo Saul	AO/Masaka
4	Kisaakye Fredrick William	DAO/Mubende
5	Ssemenda Paul	AO/Kalangala
6	Bahizi Peninah	DAO/Kabarole
7	Kaija Catherine	DAO/Hoima
8	Babihemaiso Doreen	Ag. DAO/Buliisa
9	Namutosi Fatuma	AO/Mbale
10	Kamatei George Sabila	DVO/Kapchorwa
11	Okoboi Joseph	DAO/Pallisa
12	Opio Robert Louis Oluge	DPMO/Lira
13	Ngura Jacob	DAO/Apac
14	Ojok Tonny	DAO/Otuke
15	Lokong John Robert	Ag. DAO/Kaabong
16	Ogwang Jino	Ag. DPMO/Abim
17	Okwii Francis	DAO/Moroto
18	Kansiime Robertson	DAO/Kabale
19	Nateekateeka Charles	DAO/Kiruhura
20	Tuwesigye Patrick	DAO/Isingiro
21	Mugume John Ocran	AO/Bushenyi
22	Badaru Gertrude	DAO/Arua
23	Enyanga Faustine Obale	AO/Nebbi
24	Vuciri James Logwenya	AO/Adjumani
25	Omony Moses Okumu	AO/Nwoya
26	Dr. Otto Alfred Best	PVO/Kitgum
27	Nyeko Francis .O.	AO/Gulu
28	Odeke Valdo	DAO/Kumi
29	Emuron Joseph	AO/Katakwi

30	Kaweesa Jonathan	DAO/Mpigi
31	Bulya Ann	DAO/Kayunga
32	Kanyike Muhammed	DAO/Rakai
33	Bakalikwira Moses James	AO/Namutumba
34	Mpaulo James Felix	DAO/Kamuli
35	Hakuza Annunciata	SE / MAAIF
36	Brian Musaga	SSP - Makerere University
37	Kalyango Steven	MAAIF
38	Naiga Stella	MAAIF
39	Ssenzira Deus	MAAIF
40	Tugume Joab	MAAIF
41	Lufafa Robinson	MAAIF
42	Martin Owor	CRDP&M/OPM
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