FEWS NET
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UGANDA Food Security Outlook February to September 2021

Crisis (IPC Phase 3) or worse outcomes are likely in Karamoja and rural refugee settlements

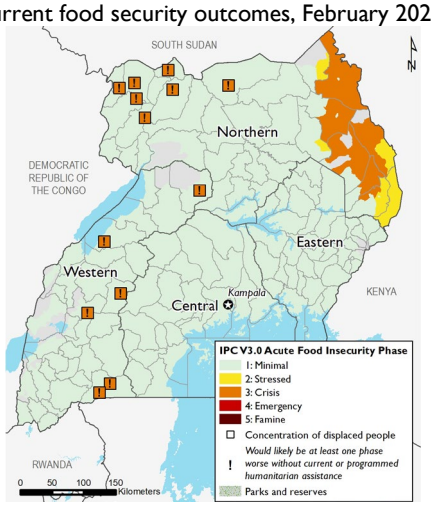
KEY MESSAGES

- Minimal (IPC Phase 1) outcomes are expected in rural and urban areas in bimodal Uganda through September, underpinned by an above-average rainfall forecast from March to May and continued economic recovery in 2021. Available data suggest agricultural production, labor demand, and regional export demand are likely to continue to improve, while low staple food prices are likely to continue to offset the effects of lagging income levels on food access. However, the number of households facing Stressed (IPC Phase 2) or Crisis (IPC Phase 3) outcomes is still likely to be higher than average. Acutely food insecure households are most likely to be located in flood-affected areas near Lake Albert, areas that are vulnerable to floods or landslides during the rainfall season, areas where an FMD livestock quarantine is currently in place, and urban areas.

- In Karamoja, Stressed (IPC Phase 2) and Crisis (IPC Phase 3) outcomes are expected to be widespread through at least July, driven by below-average 2020 crop production, below-normal household income, and declining terms of trade, among other factors. In January, the amount of sorghum that could be purchased with the sale of a goat, a charcoal or firewood bundle, or a day's wage declined relative to December, January 2020, and the five-year average in Karamoja's key reference markets. Based on the likelihood of above-average rainfall from April to September, food availability and access are expected to slowly improve as the 2021 harvest becomes available from July to September.

- Given limited access to income-generating activities, inadequate crop production, and low coping capacity, households in rural refugee settlements are expected to face Crisis! (IPC Phase 3!)[1] outcomes during the agricultural lean season from February through May. Planned food assistance equivalent to a 60 percent ration is anticipated to prevent worse outcomes. However, a reduction in food assistance is likely after May due to an anticipated pipeline break, based on WFP's report of a USD 114 million funding gap. Despite the availability of the first season harvest in June/July, households are likely to have slight to moderate food consumption gaps indicative of Crisis (IPC Phase 3) from June to September.

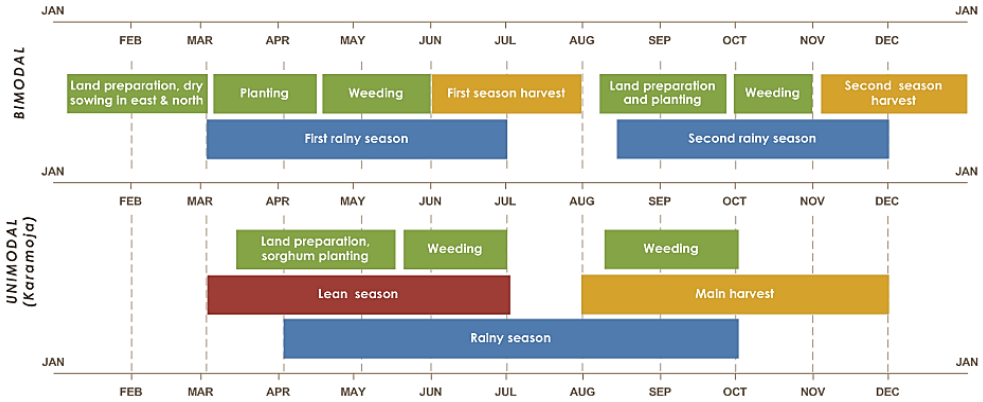
Current food security outcomes, February 2021



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 scale.

SEASONAL CALENDAR FOR A TYPICAL YEAR



Source: *FEWS NET*

[1] The use of (!) indicates areas that would likely be at least one phase worse in the absence of current or programmed humanitarian food assistance.

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NATIONAL OVERVIEW

Current Situation

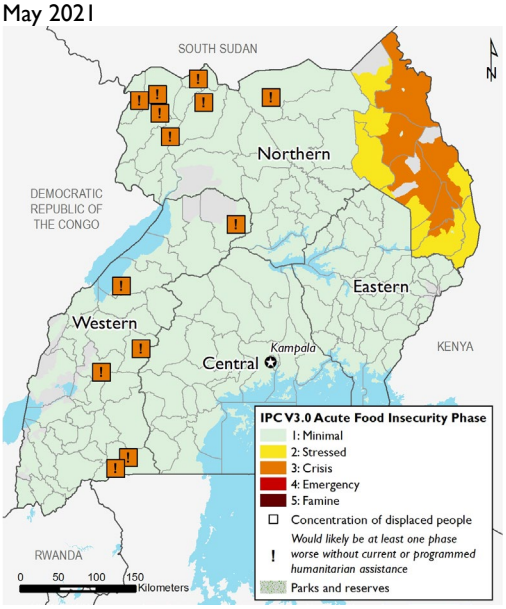
Agricultural and livestock production: During the January-February dry season, most rural households in bimodal areas of Uganda are consuming own-produced crops from the 2020 second season, which they harvested in November-December. Second season cereal production and perennial crop production – such as bananas, cassava, sweet potatoes, and Irish potatoes – ranged from near to slightly above the five-year average. Own-produced food stocks are supplemented with food purchased from the market, primarily funded with income from crop sales, labor, or livestock production.

Livestock body conditions and milk productivity are slightly below seasonal levels in bimodal areas, reducing household food and income from these sources. Despite average to above-average rainfall during the October to December 2020 rainfall season, the early end of the rains and localized, above-average temperatures are driving drier-than-normal conditions. As a result, pasture and water resources are approximately 60 percent below normal in southwestern, central, and northeastern Uganda, including in the southwestern cattle corridor districts, according to the satellite-derived Normalized Difference Vegetation Index. Further, a livestock quarantine that prohibits livestock movement and sales have been enforced in Kiruhura, Kitagwenda, Rubirizi, Ibanda, Mbarara, Gomba, Isingiro, Sembabule Mukono, Wakiso, and Kazo districts of Central and Western Regions since late 2020 to control the spread of Foot and Mouth Disease (FMD). Other neighboring districts along the transit corridors and those neighboring Lake Mburo national park are at risk.

In Karamoja and much of eastern Uganda, the dry season has been more pronounced, with little rainfall observed since November/December (Figure 1). Water shortages are of high concern in parts of Moroto and Kotido, which share livestock watering facilities. Several wildfires in parts of Karamoja have also destroyed residential structures and property, including food stocks and household items. Frequent insecurity incidents involving intercommunal and cross-border conflict have resulted in the theft of livestock and loss of lives in the districts of Moroto, Napak, Kotido, and Kaabong. These have limited household access to normal dry season grazing areas and watering points, resulting in the overutilization of resources in areas where livestock are kept for better protection.

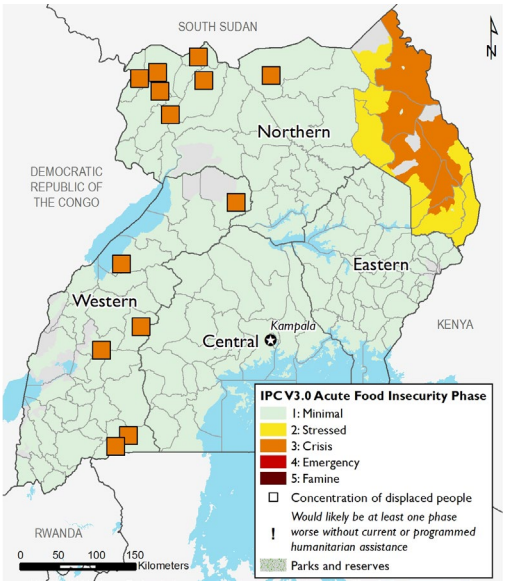
Farmers are gradually beginning to engage in land preparation, plowing, and dry sowing for 2021 first season crop production and main season production in advance of the March to June rainfall season in bimodal areas and the April to September main rainfall season in Karamoja. Seasonal labor opportunities for on-farm activities are at normal levels, and wage rates remain near the five-year average. According to the Uganda Bureau of Statistics, other rural income-generating activities are also available at typical levels, including petty trading, brewing, and running small businesses.

Projected food security outcomes, February to May 2021



Source: *FEWS NET*

Projected food security outcomes, June to September 2021



Source: *FEWS NET*

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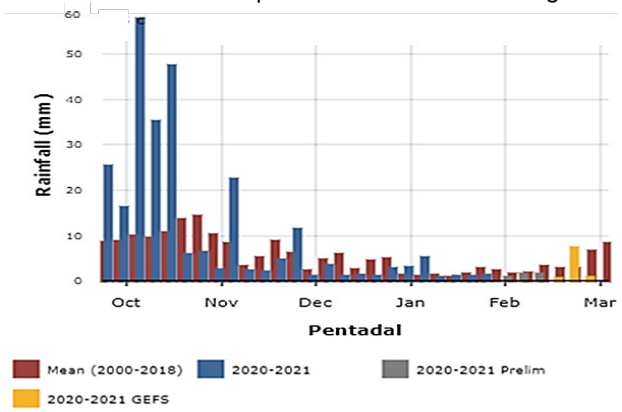
Currently, there are no confirmed reports of desert locust swarms in Uganda. However, the presence of immature swarms in northern and central Kenya and reports of westward movement into Turkana – which is adjacent to Karamoja – poses a credible threat to bimodal first season and unimodal crop production, particularly during the crop emergence or vegetative stages. Surveillance, monitoring, and control measures remain key to the prevention and mitigation of potential damage to crops and pasture as the rainfall seasons begin. Last year, adult swarms were found in the northeastern border areas of Karamoja and Acholi, Teso, Sebei, Elgon, and Lango subregions, but control measures prevented large-scale crop losses.

COVID-19 pandemic and economic recovery: Urban households, along with poor households in Karamoja and refugee settlements who have less resilient rural livelihoods and are already at risk of food insecurity, remain most affected by the economic impacts of the COVID-19 pandemic. According to the Bank of Uganda's analysis of the state of the economy in December 2020, economic activity continues to gradually recover but is progressing unevenly between sectors. Economic growth in FY 2019/20 slowed to 2.9 percent compared to 6.8 percent in FY 2018/19, led by the agriculture, forestry, and fishing sector. The service and industry sectors continue to operate at significantly below normal levels, resulting in high levels of unemployment, including among informal workers. Meanwhile, annual headline inflation for the year ending January 2021 increased slightly to 3.7 percent compared to 3.6 percent in December 2020. Annual inflation of food crops and related items remains low at -5.6 percent in January 2021 compared to -7.0 percent in December 2020.

The results of the Uganda High-Frequency Phone Survey on COVID-19 conducted by the Uganda Bureau of Statistics (UBOS) and the World Bank capture the impact of the national trend in economic activity on households. Among surveyed respondents (n=1669), the overall employment rate among respondents had returned to pre-COVID levels by late 2020, with 87 percent of respondents working by August. The share of those employed was highest in rural areas and among the poorest respondents, even exceeding employments levels prior to March 2020. Urban employment levels remained below normal. Additionally, households reported a shift in employment from non-farm to on-farm economic sectors, with 16 percent of those who worked in the services sector before March 2020 moving to agriculture by August 2020 (Uganda Economic Update, 2020; Figure 2). However, recovery in household income lags recovery in both farm and non-farm employment, with approximately 30-45 percent of respondents reporting they were making less or no earnings in September/October 2020 compared to July/August 2020.

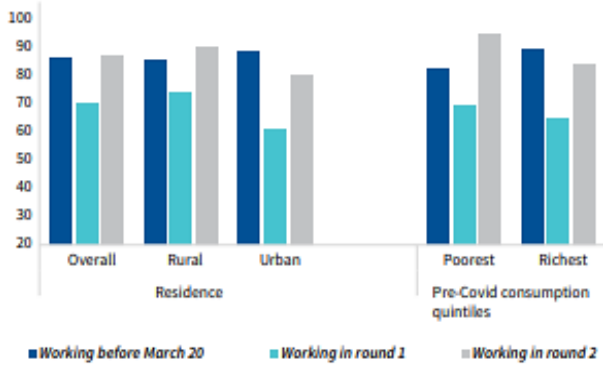
Markets and trade: Uganda registered an increase in regional exports of common staples, including maize, sorghum, and beans, in the last quarter of 2020 compared to the quarterly five-year average (Figure 3). This is partly explained by the increased availability of the second season harvest, which resulted in a national surplus. However, because the COVID-19 border closures forced informal trade into formal channels, the monitoring system is likely also capturing a switch from informal to formal channels. In comparison to Q3 2020, when a higher level of COVID-19 preventive measures were suppressing agricultural exports, exports have rebounded, reflecting the effect of the relaxation of preventive measures on regional demand and trade flows.

Figure 1. CHIRPS Preliminary estimates of rainfall accumulation per 5-day period in Moroto, Karamoja, Oct. 1 2020 – Feb. 28, 2021 compared to the 2000-2018 average



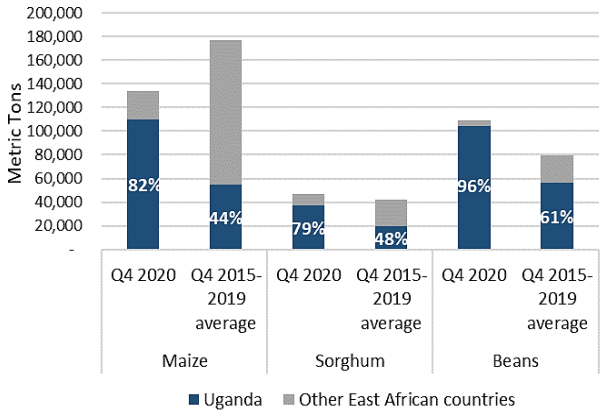
Source: *FEWS NET*

Figure 2. Comparison of the share of survey respondents who reported working prior to March 20, 2020, working in June 2020 (round 1), and working in August 2020 (round 2)



Source: *World Bank/UBOS Uganda Economic Update*

Figure 3. Share of quarterly cross-border exports of maize, sorghum, and dry beans from Uganda in Q4 2020 (Oct.-Dec. 2020) compared to the Q4 five-year average

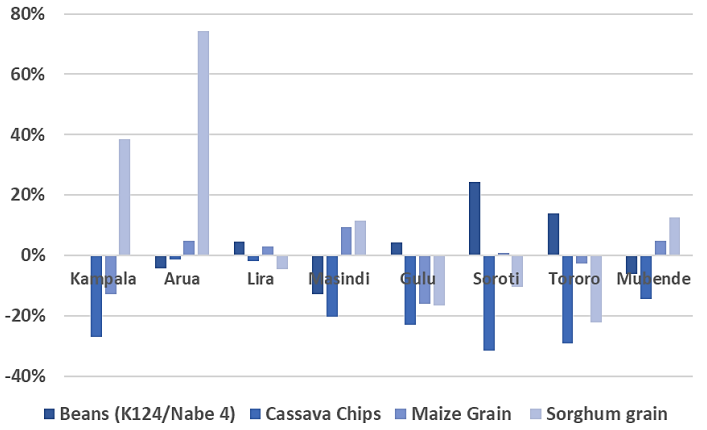


Source: *FEWS NET/FAO/WFP*

Despite improved regional export flows, average to slightly above-average second season harvests and lagging domestic and export demand continue to suppress staple food prices in most key reference markets across the country. Available price data for the main staple food commodities, including dry beans, cassava chips, maize grain, and sorghum, show that retail

prices in January 2021 generally ranged up to 40 percent below January 2020 and up to 30 percent below the January five-year average (Figure 4). However, anomalous price spikes are observed for sorghum and beans in a few markets, such as Kampala and Arua. Additionally, seasonal reductions in household stocks, speculation over future demand locally and regionally, and the improved cross-border trade volumes led to slight to moderate price increases between December and January.

Figure 4. Change in the retail price of a kilogram of dry beans, cassava chips, maize grain, and sorghum in January 2021 compared to the 2016 – 2020 average in various key reference markets



Source: *Farmgain*

Conversely, sorghum prices have risen by up to 20 percent since December across most key reference markets in Karamoja. The trend is likely driven by increased household demand during the ongoing lean season, following below-average local crop production in 2020. The periodic impact of recent insecurity on trade routes and market functioning may also be a contributing factor. As a result, the terms of trade for a kilogram of sorghum that can be purchased with the sale of a firewood or charcoal bundle or the sale of a goat fell 5 to 55 percent below the five-year average in January in most markets.

Current Food Security Outcomes

In rural areas of bimodal Uganda, Minimal (IPC Phase 1) outcomes are likely. A majority of households still have food stocks from their own production and are earning some income from crop sales, agricultural labor, petty trade, and the sale of poultry, animal products, crafts, and other activities. Additionally, low staple food prices are facilitating food access for households with higher market dependency. However, despite a relative increase in rural employment and income compared to 2020, income remains below normal in the post-lockdown, recovering economic environment. As a result, while most poor households can meet their minimum daily kilocalorie needs, income to purchase diverse food sources and income to purchase non-food items is lower than normal. Consequently, the food insecure population remains elevated compared to the five-year average. In addition, the share of households facing Stressed (IPC Phase 2) outcomes likely remains above-normal in areas around Lake Albert, where crop and livestock production and other livelihood activities were affected by 2020 floods.

In urban areas of Uganda, it is similarly expected that the population experiencing Stressed (IPC Phase 2) outcomes or Crisis (IPC Phase 3) outcomes is higher than normal but has declined compared to last year. As evidence by available economic monitoring data, urban households face higher unemployment levels, and income among the employed is lagging compared to pre-pandemic levels. As a result, their access to typical food and incomes remains somewhat constrained.

In Karamoja, Stressed (IPC Phase 2) and Crisis (IPC Phase 3) outcomes are likely in most of the region. A rising proportion of poor households are experiencing slight to moderate food consumption gaps due to shortfalls in 2020 crop production, low access to income-generating activities, and elevated food prices, which marks an early start to the lean season in February. Many households sold a significant portion of their harvests to meet their non-food needs and pay debts incurred during the extended lean season of 2020. As a result, an atypically high number of poor households already consumed their own-produced food stocks and spent their income from crop sales. At the same time, below-average terms of trade for sorghum against sales of charcoal, goats, and firewood, as well as declines in the labor wage, are further limiting food access. **Additional analysis on Karamoja is provided on pages 7-9 of this report.**

In rural refugee settlements, Crisis! (IPC Phase 3!) outcomes are likely given that most households have limited access to food and income sources in a normal year and have experienced further shortfalls due to the economic impacts of the COVID-19 pandemic. At this time of year, even households with access to arable land have already or nearly finished consumption or sales of their own-produced food stocks, which typically last less than two months. The reduction to a 60 percent monthly cash or in-kind ration as of February is inadequate to prevent slight to moderate food gaps each month among a substantial proportion of the population, and available evidence from WFP mVAM suggests many households have insufficient food consumption and engage in crisis or emergency livelihoods coping strategies. According to UNHCR/OPM, Uganda hosted 1,450,317 refugees and asylum seekers as of January 31, 2021. **Additional analysis on refugee settlements is provided on pages 10-12 of this report.**

Assumptions

From **February to September 2021**, the most likely food security outcomes are based on the following key assumptions:

- The COVID-19 pandemic is expected to have long-lasting effects on the Ugandan economy, with economic growth projected to recover to pre-COVID-19 levels in FY2022/23. According to the Bank of Uganda, economic growth is projected in the range of 3.5-4.5 percent in FY2020/21 and 5.0-6.0 percent in FY2021/22 amid the pandemic, weak global economic activity, weather shocks, geopolitical tensions, and trade policy uncertainty. In the short term, inflation of consumer goods and services is expected to remain low but vulnerable to upward pressure by local and global factors.
- Despite rising COVID-19 cases and fatalities, movement restrictions are expected to remain limited for economic and political reasons. Although the gradual recovery in economic activity is expected to lead to a relative improvement in household income in 2021 compared to 2020, especially among the urban poor, household income will still most likely remain below normal levels.
- The CPC/IRI probabilistic forecast indicates La Niña conditions are most likely through May and will re-emerge in the August-October period. Based on the climate forecast, rainfall during the March to June 2021 first rainfall season in bimodal areas and the April to September 2021 main rainfall season in Karamoja are forecast to be above average, with rainfall amounts expected to peak in April. The start of the August to November 2021 second rainy season is likely to be average to above average, but uncertainty exists given the long-term nature of this forecast.
- Based on the March to June rainfall forecast, first season crop production in bimodal areas will most likely be above average. Localized incidences of flooding and waterlogging damaging crops as well as landslides in the mountainous areas of eastern and western Uganda are likely. Conversely, based on the April to September rainfall forecast, unimodal production in Karamoja will most likely be above average and timely. Past trends indicate crop production in Karamoja is susceptible to waterlogging during heavier rainfall seasons.
- Agricultural labor demand is anticipated to follow normal seasonal trends from February through September, including land preparation, planting, and weeding activities. However, the labor wages are likely to lag behind employment opportunities, thus suppressing overall income.
- Based on below-average off-season rainfall, localized above-average ground surface temperatures, and current pasture conditions and water resources, livestock production is anticipated to decline to below normal levels through March in key cattle corridor districts and other bimodal areas. However, seasonal improvement is expected beginning in late March/April, following the start of the rainfall season. As a result, livestock body conditions and milk production are expected to decline and remain low through March and then improve beginning in April.
- In central and northern Karamoja, access to dry season grazing areas will likely be constrained due to insecurity between the Turkana and Karamojong and among the Karamojong. Periodic cattle thefts, loss of human life, and other consequences are expected. Based on the rainfall forecast and pasture conditions, livestock body conditions and milk production are expected to seasonally decline through April and then reach their annual peak from April to September.
- Due to the presence of Desert Locust in northwestern Kenya and based on seasonal wind patterns, Desert Locust will likely remain a threat to eastern Uganda. However, the improved capacity to monitor and control Desert Locust in Kenya and Uganda over the last year – as well as the expectation that above-average rainfall would regenerate pasture and support replanting – is expected to mitigate the extent of the damage to crops and pasture.
- Based on current trends, cross-border regional trade is expected to continue improving in the short to medium term due to the ongoing, modest recovery of economic activity across East Africa. Demand for maize, sorghum, dry beans, and livestock exports will slightly improve, except to Rwanda, where the border remains closed.
- Following the seasonal decline in the national tradeable surplus and a slight increase in regional demand, staple food prices in Uganda are expected to seasonally rise from February to May but will remain near to slightly above the five-year average in most key reference markets. Prices are expected to increase at a slower rate compared to the same time in 2020 before and after the lockdown. New supplies from the June/July harvests are expected to drive a seasonal decline in staple food prices through September.
- Seasonal income from second-season crop sales and livestock sales is likely to remain below normal for poor households through May, based on slow but gradual recovery in food demand and below-average farmgate prices. As economic activity accelerates and facilitates higher demand, income from these sources is expected to relatively improve during the first season harvest starting in June, except in districts under the livestock quarantine due to FMD.

Most Likely Food Security Outcomes

In rural and urban areas in bimodal Uganda, Minimal (IPC Phase 1) outcomes are likely to be sustained throughout the scenario period. However, some households may still face difficulty covering their non-food needs without engaging in coping strategies – indicative of Stressed (IPC Phase 2) – or may face slight to moderate food consumption gaps – indicative of Crisis (IPC Phase 3). These households are most likely to be located in flood-affected areas near Lake Albert, areas that are vulnerable to floods or landslides during the above-average March to May rainfall season, areas affected by the FMD livestock quarantine, and urban areas. The population that is Stressed (IPC Phase 2) or in Crisis (IPC Phase 3) is expected to be lower compared to the same period of 2020. Overall, food availability and access will be driven by above-average crop production, low staple food prices, and a relative increase in labor income compared to 2020. Food and labor income earned from above-average production of cereals and legumes, as well as typical perennial crops such as tea, coffee, sugarcane, and bananas, is expected to cover at least the minimally adequate dietary needs of most rural households. Some crop losses may occur in localized flood- or landslide-prone areas, and it is possible localized crop losses from Desert Locust may occur in parts of eastern Uganda, but these losses are unlikely to be widespread. In urban areas, low food prices are expected to help offset the impact of the slow economic recovery on employment and lagging income levels.

In Karamoja, Stressed (IPC Phase 2) and Crisis (IPC Phase 3) outcomes will become more widespread as food and income sources further decline during the lean season, which is anticipated to last until at least July. Households will primarily rely on casual labor income, sales of natural resources like charcoal and firewood, and other goods and services to purchase food, but low demand and high competition for these activities are expected to continue to limit household income. Meanwhile, high staple prices coupled with constrained income will continue to suppress household purchasing power. During this period, a significant proportion of the population will experience slight to moderate food consumption gaps and will need food assistance. As the main 2021 harvest gradually begins in July and is fully underway by August or September, the population in Crisis (IPC Phase 3) is expected to decline. However, the precise timing of the harvest is contingent on rainfall performance.

In rural refugee settlements, refugees are expected to continue to rely on humanitarian food assistance heavily, but the 60 percent ration that is planned through May and the potential of an even lower ration after May is unlikely to prevent food consumption gaps. Crisis! (IPC Phase 3!) outcomes are expected from February to May, which encompasses the longer agricultural lean season. During the June to September period, the availability of the harvest among refugees with arable land is expected to mitigate worse outcomes, resulting in Crisis (IPC Phase 3). Throughout the scenario period, many refugees will likely earn insufficient income to purchase their remaining food and essential non-food needs, and, as a result, most will have at least slight to moderate food consumption gaps and will likely use negative coping strategies. There is a likelihood of increased acute malnutrition among children and poor dietary diversity among pregnant and lactating women and girls.

EVENTS THAT COULD 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	Partial lockdown measures reinstated to prevent the spread of COVID-19	Households' ability to earn income would fall significantly. Poor households who rely on off-farm, daily income sources would be most affected, especially in urban areas and refugee settlements. Prolonged supply chain disruptions would likely lead to higher food prices than currently anticipated. The population experiencing Crisis (IPC Phase 3) would quickly increase and be more widespread, given that coping capacity is already low due to the economic slowdown.
National	Delayed, below-average, or poorly distributed seasonal rainfall	This would reduce the availability of agricultural labor opportunities and delay the arrival of harvests. Below-average crop performance would likely result in below-average production. More households would be Stressed (IPC Phase 2), especially in Teso region. In Karamoja, the population in Crisis (IPC Phase 3) would likely increase and food consumption gaps would widen.
National	Significantly above-average rainfall	Early-season over-saturation of soil would likely delay plowing and planting activities, while crop losses due to waterlogging, floods, or landslides would be likely as the season progressed. Flood- and landslide-prone areas would likely deteriorate to Stressed (IPC Phase 2) with some households in Crisis (IPC Phase 3) due to the loss of crops and related on-farm livelihood activities. In Karamoja, the population in Crisis (IPC Phase 3) would likely remain atypically high during the harvest season.
Karamoja region	Significant invasion of Desert Locust from Kenya or Ethiopia	Should a significant locust invasion occur in April/May, when crops are in the vegetative stages, there would be a higher likelihood of moderate to significant crop losses on the household level. However, the government's existing surveillance and control response mechanisms would likely prevent widespread crop failure. Given limited capacity to replant, the population in Crisis (IPC

		Phase 3) would likely remain atypically high during the harvest season.
Refugee settlements	Secured funding that raises rations to 70 percent or more	In the event that donors provide additional funding and rations for refugee households are restored to at least 70 percent during the June to September period, which overlaps with the June/July harvest, Stressed! (IPC Phase 2!) outcomes would be anticipated. However, a more significant increase in food assistance would be required in the February to May lean season period to prevent Crisis (IPC Phase 3) outcomes; while food assistance would likely mitigate food deficits and the use of negative coping strategies, households would likely still have at least slight food gaps.

AREAS OF CONCERN

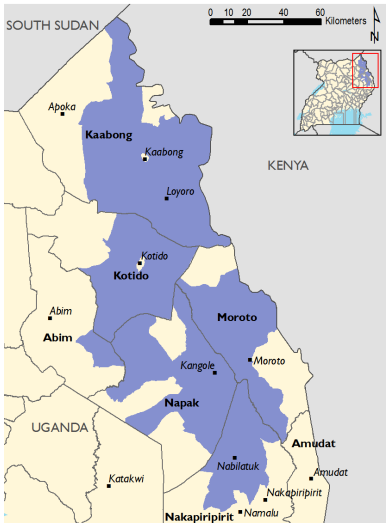
Central Sorghum and Livestock (CSL) livelihood zone in Karamoja (Figure 5)

Current Situation

Weather shocks and the economic impact of the COVID-pandemic are the primary drivers of Crisis (IPC Phase 3) outcomes in Karamoja in early 2021. As of late February, many households have already or nearly depleted their own-produced food stocks from the 2020 harvest. Heavy rain during and after the April-September 2020 rainfall season led to both early-season waterlogging in central and northern *CSL livelihood zone* as well as postharvest handling losses. FEWS NET estimates that total crop production was approximately 10-20 percent below the five-year average. However, the rains increased the availability of wild vegetables and fish in the wetlands, which is somewhat mitigating the impact of crop losses on household food consumption.

Despite the heavy rain recorded in October, minimal rainfall over the past four months has led to reports of below-normal water availability for livestock, especially in parts of central Karamoja such as Moroto. However, the impact on livestock body conditions and production have generally been somewhat mitigated by dry pasture. The satellite-derived Normalized Difference Vegetation Index shows pasture conditions have followed typical seasonal trends and remained above median levels since August (Figure 6).

Figure 5. Area of concern reference map, Central Karamoja Sorghum and Livestock (CSL) livelihood zone



Source: *FEWS NET*

According to key informants, livestock migration to dry-season grazing areas has been limited due to the insecurity characterized by cattle thefts, destruction of property, and loss of life amid intercommunal clashes and attacks against government security forces. Relatedly, worsening insecurity in the Karamoja region since late 2019 to-date – involving armed cattle raids between ethnic communities in Karamoja and the neighboring Turkana region – has threatened peace and stability and the pursuit of normal livelihood activities. Insecurity was particularly high in Napak in January, which contributed to reduced trade flows and market functioning with an impact on staple food prices.

Given that most poor households either already consumed their harvested stocks or sold a significant portion of their production to repay debts incurred during the 2020 lean season and cultivation period, markets are currently a primary source of food in addition to hunting and gathering. However, income-generating activities – which are limited in Karamoja even in a normal year – have yet to recover to typical levels since the start of the pandemic. At the same time, staple food prices have risen significantly, reducing household access to food. From December to January, the retail price of a kg of sorghum rose by 11-19 percent in Moroto, Nakapiripirit, Kotido, and Kaabong, while a sharp increase of 41 percent was observed in Napak. A similar trend is observed in comparison to last year and the five-year average, attributed to increasing demand, insecurity on trade routes, and the costs of sourcing supplies from outside Karamoja region.

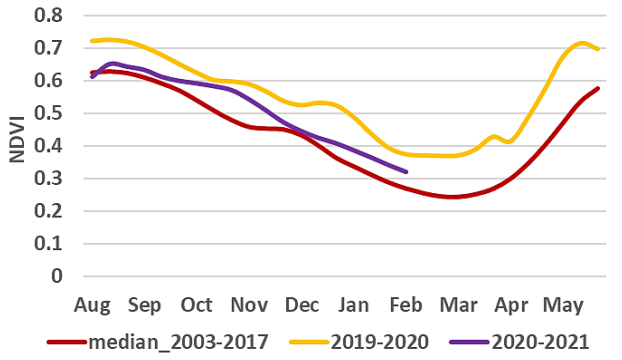
Higher staple food prices and the declining value of typical income sources have led to a general decline in the terms of trade for sorghum against the labor wage, firewood, charcoal, and goats, which fell 8-69 percent below the five-year average in most markets (Figure 7). For example, the casual labor wage fell by 17-25 percent in Kaabong and Moroto in January compared to one year ago and by 12-32 percent compared to the five-year average, linked to low off-season labor opportunities. Similarly, the price of charcoal decreased by 14-58 percent in Moroto, Nakapiripirit, and Kaabong, attributed to high competition for collection and sales. Despite atypically high demand for livestock following the re-opening of markets in November/December that boosted the price of a goat by as much as 16 percent above the five-year average in Kotido and

Nakapiripirit, high sorghum prices outpaced these gains. In Napak, goat prices dropped 19 percent below average due to the impact of insecurity on livestock trading.

Based on the early exhaustion of own-produced harvests, indebtedness, below-average household income, and declining household purchasing power, a significant proportion of the Karamoja population is likely experiencing slight to moderate food consumption gaps indicative of Crisis (IPC Phase 3) prior to the typical start of the lean season, which usually begins in March. Even in a normal year, households in the CSL livelihood zone and the Karamoja region more broadly tend to experience low dietary diversity, especially in the lean season and among households with elderly and chronically ill heads. Currently, although poor and very poor households have sought to expand typical livelihood strategies to earn cash – such as selling firewood and charcoal, building poles, mining sand and gold, selling local brew, quarrying stone, and some petty trading – household income from these sources are insufficient to meet their minimum food requirements.

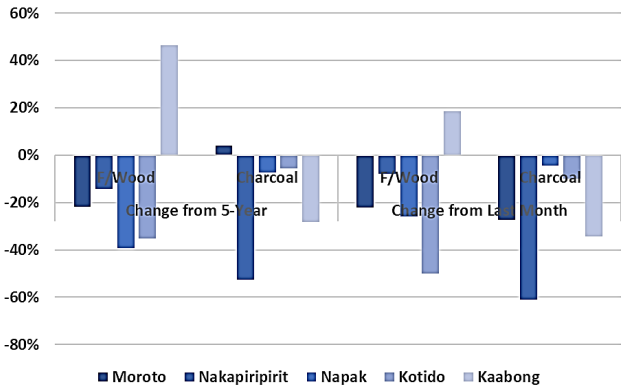
According to data from the most recent WFP mobile VAM (mVAM) survey in November 2020, the 2020 seasonal harvest supported a generally declining trend in the prevalence of inadequate food consumption (as defined by a poor or borderline Food Consumption Score) from September through November. However, a significant proportion of surveyed households reported a decline in dietary diversity and quantity. By inference, food consumption indicators have likely worsened since November, as households have already or nearly exhausted their food stocks and declining terms of trade are restricting access to adequate food for many households. In November, 30 percent of surveyed households in Karamoja had insufficient food consumption compared to 40 percent in October. The highest percentage of households with inadequate food consumption were in Karenga (60 percent) and Kaabong (42 percent), while in the other five districts, it ranged between 9 and 26 percent. At the same time, 45 percent of surveyed households reported using food-based coping strategies – as measured by the reduced Coping Strategies Index – at a frequency indicative of Stressed (IPC Phase 2). These strategies include those such as reducing food portion sizes, borrowing food, reducing the number of daily meals, and consuming less preferred or less expensive food. It should be noted that mobile phone surveys are not representative, making generalizations and comparisons difficult.

Figure 6. NDVI trends in 2019, 2020, and 2021 compared to the 2003-2017 long term average, Kotido district, Karamoja



Source: *FEWS NET*

Figure 7. Percent change in the terms of trade for sorghum against firewood and charcoal in January 2021 compared to December 2020 in key reference markets in Karamoja



Source: *Farmgain/WFP*

Assumptions

In addition to the national assumptions listed above, the most likely scenario for the Central Sorghum and Livestock livelihood zone for **February to September 2021** is based on the following assumptions:

- Despite the above-average rainfall forecast for the April-September 2021 season, area planted and demand for agricultural labor are expected to be below normal through May due to farmers' limited income and limited ability to save seeds, which will constrain access to seeds for planting. Additionally, crop damage from waterlogging and a limited capacity for farmers to replant are likely to offset any gains in yields. As a result, an average to slightly below-average sorghum harvest is expected, starting with the green harvest in July and the dry harvest in August/September.
- Pasture and water availability are expected to regenerate during the above-average rainfall season, supporting seasonally normal livestock births and milk availability through August. However, livestock migration to traditional grazing areas is expected to remain restricted in some areas due to tribal clashes among the Karamojong and Turkana over resources and livestock thefts, which have escalated in the recent past compared to levels in 2019 and earlier.
- Based on FEWS NET's integrated price projections for sorghum in Moroto, the price of a kilogram of sorghum is expected to rise by up to 10 percent above the monthly five-year average and up to 25 percent above last year until the start of

the harvest in July. Bean prices are expected to range from 15 to 40 percent above the monthly five-year average and up to 25 percent above last year. Given the first season harvest in surplus-producing bimodal areas in May, supplies of sorghum, maize, and other grains will flow into Karamoja from nearby areas like Mbale, Soroti, Lango, and Acholi.

- With the expansion of natural resource sales as a livelihoods strategy and low demand associated with the closure of bars and other social gathering venues, the price of a charcoal/firewood bundle is likely to remain below normal. Similarly, due to suppressed labor demand and an oversupply of labor linked to the reduction in other income-generating activities during the pandemic, the labor wage rate is expected to remain below normal. Based on this and the above-average staple food price projections, the charcoal/firewood-to-sorghum and labor-to-sorghum terms of trade are expected to remain below the five-year average but better compared to the same period of 2020.
- Wild food availability is expected to seasonally rise with the start of the rainfall season, supported by above-average rainfall. Household reliance on hunting and gathering is expected to be atypically high amid high food prices.
- Implementation of WFP's supplementary feeding program is anticipated to continue at baseline levels through September. Due to partial/gradual school re-opening, school feeding programs providing meals at school and take-home rations are likely to reach about 117,039 pupils.

Most Likely Food Security Outcomes

From February to May, Crisis (IPC Phase 3) outcomes are expected in *CSL livelihood zone* in Karamoja, marked by slight to moderate food consumption gaps or the depletion of productive assets among households. Poor households will access some cash or in-kind income with the start of the agricultural season in March/April. However, due to the impact of the pandemic and above-average rainfall on on-farm and off-farm labor demand, coupled with high competition and low demand for other key income sources and high staple food prices, a significant proportion of the population will be unable to meet their minimum food needs. Low income and reduced purchasing power will be a limiting factor for food access, given high market dependence during the lean season period, which is already underway and will last until at least July.

Although the enhanced availability of wild foods for hunting and gathering during the rainfall season will likely mitigate more severe food consumption gaps, poor households are expected to increase the intensity of food-based coping strategies and livelihood coping strategies, such as reducing meal portions and meal frequency for both children and adults or selling small livestock. However, most poor and very poor households have few small livestock and productive assets to sell and limited access to credit, which limits the coping options available to them. Middle and better-off households, who own more livestock, are likely to maintain better access to food given favorable demand and prices following the re-opening of livestock markets in late 2020. Based on past assessments, reduced food and intake and high seasonal disease prevalence will likely drive deterioration in acute malnutrition at the district level within Serious (Global Acute Malnutrition (GAM) Weight for Height (WHZ) 10-14.9 percent) levels in most districts. In Moroto and Kaabong districts, Critical levels (GAM 15-29.9 percent) are possible.

From June to September, household food consumption is expected to improve with the start of the green harvest anticipated in July and the start of the dry harvest anticipated in August/September. While Crisis (IPC Phase 3) outcomes are expected to persist through at least July, improvement to Stressed (IPC Phase 2) is expected by August. Typically, harvests begin first in the south and progress towards northern Karamoja, though above-average rainfall could lead to a delay in the precise timing of harvest availability. Given the anticipated average to slightly below-average harvest, household food availability and seasonal income from crop sales are expected to reach an annual peak by September. Given that inflows of food commodities from bimodal areas to Karamoja markets will seasonally rise by May, household food access will also improve as declining staple food prices drive relative improvement in purchasing power. As food and milk consumption improve, acute malnutrition is expected to improve within Serious (GAM WHZ 10-14.9 percent) levels in Kotido, Moroto, Nabilatuk, and Amudat districts, while the other five districts in Karamoja are likely to improve to Alert (GAM WHZ 5-9.9 percent) levels.

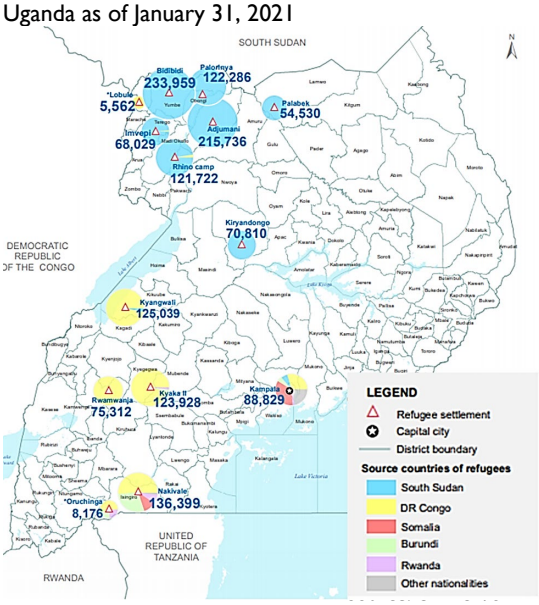
Rural refugee settlements (Figure 9)

Current Situation

Given few livelihood options, limited access to productive arable land, and low coping capacity, most refugees living in Uganda's 13 settlements primarily rely on humanitarian food assistance as their key food and income source. However, chronic underfunding of the refugee response threatens the ability of humanitarian organizations to deliver sufficient food

assistance to mitigate household food consumption gaps. Prior to the onset of the COVID-19 pandemic, a Vulnerability and Essential Needs Assessment conducted by REACH in late 2019 highlighted that the refugee population in Uganda is disproportionately composed of vulnerable populations with protection concerns and low economic capacity. As of January 2021, the proportion of children is estimated at over 55 percent of the 1.45 million refugee population. Women and children together comprise 80 percent of the population, according to data recorded by UNHCR and the Office of the Prime Minister (OPM). South Sudanese make up the largest proportion with 62 percent, followed by 29 percent from the Democratic Republic of the Congo.

Figure 9. Refugee population by settlement in Uganda as of January 31, 2021



The economic impacts of the COVID-19 pandemic continue to significantly constrain the minimal levels of household income that refugees could earn from off-farm sources. Prior to the pandemic, available income sources included wage labor, small businesses, food vending, transportation (*boda boda*), brewing, and sales of firewood/charcoal. However, similar to the rest of Uganda, income from these sources remains well below normal despite partial recovery since the lifting of the most-stringent movement restrictions in mid- to late-2020. Further, given limited access to arable land and small plot sizes for agricultural cultivation, many households are less resilient to the impacts of the pandemic compared to other rural populations. Most farming households accessed an estimated two months of own-produced food stocks during the November/December second season harvest. Since these stocks have already or nearly been consumed or sold by February, most households currently only have access to minimal food and income from remittances and livelihood activities, such as fishing/hunting, gifts, and petty trade.

Effective February 2021, humanitarian actors reduced cash and in-kind food assistance to the equivalent of a 60 percent ration, a decline compared to the 70 percent ration delivered from April 2020 through January 2021 and the 100 percent ration delivered prior to April 2020. According to the 2021 plan, 95 percent of the refugee population receives food assistance, with 62 percent receiving cash and 38 percent receiving in-kind food. Cash transfers are the dominant modality in the southwestern settlements, reaching 92-99.9 percent of beneficiaries, and in Kiryandongo, Lobule, Adjumani, and Rhino Camp, reaching 51-100 percent of beneficiaries. Double rations are delivered every two months to mitigate the spread of COVID-19.

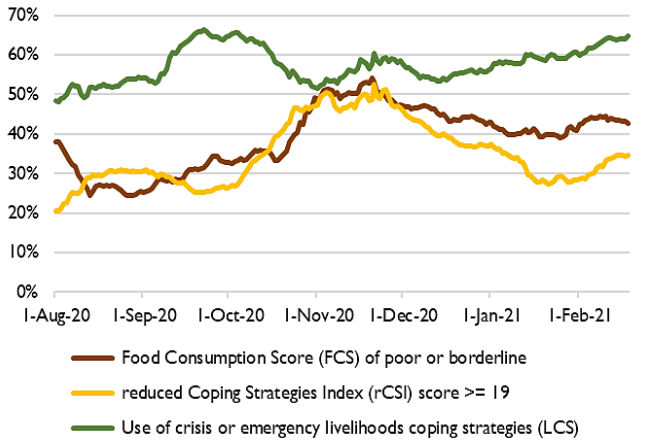
Despite the delivery of cash transfers and generally below-average staple food prices in bimodal reference markets, most refugee households continue to face difficulty affording their minimum food needs and are unable to simultaneously afford essential non-food needs. Physical access to markets also varies at the settlement and household level, dependent on high transport costs, taking care of a sick adult household member, and market closures. According to the last market monitoring bulletin from WFP (based on data collected in November but published in February), the value of the cash transfer fully covered the cost of purchasing the equivalent of a 21-day ration[2] in the local market in all settlements except Rhino, where more expensive local food prices meant the cash transfer value only covered 91 percent of a 21-day ration. However, WFP's analysis of the cash transfer value against the food Minimum Expenditure Basket (MEB)[3] – which is composed of more diverse food groups than a food assistance ration and is approximately equivalent to 2,100 kilocalories – shows that it could only purchase 40 percent of the total food MEB. The cost was most expensive in Kiryandongo (336,300 UGX), where the cash transfer value only covered 33 percent of the food MEB. In light of the reduction in the cash transfer value in February and a relative increase in staple food prices compared to November, it is likely that the cash transfer value currently covers less than 40 percent of the food MEB cost in local markets.

Given refugees' low economic capacity, limited access to income-generating activities, and seasonally low own-produced food availability, current levels of humanitarian food assistance are inadequate to prevent slight to moderate food consumption gaps and poor dietary diversity among the refugee population. According to WFP mVAM monitoring data collected in each of the 13 rural refugee settlements, an average of 45 percent of the refugee population had inadequate

[2] The 70% in-kind ration included 8.84 kg of maize grain, 2.1 kg of beans, 0.63 kg of vegetable oil, and 0.15 kg of salt per person.
[3] The MEB includes maize flour, beans, sorghum grain, oil, cassava, salt, leafy vegetable, dried fish, and milk.

food consumption as of mid-February, while an average of 32 percent of the refugee population was using food-based coping strategies at a frequency indicative of Crisis (IPC Phase 3) (Figure 10). The use of crisis or emergency livelihood coping strategies to mitigate food consumption gaps is also common. While mobile phone survey data is not necessarily representative, available evidence strongly suggests that Crisis! (IPC Phase 3!) outcomes are currently occurring across the settlements. Given the timing of double distributions, however, households are more likely to experience food consumption gaps or use negative coping strategies at the end of the two-month period, such as reducing meal portions, borrowing food, or begging.

Figure 10. Proportion of refugee households in the 13 settlements reporting FCS, rCSI, and LCS scores indicative of Crisis (IPC Phase 3) or worse outcomes from Aug. 2020 to mid-Feb. 2021



Source: FEWS NET analysis of WFP mVAM data

Assumptions

In addition to the national assumptions, the most likely food security outcomes in refugee settlements for **February to September 2021** are based on the below assumptions:

- Due to the ongoing COVID-19 pandemic, the government of Uganda is expected to maintain current restrictions on new refugee arrivals in the medium term. Nevertheless, some new arrivals are likely through porous border crossing points.
- As in other bimodal areas of Uganda, above-average rainfall during the March to June first season is expected to support favorable cropping conditions. Given small plot sizes and limited capacity to invest in inputs, refugee households that have access to their own land for cultivation are expected to harvest only 1-2 months of stocks in June/July.
- Based on confirmed and advanced funding, WFP anticipates delivery of food assistance equivalent to a 60 percent ration is likely through at least May 2021. However, further ration cuts are likely after May 2021. WFP plans to deliver cash transfers to 62 percent of the targeted beneficiary population and in-kind food to 38 percent of the beneficiary population, with cash dominating in southwestern settlements. WFP plans to continue delivering double distributions of cash transfers and in-kind food on a bi-monthly basis as a preventive measure against the spread of COVID-19.
- Demand for farm and off-farm labor, as well as consumer demand for goods and services, is expected to remain below normal due to the slow pace of economic recovery in 2021. The reduction in food assistance rations, which refugees often use or sell to purchase or invest in other needs, is also likely to affect trade and demand. However, agricultural labor demand on farms in the host community may be higher in 2021 than 2020, driven by improving export demand. As a result, household cash and in-kind income is expected to remain below normal throughout the scenario period.
- Based on FEWS NET's integrated price projections for the reference market in Arua, the wholesale price of a kilogram of maize grain is most likely to range between 10 and 40 percent below the 2020 and 2016-2020 averages. Prices are expected to peak from March to June at approximately 820-875 UGX/kg prior to the first season harvest in June/July. Suppressed prices are driven by the surplus maize supply in Uganda following suppressed demand during the pandemic, but prices are likely to rise moderately in response to increasing export volumes to South Sudan and the DRC.

Most Likely Food Security Outcomes

From February to May, Crisis! (IPC Phase 3!) outcomes are likely across all refugee settlements. This period overlaps with the longer agricultural lean season, when farming households exhaust their own-produced food stocks and staple food prices are anticipated to rise. Given that refugee households already have limited income sources in a normal year and that they experienced more stringent restrictions on their ability to earn income in 2020, household recovery from the COVID-19 economic shock is expected to be slower relative to other Ugandan populations. Low economic capacity and access to income-generating activities will therefore continue to constrain household food access. Although the 60 percent ration is expected to prevent the occurrence of Emergency (IPC Phase 4) outcomes through May, many households will still be unable to fully cover both their minimum daily kilocalorie needs and essential non-food expenditures. As a result, a significant proportion of the population in each settlement is expected to have slight to moderate food consumption gaps or will utilize negative coping strategies to mitigate those gaps.

From June to September, the availability of the first season harvest is expected to offer less than two months of own-

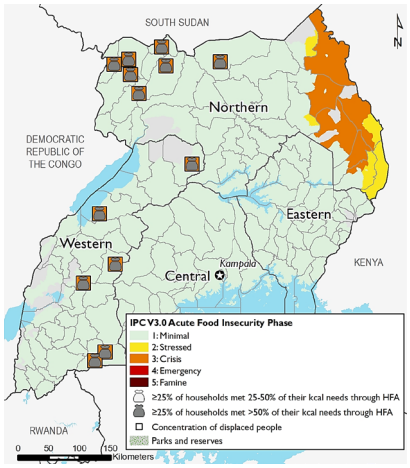
produced food stocks among households with access to arable land. However, their stocks may be even lower than usual due to reduced income to invest in inputs. Another mitigating factor is a slight improvement in household purchasing power based on the projection of declining, below-average to average staple food prices after June. Nevertheless, household food access is expected to remain low given constraints to total household income. Further, the likelihood of additional ration cuts after May will reduce a critical source of food and income. Based on these factors, it is likely that at least 20 percent of the population in each settlement will continue to experience slight to moderate food consumption gaps during this four-month period, particularly after own-produced food stocks are expended in August/September. Crisis (IPC Phase 3) outcomes are expected, since the availability of the harvest and decline in food prices would likely prevent more severe outcomes.

Given sustained food consumption gaps throughout the scenario period, an atypical increase in the prevalence of acute malnutrition is likely. Based on available FSNA historical data, the prevalence of acute malnutrition in settlements typically ranges from 'Acceptable' (GAM WHZ <5 percent) to 'Alert' (GAM WHZ 5-9.9 percent) in the presence of full ration distributions. However, the anticipated decline in food consumption would likely drive deterioration within 'Alert' levels or to higher 'Serious' (GAM WHZ 10-14.9 percent) levels.

MOST LIKELY FOOD SECURITY OUTCOMES AND AREAS RECEIVING SIGNIFICANT LEVELS OF HUMANITARIAN ASSISTANCE*

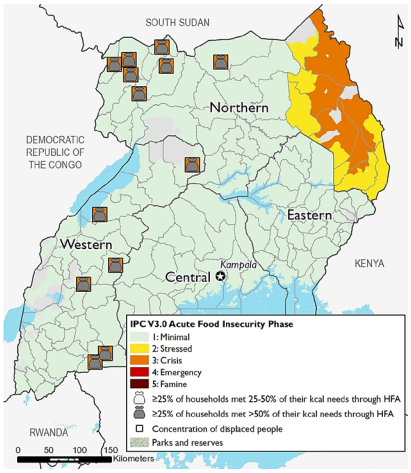
Each of these maps adheres to IPC v3.0 humanitarian assistance mapping protocols and flags where significant levels of humanitarian assistance are being/are expected to be provided. indicates that at least 25 percent of households receive on average 25–50 percent of caloric needs from humanitarian food assistance (HFA). indicates that at least 25 percent of households receive on average over 50 percent of caloric needs through HFA. This mapping protocol differs from the (!) protocol used in the maps at the top of the report. The use of (!) indicates areas that would likely be at least one phase worse in the absence of current or programmed humanitarian assistance.

Current food security outcomes, February 2021



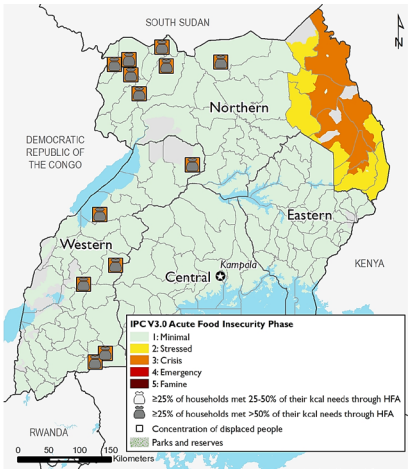
Source: *FEWS NET*

Projected food security outcomes, February to May 2021



Source: *FEWS NET*

Projected food security outcomes, June to September 2021



Source: *FEWS NET*

FEWS NET classification is IPC-compatible. IPC-compatible analysis follows key IPC protocols but does not necessarily reflect the consensus of national food security partners.

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 eight months. Learn more here.