

UGANDA Food Security Outlook

February to September 2017

Stressed (IPC Phase 2) outcomes likely to persist in bimodal areas until June harvest

KEY MESSAGES

- During the February to June lean season, very poor households in Moroto and Napak are expected to face food consumption gaps and be in Crisis (IPC Phase 3). In these areas, poorly distributed rainfall led to below-average production and very poor households depleted food stocks three months earlier than normal. Many are facing increasing difficulty purchasing sufficient food to meet their basic needs, as food prices are 30-40 percent above average. Food security is expected to improve to Stressed (IPC Phase 2) in July with the green harvest.
- In Teso, Busoga, and east-central regions of bimodal Uganda, poor households experienced two consecutive seasons of belowaverage production. Household food stocks were depleted in January, four months earlier than normal. Many are engaged in casual labor opportunities and are selling additional livestock to fund food purchases, but face atypically high food prices. Poor households are able to minimally meet their basic food needs, but lack income to afford some essential non-food needs and are Stressed (IPC Phase 2).
- Uganda now hosts over 750,000 South Sudanese refugees, the majority of whom arrived after July 2016, following the outbreak

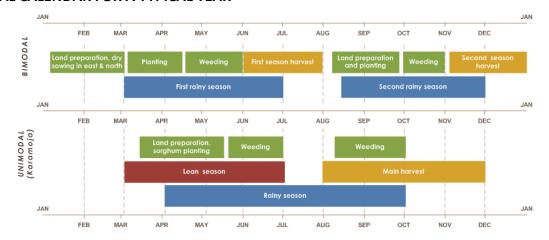
of humanitarian assistance, refugees would likely be in Crisis (IPC Phase 3).

Current food security outcomes, February 2017 IPC V2.0 Acute Food Insecurity Phase 2: Stressed 4: Emergency 5: Famine Would likely be at least one phase numanitarian assistance Parks and reserves

Source: FEWS NET This map represents acute food insecurity outcomes relevant for

emergency decision-making. It does not necessarily reflect chronic food insecurity. Visit www.fews.net/IPC for more on this of conflict in Greater Equatoria. Most refugees are heavily dependent on humanitarian assistance and are currently Stressed (IPC Phase 2!). Available funding only guarantees assistance at current levels through March, and in the absence

SEASONAL CALENDAR FOR A TYPICAL YEAR



Source: FEWS NET



NATIONAL OVERVIEW

Current Situation

Bimodal areas:

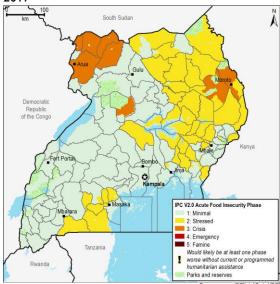
In bimodal areas of Uganda, which include all regions but Karamoja, the dry season is ongoing and conditions are hotter and drier than usual. This is the result of below-average September to November second season rainfall (Figure 1) and current above-average land surface temperatures (Figure 2). Rainfall was also below average during the March to June 2016 first season, and rainfall deficits were most significant in the north, east, and areas surrounding the Lake Victoria basin during both seasons.

Two consecutive seasons of below-average rainfall has negatively impacted both pastoral and agricultural areas. Pasture, browse, and water resources are significantly below average in the cattle corridor and livestock are atypically migrating in search of water and pasture. The longer trekking distances and limited resources have negatively impacted livestock body conditions, subsequently lowering milk production below levels that are typical of the dry season.

Poor rainfall throughout 2016 has also resulted in two consecutive seasons of below-average production in central and eastern bimodal areas. In November, before the completion of the second season harvest, FAO estimated that total cereal production in 2016 would be 3.4 million metric tons. This equates to 4 percent below average, but ground reports indicate production was likely more significantly below normal. No updated production estimate, upon completion of the second season harvest, has been provided. For poor households who rely on rain-fed production and typically cultivate small plot sizes, production losses in 2016 greatly lowered household food stocks. In a normal year, poor households produce enough cereal to meet basic household consumption needs and November-December household stocks typically last until the subsequent harvest in May/June. This year, though, rapid food security assessments conducted by FEWS NET and information from partner reports indicate that many poor households in parts of Teso, Lango, Acholi, and Busoga harvested significantly below-average cereal volumes in 2016 and depleted household food stocks in January.

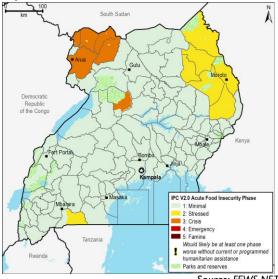
Due to below-average domestic supplies, staple food prices have increased in most markets. In Soroti of Teso, the price of cassava chips in January was 1,100 UGX/kg, approximately 10 percent above last year and 14 percent above the three-year average (Figure 3). Maize flour and sweet potato prices in Soroti saw more significant increases, between 15-20 percent above both last year and their

Projected food security outcomes, February to May 2017



Source: FEWS NET

Projected food security outcomes, June to September 2017



Source: FEWS NET

These maps represent acute food insecurity outcomes relevant for emergency decision-making, and do not necessarily reflect chronic food insecurity. Visit www.fews.net/IPC for more on this scale

three-year averages. A similar trend was observed in Iganga of Busoga, where the January price of sweet potatoes was 717 UGX/kg, approximately 29 percent above last year and 20 percent above the three-year average.

Higher than normal cereal prices have driven a decline in household purchasing power, as measured by labor-to-cereal and goat-to-cereal terms of trade (ToT). In Soroti, the labor-to-maize ToT declined 51 percent from December to January, while the labor-to-maize flour ToT declined 20 percent, larger declines than are seasonally normal. The labor-to-maize flour ToT are now 12 percent below the three-year average. Similarly, the goat-to-maize flour ToT in Soroti is 24 percent below the

three-year average. Comparable trends were seen in other bimodal areas that experienced below-average production.

Poor households in most bimodal regions are currently engaged in land preparation and dry planting, as is typical in February. However, in parts of West Nile and northern Uganda, rainfall in January and February was 10-25 mm below average, preventing timely land preparation is some areas.

Maize exports to Kenya declined atypically in the fourth quarter of 2016. This was a result of both below-average production and the subsequent price increases in Uganda that reduced price differentials with Kenyan markets, lowering traders' profits. Exports to South Sudan decreased seasonally, but total volumes traded are still higher than the same quarter last year and the three-year fourth quarter average, as high prices in South Sudan continue to incentivize traders to export to the country.

South Sudanese refugees:

Hundreds of thousands of South Sudanese have sought refuge in Uganda, the majority of whom cross the northwestern border or transit through the Democratic Republic of Congo. The current influx of refugees from South Sudan started in mid-2016 after an outbreak of violence in Juba spread to Greater Equatoria, which borders Uganda. In the first two months of 2017, over 116,000 refugees have arrived, at a rate around 2,000 a day. The newly-opened Palorinya settlement in Moyo District is already at capacity and a new settlement, Imvempi in Arua, was opened in February. All newly arrived refugees are receiving full rations through in-kind or cash/voucher assistance through the World Food Programme (WFP) and are also provided a small plot of land by the Ugandan Government. UNHCR reports that as of February 21, it has received only 10 percent of the humanitarian funds requested for the Uganda response plan, leaving a gap of 267 million USD. Due to funding constraints, refugees who arrived prior to July 2015 are now receiving half rations.

Karamoja region:

Karamoja has one rainy season annually, which occurs from April

to September. The 2016 rainy season was average to above average, although an atypically long dry period in July negatively impacted crop development. August-November 2016 production was higher than last year in all districts, but below the five-year average in all districts but Kotido, where production was average. The greatest production losses took place in Napak, Abim, and Nakapiripirit, where it is estimated that very poor households harvested between 10-50 percent of normal production. Many depleted household food stocks in December or January, two to three months earlier than normal. As a result, the lean season, which typically runs from March to June, started in January/February this year.

Rangeland conditions in Karamoja were near normal following the rainy season, although atypically high land surface temperatures and heavy inward migration of pastoralists from South Sudan and Kenya led to faster than normal depletion of pasture and water resources. With increased competition for rangeland in Karamoja, many Karamojong pastoralists have migrated livestock to neighboring Teso, Lango, and Acholi Districts.

Similar to bimodal areas, cereal prices in Karamoja are above average, driven by below-average production in Karamoja and below-average production in neighboring bimodal regions that typically source markets in Karamoja. The retail price of sorghum is between 38 and 77 percent above the three-year average across markets (Figure 4). Charcoal prices have remained largely stable compared to average in all districts but Moroto, where the retail price of a bag of charcoal is roughly

Figure 1. CHIRPS-estimated rainfall anomaly, percent of normal, Sept. 1 – Dec. 31, 2016

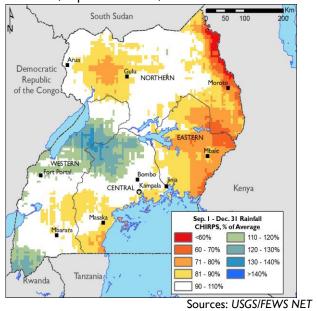
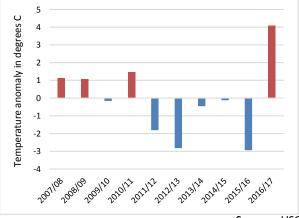


Figure 2. Land surface temperature compared to 1981-2010 average, November-January



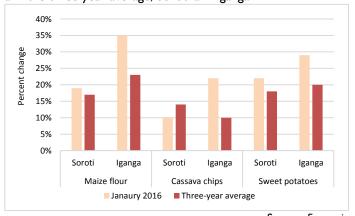
Sources: USGS

30 percent below average. However, above-average staple cereal prices have lowered household purchasing capacity. Charcoal-to-sorghum terms of trade have decreased by 15-30 percent in most markets.

Food security outcomes

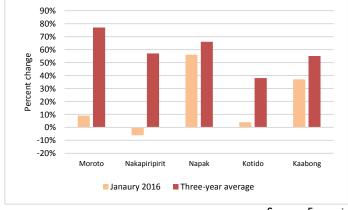
In Teso, Busoga, and east-central regions of bimodal **Uganda**, poor households experienced two consecutive seasons of below-average production. Household food stocks were depleted four months earlier than normal and households remain atypically dependent on markets to access food. Most poor households are borrowing or seeking additional labor opportunities in nearby urban centers to earn income to purchase food. However, staple cereal prices are above average, driving lower than normal labor-tocereal and goat-to-cereal ToT. Many households are eating cheaper, less preferred foods. Some households have reported being unable to pay school fees and others have increased the sale of livestock for additional income. Although most poor households are able to meet their basic food needs, many are unable to support normal livelihood activities and are Stressed (IPC Phase 2). In some areas of Isingiro and Teso, it is likely some poor households are in Crisis (IPC Phase 3) and are facing food consumption gaps or are only meeting basic food needs through the sale of land and other productive assets.

Most newly arrived refugees are heavily dependent on humanitarian assistance to meet their basic food needs. Although refugees are given plots for cultivation, those who came in the most recent wave arrived after planting for second season production. The majority left **Figure 3:** Change in staple cereal prices compared to last year and the three-year average, Soroti and Iganga



Source: Farmgain

Figure 4. Change in retial price of sorghum compared to last year and the three-year average in districts of Karamoja



Source: Farmgain

behind assets in South Sudan and lack typical access to income-earning opportunities now that they reside in the refugee settlements. It is likely most have minimally adequate food consumption with ongoing assistance, but are unable to afford essential non-food expenditures and are Stressed (IPC Phase 2!).

In Karamoja, where the lean season is ongoing, many very poor households depleted their food stocks in January and are dependent on markets to access food. Most are able to meet their basic food needs and are Stressed (IPC Phase 2), but lack income for basic non-food expenditures as higher prices are forcing them to spend more income on food. In Napak and Moroto, where production was well below average and staple food prices have increased significantly, very poor households are experiencing food consumption gaps and are in Crisis (IPC Phase 3). In these districts most very poor households are consuming one meal a day consisting mostly of cereals and wild vegetables. In Rupa and Nadunget sub-counties of Moroto, there are reports of some household members skipping daily meals and households placing children in different schools where feeding programs are offered.

Assumptions

Between February and September 2017, the projected food security outcomes are based on the following key assumptions:

- March to May first season rainfall is expected to begin on time and be near average in bimodal Uganda, with a few areas
 of slightly below normal rainfall in northeastern Uganda.
- Current above-average land surface temperatures are expected to return to normal with the onset of rains in March and remain average through September.

- June-August first season production is expected to be average and replenish household and market stocks to normal levels through September.
- Agricultural labor opportunities are expected to be available at typical wage rates from February through April.
- Pasture conditions and water resources in the cattle corridor are expected to remain below average through March due
 to above-average land surface temperatures. Conditions are likely to improve to near normal levels in April, alongside
 average seasonal rainfall. Conditions will then seasonally decline from June through September. Livestock body
 conditions and milk productivity are expected to follow the same trend.
- Livestock prices are expected to follow seasonal trends.
- Forecasts for the August to November second rainy season in bimodal Uganda and the April to September rainy season
 in Karamoja indicate rainfall is likely to be average. The February CPC/IRI consensus forecast indicates a higher than
 normal likelihood of El Niño in the third quarter of 2017, although there is currently significant uncertainty in the ENSO
 forecast. As El Niño is generally associated with a suppression of seasonal rainfall in these area areas, and there is
 increased likelihood the rainy seasons could be at least slightly below average. FEWS NET will continue to monitor the
 situation and will update its assumptions accordingly.
- Staple food prices in key markets in bimodal areas of Uganda are expected to increase seasonally through April and remain 30-40 percent above average. From May/June, when the first season harvest enters markets, prices are expected to seasonally decrease through September, but remain at least slightly above the five-year average.
- In Karamoja, staple food prices are likely to seasonally decline in July with the arrival of the green harvest in Karamoja and dry harvest in bimodal areas. Prices through September will remain slightly above average.
- In the first half of 2017, exports of maize and dry beans to Kenya, South Sudan, and Rwanda are expected to be below the same time last year and the four-year average, due to higher than normal export parity prices.
- No major outbreaks of livestock diseases that would necessitate longer quarantine periods or the closure of livestock markets are anticipated.
- Due to ongoing conflict and severe levels of acute food insecurity in South Sudan, refuge flows to Uganda are likely to continue at or above current levels of 2,000 per day. The World Food Programme's plan to provide assistance through July 2017, of full rations to all refugees who arrived after July 2015 and half rations to all who arrived before July 2015, is currently 51 percent funded. Current funding levels guarantee a continuation of assistance at these levels through March. It is not yet known if funding will be available for assistance beyond March.

Most Likely Food Security Outcomes

In bimodal areas, poor households in Teso, Busoga, and east-central regions are expected to be Stressed (IPC Phase 2) through May. Although most poor households lack food stocks, many have begun engaging in agricultural labor at normal wage rates and have income to purchase food from the markets. However, most poor households need to purchase more cereal from markets than is typical during this time and face above-average market prices. Poor households are likely to forego some typical livelihood activities or sell additional livestock in order to fund cereal purchases. Food security will improve slightly in late April/early May when households harvest some vegetables and livestock body conditions improve, increasing milk production for household consumption. In June, with the beginning of the dry harvest, household stocks and market supplies are likely to improve to normal levels, increasing household cereal consumption and supporting a decline of staple food prices. Given expected average production of both cereals and legumes and perennial crops such as tea, coffee, sugarcane, and bananas, poor households are also expected to earn near normal incomes. Although staple food prices are still likely to remain slightly higher than average through September, access to own production and normal levels of income will increase household food availability and access. These areas are expected to improve to Minimal (IPC Phase 1) in June and remain in Minimal (IPC Phase 1) through September.

South Sudanese refugees are expected to remain heavily dependent on humanitarian assistance throughout the outlook period. Own production complements food assistance but only provides 2-4 months of cereal. The majority of refugees are also likely to seek labor opportunities in host communities and some will earn income through these means. Among these, agricultural labor opportunities will be available in March. However, given the high number of refugees who will be seeking labor opportunities, it is expected that only a small percentage will be able to obtain work. which is insufficient to meet

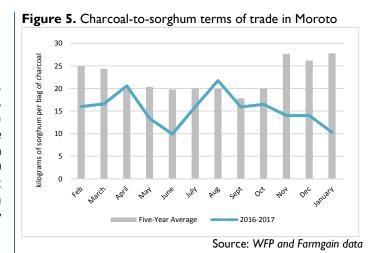
households' basic food needs. Therefore, sources of food and income outside of assistance are unlikely to meet households basic food needs. Current funding levels only guarantee continued assistance through March. It is therefore assumed that refugees will remain Stressed (IPC Phase 2!) in February and March. From April through September, refugees are expected to be in Crisis (IPC Phase 3) in the absence of humanitarian assistance.

From February through the peak of the lean season in June, very poor households are expected to engage in agricultural and casual labor opportunities at normal levels, earning income to fund cereal purchases. However, total cereal purchased will still be insufficient to meet minimal food requirements. Most very poor households will complement this consumption with wild foods and milk. Others will access additional food through borrowing. Most households will remain Stressed (IPC Phase 2), but some households in Morto and Napak are expected to face food consumption gaps during the February to June lean season and be in Crisis (IPC Phase 3). This is due to relatively higher food prices in these districts and the longer time spend coping, given that they exhausted food stocks earlier than in other areas. Expected average production in July will replenish household stocks, increasing cereal consumption and improving food security. The arrival of the harvest is also expected to lead to price decreases among staple commodities, increasing food access. Poor households will be able to minimally meet their basic food needs during this time and are expected to improve to Stressed (IPC Phase 2) from July through September.

AREAS OF CONCERN

Moroto and Napak Districts of the Central Sorghum and Livestock livelihood zone in Karamoja

This zone has an estimated population of 501,181 people and includes parts of northern Nakapiripirit, Moroto, Kotido, Napak, and Kaabong Districts. An estimated 125,258 people (29 percent) in this zone are in the very poor wealth group. The very poor wealth group in Moroto consists of approximately 22,430 people (21 percent) and in Kaabong roughly 39,432 people (22 percent). The very poor wealth group in Moroto and Kaabong is the focus of the most likely scenario from February to September 2017.



Current Situation

From a recent rapid food security assessment conducted by FEWS NET in January in the livelihood zone, it is estimated that up to 60 percent of poor households in Moroto and Nakapiripirit depleted household food stocks in the same month. Early food stock depletion is largely attributed to below-average August-November crop production, as well as atypically high crop sales in November/December to bimodal areas where the demand, and subsequently price, was above average.

Sorghum prices continue to increase in all markets in the Central Sorghum and Livestock livelihood zone with the exception of Kotido, where the price of sorghum decreased 19 percent between December 2016 and January 2017. The lowest price increase over the same time period was in Kotido, where the retail price of sorghum increased 4 percent, while the largest price increase was observed in Napak, at 56 percent. This trend is atypical, as commodity prices are typically stable between December and January. Compared to average, the largest price increases took place in Moroto and Napak, where the retail price of a kilogram of sorghum in January was 77 and 55 percent higher than their respective three-year averages.

The main income source for very poor households is the sale of charcoal and firewood. The price of a bag of charcoal has remained largely stable in Napak, but decreased by approximately 30 percent compared to average in Moroto. Although most very poor households own few livestock, and therefore do not earn a significant percentage of total income from the sale of livestock, households will occasionally sell one goat or sheep. The price of a goat has declined in both Moroto and Napak compared to average, by 27 and 21 percent, respectively.

The significant increase in sorghum prices has driven a decline in household purchasing power compared to average. In the case of Moroto, both above-average sorghum prices and below-average charcoal prices are driving the deterioration in ToT. In January 2017, a sale of a bag of charcoal bought roughly 10 kilograms of sorghum in Moroto, 50 percent below average

(Figure 5). In the same month, the sale of a bag of a bag of charcoal in Napak bought approximately 22 kilograms of sorghum, 26 percent lower than normal. Although less indicative of household purchasing power, the combination of below-average goat prices and above-average sorghum prices is also driving lower than normal goat-to-sorghum ToT.

Pasture conditions and water availability in Karamoja are currently below what is typical of the dry season. In part this is due to above-average land surface temperatures, which are leading to faster than normal depletion of resources. Additionally, resources are being depleted through overgrazing. Pastoralists from South Sudan and Kenya have migrated in much higher than normal numbers to Kotido, Kaabong, and Moroto in search of pasture and water for their livestock. There have been some reports of conflict between locals and foreign pastoralists over the available resources. Overgrazing in Karamoja has led some Karamojong pastoralists to migrate to neighboring Teso, Sebei, and Acholi, atypical migration that has not been observed in recent years. Most livestock have average body conditions, although some livestock with below-average body conditions have been observed, likely due to longer than usual trekking distances. Milk availability at the household level is below average in this livelihood zone, as many livestock are further away from homesteads as is typical. However, livestock conditions are adequate to support normal conception and birth rates.

Food-for-Work and Cash-for-Work safety net programs implemented by WFP and other humanitarian agencies are on-going throughout Karamoja, although the programs have a lower number of participants this year than last year. The 33,434 households participating receive 50 kgs of maize each cycle, which is approximately 42 days. It is estimated that approximately 7 percent of the population of this livelihood zone is being reached with 5 months of cereal through this program. It is unlikely, though, that all recipients are very poor households as the programs primarily operate near city centers, while many very poor households live in more remote, rural areas.

Assumptions

In addition to the national assumptions listed above, the most likely scenario for Moroto and Napak of the Central Sorghum and Livestock livelihood zone for February to September 2017 is based on the following assumptions:

- Forecasts for the April to September rainy season in Karamoja indicate rainfall is likely to be average. The February
 CPC/IRI consensus forecast indicates a higher than usual likelihood of El Niño in the third quarter of 2017, although there
 is currently significant uncertainty in the ENSO forecast. As El Niño is generally associated with a suppression of seasonal
 rainfall in this region, there is increased likelihood the rainy seasons could be at least slightly below average, although
 the event would most likely be towards the end of the rainy season and impact may be minimal.
- Very poor households are expected to cultivate a typical plot size of 0.5-1.0 acre in March/April. Available data shows
 that even following a below-average season, very poor households consistently plant a typical plot size. With average
 plot sizes and near average rainfall, average green harvests in July and dry harvests in August/September are expected.
- Agricultural labor opportunities are expected to be available at typical levels from February/March. Typically, a very poor household earns around 20 percent of their total annual income, roughly 125,000 UGX, through this income source, the majority of which is earned during this outlook period.
- Very poor households are expected to engage in the collection and sale of grass, firewood, and charcoal to earn income
 for market purchases. These opportunities are expected to be available at average levels. Although very poor households
 are likely to increase engagement in these activities during the lean season, stable demand for these products prevents
 large-scale expandability of this income sources. A typical very poor household is expected earn approximately 120,000
 UGX during the outlook period through the sale of these natural products.
- Pasture and water resources are expected to remain below average and further deteriorate through April, after which
 they are expected to improve with the rainy season and remain average through September. Livestock that migrated to
 locations out of Karamoja are expected to return with start of the rains in April. Livestock body conditions and milk
 production are likely to remain below average through May, after which improvement to normal is expected.
- Despite below-average production in bimodal Uganda in 2016, the supply of sorghum, maize and other grains is expected
 to flow into Karamoja at normal levels from Mbale and Soroti. Traders will be incentivized by high prices in Karamoja
 during the February to June lean season.

- The price of sorghum in Moroto and Napak is expected to increase seasonally through June and remain 30 to 40 percent above average. Prices are expected to decline from July through September and remain slightly above average, although not as significantly above average as current prices.
- Food and cash for work safety programming through WFP is expected to continue for the 33,434 beneficiaries through June, likely supplying 1-2 more cycles of assistance. About 82,699 children under the school feeding programme will be reached by daily meals. The community-based Supplementary Feeding Programme (CBSFP) and the Mother and Child Health and Nutrition (MCHN) programs also through WFP are expected to continue through September, supporting 18,794 and 21,125 beneficiaries
- Based on December 2016 preliminary FSNA survey reports, levels of acute malnutrition in Moroto and Napak are 'Serious' (10-15%), according to WHO classification. This is within the typical level for this livelihood across seasons. It is expected the prevalence of malnutrition will increase through June, due to seasonally low food availability, below-average access with high market prices, and increased morbidity during the lean season. Malnutrition is expected to decrease in July with the harvest.

Most Likely Food Security Outcomes

Data collected by WFP in December 2016 during the Food Security and Nutrition Assessment (FSNA) found that 21 percent of households in Moroto and 2 percent of households in Napak had a poor food consumption score (FCS). This was a deterioration from the FSC recorded last year in Moroto, but an improvement in Napak. In both districts, the prevalence of Global Acute Malnutrition (GAM) was approximately 11 percent, a statistically insignificant change from the GAM prevalence recorded at the same time period last year (Figure 6).

From February through the peak of the lean season in June, very poor households are expected to engage in agricultural and casual labor opportunities at normal levels. It is estimated that the amount of income earned through labor opportunities will purchase, at projected price levels, sufficient cereal to last 3.5 months. A significant proportion

Figure 6. Food security and nutrition outcomes in areas of concern according to the WFP Food Security and Nutrition Assessment, December, 2016

District	Indicator	2016	2015
Moroto	Food	21% poor;	11.4% poor;
	Consumption	28% borderline	31.7%
	Score (FCS)		borderline
	Global Acute	11.6%	13.2
	Malnutrition	(9.0%-14.9%)	(9.9%-17.3%)
	(GAM)(WHZ)		
	Food	2.2% poor;	13.4% poor;
Napak	Consumption	22.0% borderline	33.9%
	Score (FCS)		borderline
	Global Acute	11.2%	16.3%
	Malnutrition	(8.5%-14.5%)	(12.0%-21.8%)
	(GAM)(WHZ)		

Source: WFP

of this will be purchased during the upcoming lean season, but total cereal purchased will still be insufficient to meet minimal food requirements. Most very poor households will complement this consumption with wild foods and milk. Others will access additional food through borrowing. Some very poor households are expected to be supported with 1-2 months of cereal through safety net programs through WFP, although this is likely to reach only a small percentage of very poor households in both these districts. It is likely very poor households will experience food consumption gaps during the February to June lean season and be in Crisis (IPC Phase 3).

Expected average production in July will replenish household stocks, increasing cereal consumption and improving food security. The arrival of the harvest is also expected to lead to price decreases among staple commodities, increasing food access. Most poor households will be able to minimally meet their basic food needs during this time and are expected to improve to Stressed (IPC Phase 2). Some poor households will need to repay debts that they accrued during the lean season, though, and will therefore not have sufficient income to afford all typical livelihood activities, including inputs for agricultural production, school fees, and health expenditures.

South Sudan refugee settlements in West Nile of Uganda

Current Situation

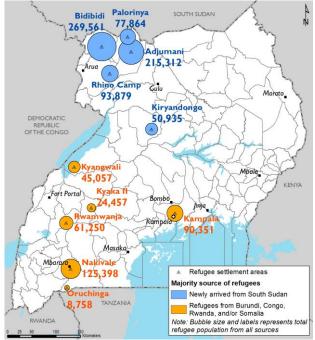
According to Office of the Prime Minister and UNHCR, as at February 21, Uganda hosts over 755,040 South Sudan refugees and asylum seekers, which make up over 68 percent of the refugee population in the country. Settlement areas have been established in northwestern Uganda, specifically in Arua, Adjumani, Moyo, Yumbe, and Koboko, for the large-scale influx of

refugees (Figure 7). Yumbe and Adjumani host 25 and 20 percent, respectively, of the total South Sudanese refugee population, followed by Arua at 9 percent and Moyo at 7 percent.

The current influx of refugees from South Sudan started in mid-2016 after an outbreak of violence in Juba spread to Greater Equatoria, which borders Uganda. The arrival rate is around 2,000 a day. Over 110,000 people have arrived since January 2017, and a significant influx took place between February 3 and 9, when over 25,000 people arrived in the six day period. The majority of the refugees are from Greater Equatoria in Yei, Morobo, Lainya, Kajo-Keji and adjacent areas, and most arrive through informal border points in Uganda or though the DRC. They arrive after several days of walking and possess few belongings. Fifty-eight percent are under 18 years of age, 86 percent are women and children, and 2 percent are elderly.

The current sources of food for South Sudanese refugees vary depending on when the individual arrived in Uganda. Due to the significant increase in need and funding constraints, the food ration for all refugees who arrived prior to July 2015 was cut to a half ration. This amounts to 5.25 kg of flour, 0.75 kg of beans, and 0.5 liters of cooking oil per individual per month, or a cash/voucher equivalent. These individuals were also

Figure 7. Location and population of refugee settlements in Uganda, as of February 2017



Source: UNHCR data

provided with a plot size of approximately 2,500 square meters. Refugees who arrived after July 2015 are receiving full rations through WFP equivalent to 10.5 kg of maize flour, 1.5 kg of beans, 1.2 kg of soya corn, 1 liters of cooking oil, and 50g of salt per individual per month, or a cash/voucher equivalent.

Newly-arrived refugees also receive a plot of land, although the size has been reduced to roughly 900 square meters due to the increased number of recipients and finite land available. The majority of South Sudanese refugees currently residing in Uganda, approximately 75 percent, are defined as newly-arrived refugees, having come to Uganda after July 2015. Targeted Supplementary Feeding and Blanketed Supplementary Feeding programs are provided to all refugees.

Few newly-arrived refugees arrived in time to cultivate and therefore do not have any household food stocks. Most are also not engaged in any income-earning opportunities. Refugees who arrived prior to 2015 engage in agricultural production and some operate small business or participate in wage labor opportunities available within host communities. A plot size of 2,500 square meters would typically produce around 350 kilograms of cereal, depending on how arable the land is, although it is expected most refugees who planted in 2016 harvested less than this, as rainfall in the area was well below average. It is expected most of these households depleted food stocks around December.

Refugee households who are accessing food through market purchases face average prices levels. The retail price of sorghum in December in Arua, the reference market for this area, was 4 percent below last year and stable with the two-year average.

Food security outcomes

Newly-arrived refugees are heavily dependent on food assistance. Most left behind assets in South Sudan and lack access to typical income-earning opportunities now that they reside in the refugee settlements. It is likely most have minimally adequate food consumption with ongoing humanitarian assistance, but are unable to afford essential non-food expenditures and are Stressed (IPC Phase 2!). Some refugee households will likely continue consuming cheaper, less preferred foods, borrowing money to purchase food, and being unable to purchase planting material for the next season. Refugees who arrived prior to July 2015 have larger plot sizes and have been able to cultivate some food, although production was lower than normal. These individuals are also likely meeting their basic food needs, but rely on the half ration provided by WFP and would have worse food security outcomes in the absence of humanitarian assistance. Stressed (IPC Phase 2!) outcomes are expected among these refuges as well.

Preliminary results from a SMART surveys conducted during a recent FSNA in December 2016 found 'Serious' levels of acute malnutrition (GAM (WHZ) 10.0-14.9%) in Adjumani, Lobule, and Bidibidi, while the level of GAM (WHZ) in Rhino Camp was 21.5 percent, defined as a 'Critical' level of acute malnutrition (GAM (WHZ) 15.0-29.9%). The higher prevalence of malnutrition in Rhino Camp could be due in part to the fact that it is a reception area and refugees who have traveled through South Sudan with limited food and water are likely to be more malnourished and within the surveyed population of Rhino Camp. According to a February South Sudan Refugee Situation update report by UNHCR, the Crude Death Rate (CDR) was under 0.5/10,000/day in surveyed settlements, which included Palorinya, Bidibidi, and Rhino.

Assumptions

In addition to the national assumptions listed above, the following assumptions for the October 2016 to May 2017 most likely scenario for South Sudanese refugees have been made:

- Due to ongoing conflict and severe levels of acute food insecurity in South Sudan, refuge flows to Uganda are likely to continue at current levels of roughly 2,000 per day or higher. The rate of refugee inflow is likely to vary slightly by season: a lower daily rate or arrival is expected during the April-June rainy season when road transport becomes difficult.
- WFP's operation plan to provide assistance through July 2017 (full rations to all refugees who arrived after July 2015 and half rations to all who arrived before July 2015) is currently 51 percent funded. Current funding levels guarantee a continuation of assistance at above levels through March. It is not yet known if funding will be available for assistance beyond March.
- The Government of Uganda through the Office of the Prime Minister and UNHCR are expected to continue preparing settlement sites to host new refugees and allocate plots to households for cultivation.
- It is expected that the newly arriving refugees temporarily being received at Palorinya, Rhino, and Bidibidi settlements will be moved to new sites, including Imvepi, given that all other sides are at capacity.
- It is expected that all refugees who arrived in Uganda before December 2016 will engage in cultivation, provided they have access to inputs. Given the expectation of average rainfall in the area, average production levels are likely. Households with plot sizes of 2,500 meters are expected to harvest around 350 kilograms of cereal in June/July, and households with plot sizes around 900 meters will likely harvest around 130 kilograms of cereal. In Rhino camp, though, land is less arable and lower crop yields are expected at this site.
- Humanitarian agencies including DanChurchAid, Lutheran World Federation, United Nations High Commissioner for Refugees (UNHCR), and United Nations Children's Fund (UNICEF) are providing assistance including blanket supplementary feeding (BSFP) for pregnant and lactating women (PLW) and children 6-59 months old, therapeutic feeding and supplementary feeding programmes, health and WASH programming. Given expected continued influx of refugees and uncertainty of funding levels, it is unknown if these organizations will be able to continue providing assistance at current levels. Similarly, it is uncertain if humanitarian agencies providing shelter kids and non-food items will be able to reach all those in need.
- It is expected that the majority of refugees will have limited income earning opportunities throughout the outlook period and will purchase food through cash assistance by humanitarian aid organizations.

Most Likely Food Security Outcomes

Over 750,000 South Sudanese refugees are now residing in Uganda, an approximate 200 percent increase from the number of South Sudanese refugees in the country 8 months ago. The majority are arriving with few assets and limited access to food or income sources. If the current, conservative estimate of 2,000 refugees per day continue to arrive in Uganda throughout the outlook period, it can be expected that hundreds of thousands of additional people will seek refuge in the country between now and September 2017. It is likely that many will have experienced food consumption gaps and be in Crisis (IPC Phase 3) or worse upon arriving in Uganda.

Once in Uganda, it is likely the Government is going to provide settlement at a refugee site and distribute plot sizes of approximately 900 square meters to refugee households. This will allow refugees, if they are able to access adequate inputs, to cultivate once during the outlook period, although it is possible that given short time frame some will only cultivate quick maturing vegetables. Refugee households who are already in Uganda, but arrived after July 2015, are expected to cultivate and harvest the rough equivalent of 2 months of cereal in June/July. Slightly higher volumes of cereal are likely to be harvested

by refugees who arrived prior to July 2015 and have larger plot sizes. They will likely be able to meet roughly 4 months of their food needs through own production.

The majority of refugees are likely to seek labor opportunities in host communities and some will earn income through these means. Among these, agricultural labor opportunities will be available in March. However, given the high number of refugees who will be seeking labor opportunities, it is expected only a small percentage will be able to obtain work. As a result, incomes from these source are likely to be lower for all refugees than previous incomes for refugees prior to the recent influx. A small number of refugees are expected to receive remittances from relatives, although this source is likely to be trivial.

All South Sudanese refugees currently residing in Uganda are expected to remain heavily dependent on humanitarian assistance throughout the outlook period. Own production complements food assistance but does not provide enough cereals to meet a households' basic food needs, even among those with larger plot sizes. Additionally, labor opportunities are expected to remain scarce. Current funding levels only guarantee continued assistance through March. It is therefore assumed that refugees will remain Stressed (IPC Phase 2!) in February and March. From April through September, refugees are expected to be in Crisis (IPC Phase 3) in the absence of humanitarian assistance.

EVENTS THAT MIGHT CHANGE THE OUTLOOK

Table 1: Possible events over the next eight months that could change the most-likely scenario.

Area	Event	Impact on food security outcomes
National	In the event that a La Nina event does occur, and occurs earlier than forecast, rainfall during the August to November second rainy season in bimodal Uganda and the April to September rainy season in Karamoja could be below average, leading to poor production in both areas.	This would lead to a third consecutive season of poor production in bimodal Uganda. Household food stocks would be lower than normal and staple cereal prices would likely remain higher than normal throughout the country, lowering household food access. Some areas in Karamoja, northern, and east-central Uganda would be in Crisis (IPC Phase 3).
Refugee settlements	Sufficient funding to continue allocating food assistance at current levels.	It is expected this would support refugee households to minimally meeting their basic food needs and Stressed (IPC Phase 2!) outcomes would persist in refugee settlements.

ABOUT SCENARIO DEVELOPMENT

To project food security outcomes, FEWS NET develops a set of assumptions about likely events, their effects, and the probable responses of various actors. FEWS NET analyzes these assumptions in the context of current conditions and local livelihoods to arrive at a most likely scenario for the coming six months. Learn more.