Minimal (IPC Phase 1) and Stressed (IPC Phase 2) outcomes likely to be sustained in 2019
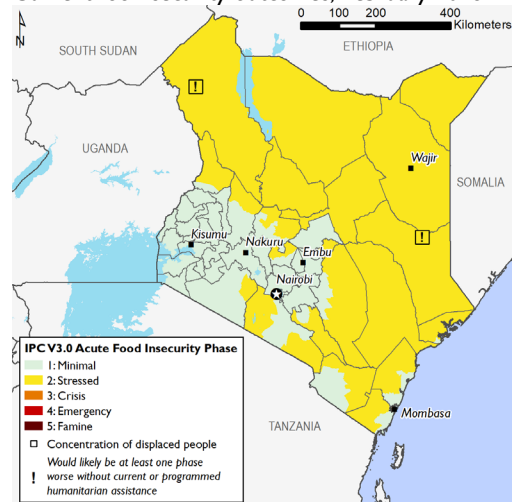
KEY MESSAGES

- Due to the positive impacts of the preceding above-average 2018 long rains season that persist nationwide, Minimal (IPC Phase 1) and Stressed (IPC Phase 2) outcomes prevail in Kenya despite mixed 2018 short rains performance. Carryover long rains stocks and favorable terms of trade are maintaining household food availability and food access. Forecast average March to May 2019 long rains in eastern Kenya and above-average long rains in western, unimodal areas is expected to result in normal crop and livestock production, improving more areas to Minimal (IPC Phase 1) through September.

- In marginal agricultural areas, short rains maize production was 55 to 65 percent below the five-year average, driving Stressed (IPC Phase 2) outcomes. Due to the availability of carryover stocks combined with short rains production, however, household maize stocks are only 21 percent below the five-year average in the southeast and 22 percent above average along the coast. Given likely average agricultural labor demand and average long rains harvests in 2019, most marginal agricultural livelihood zones are expected to improve to Minimal (IPC Phase 1) through September. However, in areas where the long rains harvest is more minimal, Stressed (IPC Phase 2) outcomes are likely to be sustained.

Current food security outcomes, February 2018

IPC V3.0 Acute Food Insecurity Phase
- 1: Minimal
- 2: Stressed
- 3: Crisis
- 4: Emergency
- 5: Famine
- ☐ Concentration of displaced people
- *Would likely be at least one phase worse without current or programmed humanitarian assistance*

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.

- In pastoral Kenya, livestock body conditions and milk production are declining but generally remain better than normal for the dry season, while above-average goat-to-maize terms of trade in most reference markets is sustaining household purchasing power. The expected average long rains are expected to lead to seasonal improvements in livestock productivity, permitting most households to meet their minimum food needs through the peak of lean season in September. As a result, most livelihood zones are expected to sustain Stressed (IPC Phase 2) outcomes, though some households in eastern, northern, and northwestern pastoral areas are likely to be in Crisis (IPC Phase 3).
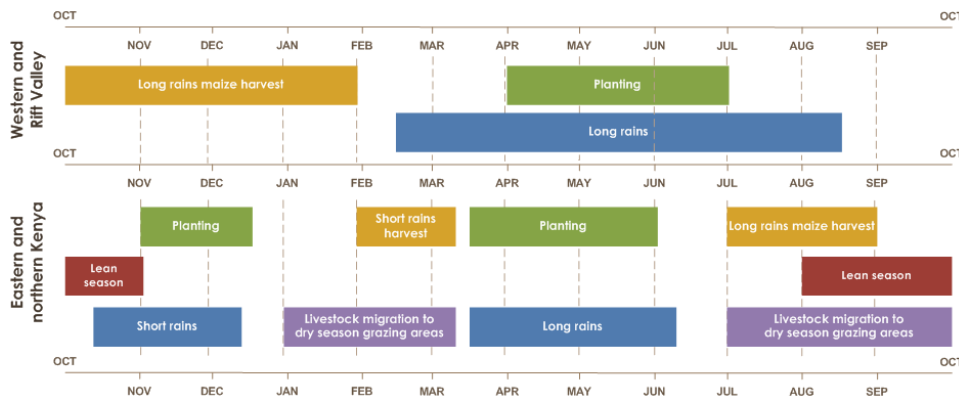
SEASONAL CALENDAR FOR A TYPICAL YEAR

Source: *FEWS NET*
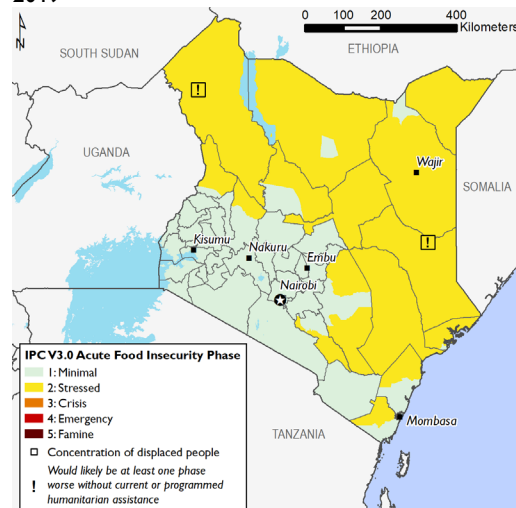
NATIONAL OVERVIEW

Current Situation

Seasonal performance: The October to December short rains were delayed and poorly distributed in many areas of Kenya, resulting in highly mixed rainfall accumulation that led to below-average crop performance and inadequate replenishment of rangeland resources. In the eastern, northern and northwestern parts of the country, rainfall was below average, ranging from 51 to 90 percent of normal (Figure 1). In parts of the northwest, south, and northeast, including the Rift Valley, rainfall performance ranged from 91 to 140 percent of normal. Some localized areas received heavy amounts exceeding 141 percent of normal. Despite strong cumulative rainfall totals in areas such as central Turkana, the start of season and timing of rainfall distribution was poor in most areas. Rainfall onset was 10-30 days late in the south and northeast areas, and more than 40 days late in the coastal and pastoral areas. However, the onset of the rains was timely in western Kenya. Further, the season was marked by false onsets and dry spells, with most rainfall occurring in early to mid-December. This had a significant negative impact on cropping zones, and particularly short-rains dependent cropping zones, including southeastern marginal agricultural areas. Rainfall ceased early in the second dekad of December, and hotter-than-than normal land surface temperatures have prevailed in the dry season.

Crop production: Short rains crop production is near completion and estimated to be below average, driven by delayed or below-average rainfall that resulted in crop failure and replanting of non-certified seeds. However, carryover stocks from 2018 long rains production is mitigating the impact on household food availability. Maize production is 55 and 65 percent below the five-year average in southeastern and coastal marginal agricultural areas, respectively. Cowpea and green grams production in coastal areas was similarly 67 and 51 below average, respectively, but cowpea and green gram production shortfalls in the southeast were less severe at 30 percent below average. In the southeast, the relatively better yields of green grams and cowpeas compared to maize is attributed to the shorter growing cycle, the timing of which coincided with the shortened period of the rainy season. Due to the availability of carryover stocks combined with short rains production, household maize stocks are only 21 percent below the five-year average in the southeast and 22

Projected food security outcomes, February to May 2019

Source: *FEWS NET*

Projected food security outcomes, June to September 2019
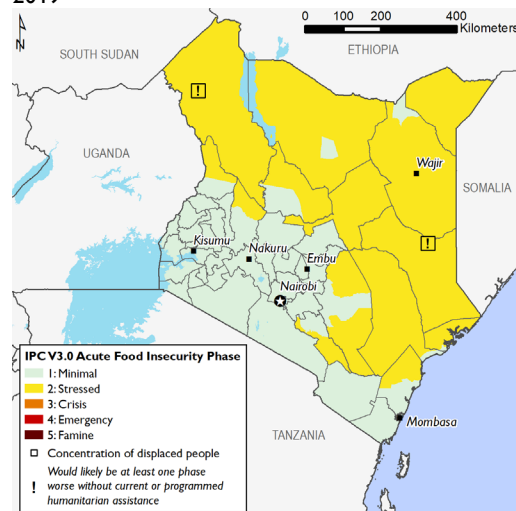
Source: *FEWS NET*

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.

percent above average along the coast. Agricultural wage labor opportunities are below average in most marginal agricultural areas apart from Meru and Embu, where labor demand for *miraa* production remains high. For households dependent on labor to finance food purchases, below-average income is constraining food access.

Livestock production: Following notable declines in vegetation conditions earlier in the short rains season, December rainfall drove significant improvements and recovery to seasonal levels in some areas. As indicated by the proxy indicator Normalized Difference Vegetation Index (NDVI), vegetation conditions compared to average (2003-2017) remain generally average to above average in the north and along the coast and below average elsewhere (Figure 2). However, above average land surface temperatures since the onset of the dry season has driven forage deterioration, and current field reports indicate pasture and browse quality is below average in Garissa and Wajir, average in Mandera, Marsabit, and Turkana, and above average in Isiolo. The main water sources in use are rivers, boreholes but surface water sources like pans, dams and shallow wells are declining. Livestock trekking distances to water sources from grazing areas exhibited a rising trend in February, and were 30

percent above average in Turkana, Garissa, and Mandera. In Marsabit and Isiolo, distances increased to 15-30 km and 10-15 km compared to the normal 10-15 and 5-10 km, respectively. As a result, livestock body conditions among grazers (cattle and sheep) are poor in Mandera, fair to poor in Turkana and Tana River, fair to good in Marsabit, Garissa, and Wajir, and good in Isiolo. Browsers (goats) body conditions were fair to good in Wajir, Garissa, and Isiolo and good in Mandera, Marsabit, and Turkana.

Conception and birth rates are at normal levels with livestock currently in calf, driven by improvements in the 2018 long rains season and maintained by the lasting forage and water resources even with the poor performance of the short rains. However, milk production is declining with resource availability and deterioration in body conditions, as well as earlier-than-normal livestock production. In February, production at the household level was lowest in Tana River at less than one litre per day, while in Marsabit, Garissa, and Wajir, production ranged from one to three litres compared to two to six litres. Production remained average at two litres in Isiolo and four litres in Turkana and Mandera.

Markets and trade: Wholesale maize prices remained well below average in February, driven by high carryover stocks from the 2017-2018 season, availability of 2018 long rains harvests from high and medium producing areas of the Rift Valley and Western Kenya, and significant but declining cross border imports from Tanzania. Across urban reference markets, prices were 18-32 percent below the 2018 average and 16-31 percent below the five-year average. In rural marginal agricultural markets, maize prices remain within average in Kwale and Kilifi due to the ongoing harvests and the preference for sifted maize flour, respectively, but remain 19-24 percent below average in the remaining marginal agricultural counties due to available ongoing maize harvests and available substitutes like sorghum and millet and mainly imports from the high and medium producing areas of Rift Valley and Western Kenya. In pastoral markets, maize prices are 8, 18 and 22 percent below average in Samburu, Marsabit and Turkana, with domestic supply flowing to Samburu and Turkana and cross-border imports from Ethiopia to Marsabit. Prices remained near-average in Wajir due to stable demand and preference for rice, pasta and sifted flour as substitutes. In other pastoral markets, rising local demand has modestly increased prices to 6-12 percent above average, but prices were 47 percent above average in Tana River due to early depleted stocks. Livestock prices were within average in Garissa and Tana River due to declining body conditions but were 7-42 percent above the five-year averages across the rest of the pastoral markets, due to the mostly average livestock body conditions and reduced supply of livestock volumes to the markets due to atypical migration increasing demand.

Interannual Assistance: In Turkana, Marsabit, Wajir and Mandera the hunger safety net program (HSNP) continues to support about 100,000 vulnerable households with a potential for emergency scale ups in intense drought situations. The world food program's (WFP) asset creation program continues across the arid and semi-arid counties providing income to households in non-harvest months to help build their resilience.

Conflict and Insecurity: In Marsabit conflicts were reported in Saku Sub County (Jaldesa, Kubi Qallo, and Sagante), North Horr (Forolle, Bales Saru) Moyale Township and settlements along Kenya/Ethiopia Border.   In Kitui, here is tension in areas bordering Tana-River County following a high influx of livestock from the neighbouring county.In Isiolo, border disputes and communal tensions still persist along the Isiolo-Garissa border in Eldera Centre and Duse-Kinna areas, which forced

Figure 1. CHIRPS seasonal rainfall accumulation as a percent of normal compared to 1981-2010 average, October 1 – December 31, 2018
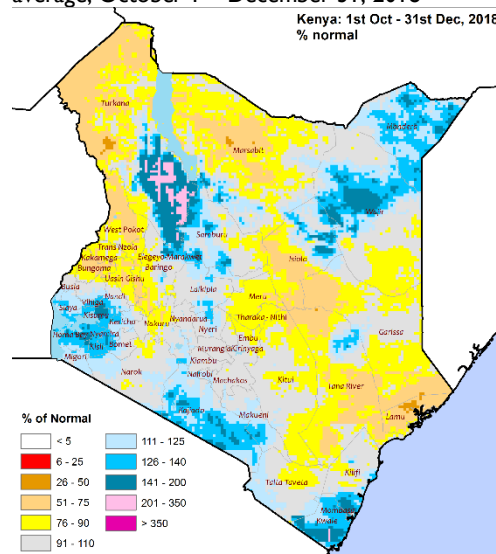
Source: *FEWS NET/USGS*

Figure 2. eMODIS Normalized Difference Vegetation Index, percent of 2003-2017 median, February 21–28, 2019
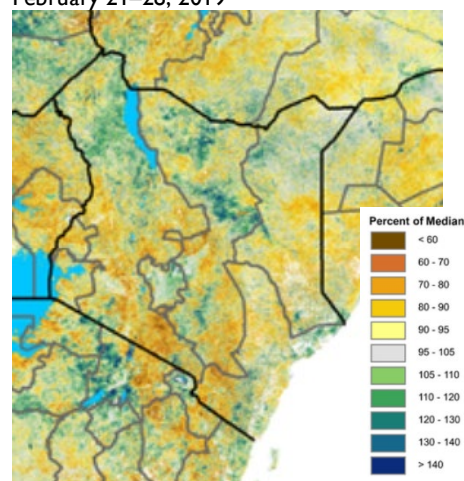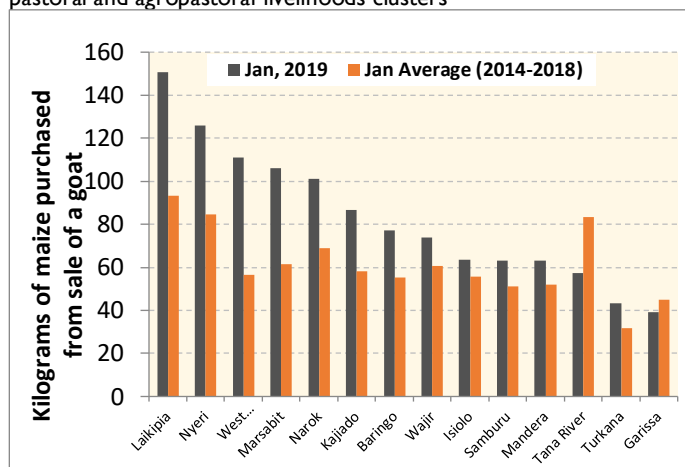

Source: *FEWS NET/USGS*

households to flee and seek refuge in Garbatulla Centre. In Taita Taveta, the presence of herds of camels from other areas was reported near community settlement areas in Sagalla and Mwatate wards, Sagalla Ward community members staged a peaceful demonstration protesting increased destruction of food crops by marauding elephants.

Most households in the pastoral and marginal agricultural areas at the moment are currently able to meet their minimum food needs due to ongoing short rains harvests. Though these harvests are largely below average, carryover stocks from the long rains harvests are still available at household level and are stabilizing household food security. In the pastoral areas, near average milk production and above average terms of trade have improved household food availability and

Figure 3. Comparative terms of trade in counties belonging to pastoral and agropastoral livelihoods clusters

Source: *NDMA*

access (Figure 3). Parts of West Pokot, Baringo, Laikipia, Meru, Embu (Mbeere), Kitui, Makueni, Kajiado, Narok, Taita Taveta, Kwale and Kilifi are in Minimal (IPC Phase 1) with the rest of the areas classified as Stressed (IPC Phase 2). However, some households in Tana River, Turkana, Marsabit, Wajir and Garissa are facing Crisis (IPC Phase 3) outcomes however, these households are not enough to reach the 20 percent threshold for an area classification. In December, consumption coping strategies measured by the reduced coping strategies index (rCSI) indicated mixed trends across the country, with a general decreasing trend in application of the consumption-based coping strategies except in Kwale, Makueni, Tharaka and Nyeri where it is likely that household food stocks are dwindling. According to the January NDMA sentinel site data, the proportion of children at risk of malnutrition measured by Middle Upper Arm Circumference <135mm remained stable in Mandera, Garissa, Nyeri (Kieni) and Kitui stabilized by ongoing harvests and milk consumption and below average in the rest of the counties implying an improved nutrition status except in Makueni and Kwale, where the proportion at risk is nine percent above average and almost double the five-year average respectively.

Refugee settlements: As of January 2019, there were about 475,000 registered refugees and asylum seekers hosted in the urban areas and in the Dadaab and Kakuma refugee camps. About 84 percent of these refugees live in the camps and 16 percent live in the urban areas The UN refugee agency, united nations high commission for refugees (UNHCR), financial requirements for 2019 as of January 2019 were amounting to USD 170.1 million and were only four percent funded. However, UNHCR together with donor and humanitarian agencies will continue to fund prioritized activities as required.
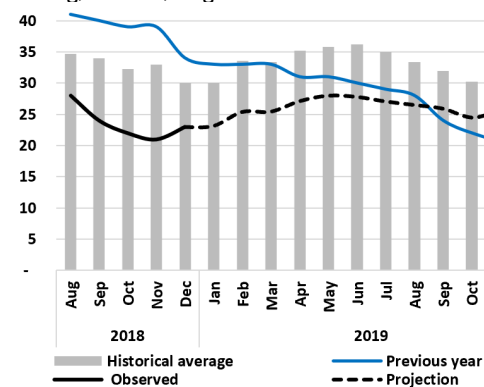
Assumptions

The February to September 2019 most likely scenario is based on the following national-level assumptions:

- The CPC/IRI probabilistic forecast indicates the presence of weak El Niño conditions and a neutral Indian Ocean Dipole through May. Impacts are likely to be weaker compared to other El Niño events. Cumulative rainfall during the **March to May 2019 long rains season** in eastern Kenya is most likely to be average. **Main season (February to August 2019) rainfall** in western, unimodal Kenya is most likely to be above average.

- According to NDMA and FEWS NET's estimates, **2019 short rains production in marginal agricultural areas** is expected to be below average, particularly in the southeast, due to erratic, below-average short rains performance. Maize will be most significantly affected and is estimated to be 15-25 percent below average. Production of green grams, cowpeas, sorghum, and millet is expected to be about 30 percent below the five-year average.

- Based on forecast average 2019 long rains and corresponding average regeneration of rangeland resources, water, pasture, and forage resources are expected to steadily deteriorate through March but then rebound from April to June. Resource availability is likely to decline from June to September.

- In marginal agricultural livelihood zones, agricultural labor demand during the short rains harvest is expected to remain below average in February due to projected below-average production, particularly in the southeast. Labor demand is

expected to rebound to average levels in late-February and March in anticipation of average March to May long rains performance. Wages are expected to remain stable and average, based on historical trends.

- Due to average conception rates during the short rains season, a medium level of calving, kidding, and lambing is expected in April in most pastoral areas. However, conception was below-average in some rainfall deficit areas, and a low level of births is expected in areas of concern. Given medium to low livestock births, demand for herding labor and other livestock-related services will likely be average to below-average from February to September.

- Based on above-average 2018 long rains production and anticipated stable regional imports, **maize prices** in Nairobi are expected to follow seasonal trends at depressed levels. Prices are likely to range from 19 to 24 percent below the five-year average, increasing from KES 25/kg in February to a seasonal peak of KES 28/kg in May and June, then decreasing marginally to KES 26/kg in September. Dry **bean prices** will remain comparatively high in the structurally deficit Kenyan market. Regional imports are expected to keep prices near the five-year average, however, likely ranging from 65 to 74 KES/kg and following seasonal trends. Prices in rural reference markets are also expected to remain below average in most marginal agricultural areas.

Figure 4. Observed and projected maize prices in KES/kg, Nairobi, Aug. 2018 – Oct. 2019

Source: *data from NDMA; FEWS NET projection*

- Due to the impact of deteriorating rangeland conditions on livestock body conditions and value, **livestock prices** are expected to remain below the 2018 average through September. However, restricted market supply driven by seasonal restocking is likely to stabilize prices at near-average to slightly above-average levels, and prices are likely to follow seasonal trends through September.

- **Inter-annual and emergency food assistance** implemented by multilateral donors and national and county governments are planned, funded, and likely to continue at current levels. These include HSNP, asset creation programs, supplementary feeding, and relief food distribution. Following the results of the KFSSG Short Rains Assessment and IPC analysis in March, planned humanitarian assistance is likely to increase from March through September.

Most Likely Food Security Outcomes

Pastoral Areas

From February to May, pastoral livelihood zones are expected to remain Stressed (IPC Phase 2). However, an elevated number of households in Turkana, Wajir, Garissa, and Marsabit are likely to experience Crisis (IPC Phase 3) outcomes at the peak of the January to March dry season, particularly among poor households. In the remainder of the dry season, deteriorating forage and water resources are likely to drive some atypical migration patterns, heightening resource–based conflict in dry season grazing areas. Reduced access to water and dry pasture is expected to lead to declines in livestock body conditions and milk production, and poor households with low herd sizes are most likely to experience food consumption gaps as a result. However, near- to slightly above-average livestock prices and low staple food prices will enable most other households to continue to purchase sufficient quantities of food. With the onset of the long rains in March, food security is expected to seasonally improve. Replenished forage and water resources will lead to the return of livestock to wet season grazing areas near the homestead and to improved body conditions, boosting livestock value and milk productivity. Given anticipated average lambing and kidding, household milk availability is likely to be average, which will improve nutrition and income from milk sales to typical levels. Average livestock-related labor opportunities are also expected to contribute to average household income levels. Although households may sell fewer livestock due to seasonal restocking efforts, stable livestock and food prices will drive favorable terms of trade, facilitating food access through June and increased households that were in Crisis (IPC Phase 3) in in Turkana, Wajir, Garissa, and Marsabit are expected to improve to Stressed (IPC Phase2). The lingering positive effects of the short rains is expected to contribute to the stability of wasting levels however, a slight seasonal deterioration in level of acute malnutrition is likely in February owing to reduced milk access at the peak of dry season and due to seasonal increase of waterborne diseases that will come with the start of long rain in mid-late March.

From June to September, Stressed (IPC Phase 2) outcomes are expected to prevail across the pastoral areas as forage and water resources decline seasonally. In July, seasonal migration is expected to occur, leading to an increase in resource-based conflict and declines in milk productivity and availability at the homestead. Herding labor demand is expected to be above average following increased livestock births from previous seasons improving household income and food access. Livestock body conditions are expected to decline seasonally and remain within seasonal levels, maintaining average income from milk and livestock sales. However, households are expected to increasingly rely on stressed consumption and livelihood coping strategies to meet their food needs once the lean season begins in August, driving Stressed (IPC Phase 2) outcomes. Typical, Critical (GAM 15-29.9 percent) levels of acute malnutrition are likely to be sustained in Mandera, Wajir, Turkana, and Samburu counties, and in parts of Baringo and Marsabit counties, primarily driven by chronic issues that include non-food security related factors, such as poor childcare feeding practices and limited access to health facilities.

Marginal Agricultural Areas

From February to May, below-average short rains production is expected to lead to Stressed (IPC Phase 2) outcomes in Makueni, Meru North, Lamu, Tharaka Nithi (Tharaka), Nyeri (Kieni), Kitui, Taita Taveta, Kwale and Kilifi. In addition to below-average maize harvests, drought-tolerant crops, like green grams, sorghum and millet, are also expected to be below-average, which is worse than previously anticipated. This is due to earlier losses incurred as a result of dry spells during the planting stages and replanting of smaller areas. As a result, household maize stocks are likely to be depleted by April in the southeast marginal areas and by June in the coastal marginal areas, reducing food consumption and dietary diversity. Below-average agricultural wage labor opportunities will reduce household income in February, increasing household reliance on normal coping strategies such as charcoal sales, remittances, and petty trade, though some may also increase their reliance on consumption-based coping strategies. In March, however, planting activities and agricultural labor opportunities during the long rains season is anticipated to improve household income to average levels. Given poor availability of seeds from the preceding season and limited incomes, area planted for long rains production is likely to be normal. Replenished forage and water resources will improve livestock body conditions, milk production, and livestock prices to average levels. During this period, households will continue to rely on market purchases, but below-average staple food prices is anticipated to sustain average to above-average terms of trade and maintain food access. In May, short-cycle crops will become available, boosting food consumption and dietary diversity at the household level and offering harvest wage labor opportunities. Malnutrition levels are likely to remain within 'Acceptable' (GAM WHZ <5 percent or MUAC <6 percent) levels.

From June to September, poor households will rely on own crop and livestock production and long rains harvest labor opportunities to meet their food needs. In July, the long rains harvest will increase household food availability and consumption, improving food security. The long rains harvest will be available from July providing income and food at household level. More areas in Makueni, Kitui, Taita Taveta, Kwale, Kilifi, Tharaka and Nyeri (Kieni) are likely to improve to Minimal (IPC Phase 1), and some parts where crop production is below average are likely to experience remain Stressed (IPC Phase 2). The long rains harvest in July to August, however, comprises only about 30 percent of the total annual crop production in marginal agricultural areas. Most households are expected to sell their crops at once to obtain income, driving a momentary staple food glut in the markets and a drop in staple food prices. Though excess supply reduces household income from crop sales, prices are anticipated to stay low, enabling food access. Household food stocks are likely to last through September, leading to seasonal declines in food availability, but most will continue to meet their minimum food needs via market purchases, supported mainly by low staple food prices.

In refugee settlements, humanitarian assistance is planned, funded and likely throughout the scenario period. As a result, most refugees sheltering in the refugee camps will remain Stressed! (IPC Phase 2!)

AREAS OF CONCERN

Eastern Pastoral Livelihood Zone

Current Situation

Short rains performance in Eastern Pastoral livelihood zone was mixed. The rains had a late onset with relatively fair temporal distribution, such that rainfall was less than 55 percent of normal in early December in most areas. However, moderate to heavy rainfall in mid-December improved cumulative totals to 51-90 percent of average in parts of Isiolo South, Wajir South, and northern Garissa, and to 91-110 percent of average in the remainder of the livelihood zone (Figure 1). Late rainfall

partially recharged water sources, extending water availability. In February, surface water sources were again drying up, and
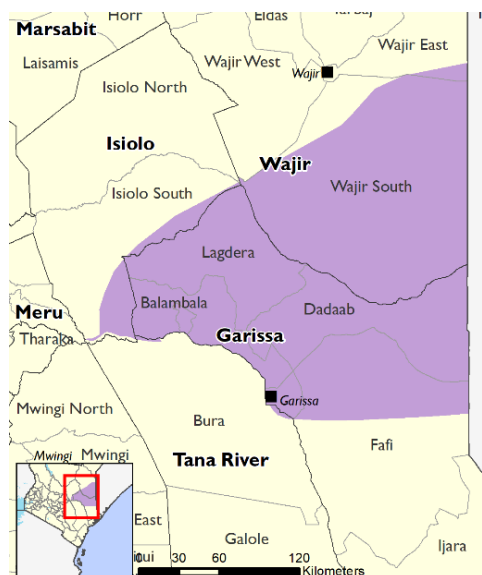
most households are primarily relying on boreholes and rivers. Access to water for domestic use measured by return trekking distances was within average in Isiolo, but were above average at seven kilometers (km) in Wajir and Garissa. Trekking distances for livestock to water sources, however, are 30-50 percent above average at 10-15 km in Isiolo and 15-20 kilometers in Wajir and Garissa.

According to satellite-derived data, including the Normalized Differentiated Vegetation Index (NDVI), the Water Requirement Satisfaction Index (WRSI), and the Vegetation Condition Index (VCI), vegetation conditions are declining and exhibit a moderate deficit. According to field observations by NDMA and FEWS NET in the February 2019 short rains assessment, forage is generally better than normal for the dry season in Isiolo but below average in Wajir and Garissa. Pasture and browse range from fair to good in Isiolo and are likely to last through April, while in Wajir, pasture and browse range from fair to poor and are projected to be depleted by late April. In Garissa, however, pasture and browse is expected to be depleted by the end of March. As a result, livestock body conditions in February ranged from good to fair and are generally better than normal for the dry season, though below-average conditions have been observed in Garissa and Wajir. No major livestock disease outbreaks were reported. However, there were suspected cases of La Peste des Petit Ruminants (PPR), contagious caprine pleuropneumonia (CCPP) and Brucellosis reported in Wajir, incidences of East Coast Fever (ECF) and Trypanosomiasis in Isiolo and incidences of Contagious Bovine Pleuropneumonia (CBPP), CCPP, lumpy skin disease (LSD), sheep and goat pox and PPR in Garissa.

Given adequately regenerated pasture and browse in neighboring areas, atypical livestock out-migration has been witnessed from Garissa into Wajir, Tana River, Meru, Lamu, and Isiolo counties and Somalia. There has similarly been notable migration within Isiolo, Wajir South, and Wajir West together with in-migration from Mandera. In-migration to Isiolo was also witnessed as herders from Wajir, Marsabit, and Garissa were reportedly advancing towards drought grazing reserves in Isiolo North sub-county. Conflict over rangeland resources and administrative boundaries have occurred in parts of Wajir (Wajir North, Eldas, and Wajir West sub counties) that

Figure 4. Area of concern reference map, Eastern Pastoral livelihood zone

Source: *FEWS NET*

Figure 5: Observed and projected goat prices in KES/kg, Garissa, Aug. 2018 – Oct. 2019

Source: *FEWS NET*

led to four fatalities and has restricted access to pasture and browse, water, and veterinary services. In Isiolo, border disputes and tensions were reported along the Isiolo - Garissa borders in Eldera Centre, Duse, and Kinna areas that resulted in the displacement of 47 households and closure of three primary schools. In Garissa, the continuous threat of terrorism prevails in Hulugho, Dadaab, and Fafi sub-counties, restricting access to rangeland resources and constraining market operations and humanitarian assistance efforts.
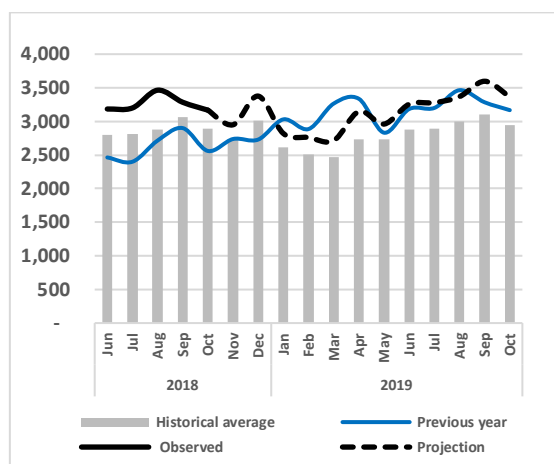
According to data collected by NDMA and FEWS NET in the short rains assessment, livestock herd sizes still remain low among poor households, ranging from two to four tropical livestock units (TLUs)[1] compared to an average four to eight TLUs. However, birth rates that were previously below average have improved to normal levels, maintained by forage and water resources that carried over from the March to May 2018 long rains season. Households generally reported a normal number

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[1] Tropical livestock units are livestock numbers converted to a common unit. Conversion factors are: cattle = 0.7, sheep = 0.1, goats = 0.1, pigs = 0.2, chicken = 0.01.

of livestock sales, and livestock wage labor opportunities are also at typical levels. Given current rangeland resources and body conditions, milk production is decreasing and below average in Garissa and Wajir at 2.5 liters compared to five, but remains average at two liters in Isiolo. This is being prioritized for consumption at the household level. Consequently, livestock product sales, which are driven by milk sales and typically provide about 20 percent of household income, are below average. With milk available to many households for consumption, supply and demand are mostly stable. Milk prices are near the five-year average in Isiolo and Wajir at KES 60 per liter, but range from KES 60-80 in Garissa compared to the average of KES 80.

Household purchasing power denoting food access is varied within the zone, with declines observed in Garissa. Maize prices in January remained near average in Wajir due to preference for substitutes. However, prices were 11-13 percent above average in Isiolo and Garissa due to below-average short rains crop production in local agropastoral areas and in neighboring markets like Meru. Livestock prices remained near the five-year average in Garissa despite declining forage and body conditions, but were 15 and 26 percent above average in Wajir and Isiolo, respectively, given that livestock body conditions are currently better than normal for the dry season. As a result, the goat-to-maize terms of trade is 14 percent below average in Garissa at 39 kg due to high maize prices, while the terms of trade are near average in Wajir at 74 kg and 14 percent above average in Isiolo at 64 kg due to high livestock prices. However, away from the urban areas, households are mainly dependent on sifted maize flour as a staple, which continues to maintain fairly stable prices, as opposed to grain maize.

According to the February 2019 SMART survey carried out by the government of Kenya and partners in Isiolo, 87.6 percent of households have acceptable food consumption score (FCS), while 10.2 percent have borderline FCS and 2.2 percent have poor FCS. Household dietary diversity increased compared to February 2018, with 59.3 percent of households consuming food from more than five groups and only 6.3 percent of households consuming foods from less than three food groups. However, the reduced coping strategies index (rCSI) increased slightly to 18.7 compared to 17.8 in 2018. According to the February 2019 SMART Survey, the current GAM prevalence is 'Alert' at 9.2 percent (95% C.I. 6.6-12.6) and SAM prevalence at 0.7 percent (95% C.I. 0.2 - 2.4), which shows a significant improvement in malnutrition status with GAM rates declining from 13.8 percent in the previous year.

In Garissa and Wajir, field data from the short rains assessment indicates meal frequency is average at two to three meals per day, consisting of starch, vegetables, dairy products, sugar, pulses, oil and meat and indicating mostly acceptable food consumption. The average rCSI score collected at NDMA sentinel sites was 8.6 in Isiolo, 6.5 in Garissa, and 15 in Wajir. Currently, according to NDMA sentinel site data collected in January, the proportion of children under five years of age considered at risk of malnutrition, measured by Mid-Upper Arm Circumference <135mm, was 14.3, 12.7, and 8.9 in Garissa, Wajir, and Isiolo counties, respectively, which was six percent above the five-year average in Garissa but 26 and 48 percent below average in Wajir and Isiolo.

Despite the improvements brought about by the December rains, poor households are still unable to afford some essential non-food expenditures and are employing a range of stressed consumption and livelihoods coping strategies, which is indicative of Stressed (IPC Phase 2) outcomes. Households in Garissa face rising staple food prices, while conflict and insecurity are limiting market access in other areas. Given below-average income from reduced milk volumes for sale, households are expanding their reliance on petty trade, remittances, and charcoal/firewood sales to above-average levels. Interannual assistance through food aid, asset creation, and school feeding programs also remains at average levels. Commonly employed coping mechanisms over the period included reliance on less preferred and or expensive food, reduction of the number of meals eaten in a day, and limiting portion size at meal times, with the rest being applied at a lesser intensity. Current livelihood coping strategies being employed are purchase of food on credit, sending household members to eat elsewhere, spending of savings, and borrowing money.

Assumptions

In addition to the national-level assumptions, the following assumptions have been made for Eastern Pastoral livelihood zone:

- Pasture and browse are expected to gradually become depleted through late-March, sustaining fair to good body conditions. The forecast average long rains are expected to bring seasonal improvements to forage and water resources and consequently to livestock body conditions and productivity. Conditions are likely to seasonally deteriorate at typical levels from July to September.

- Despite below-average October to December short rains, livestock births in April and May are expected to remain stable at average levels, maintained by lasting forage resources from the 2018 March to May long rains season that improved conception and birth rates during the short rains to average levels. Due to the forecast average long rains, average conception rates are expected from March to May.

- Based on FEWS NET's integrated price projections, with current low local stocks and dependence on maize supplies from external markets like Meru, **maize prices** are likely to remain 6-8 percent above average through September. Prices are expected to rise to KES 62-67 in April when household stocks are lowest, but are then likely to decline to KES 58-60 from May to September as supplies from Ethiopia and Meru become available.

- Based on FEWS NET's integrated price projections, reduced demand is expected to keep the retail **goat price** in Garissa market below the 2018 average. Given anticipated normal livestock body conditions, however, prices are likely to remain near the five-year average throughout the scenario period and are projected to follow seasonal trends, ranging from KES 2,400 to 3,000.

- Atypically early migration from Wajir South and Wajir West to the dry-season grazing grounds in search of water to neighboring Somalia, Marsabit (Moyale sub-county), and Wajir North is likely to result in **resource-based conflict incidents** from February to early April in parts of Garissa (Lagdera and Dadaab) and Wajir (Wajir West and Wajir South), where forage and water resource scarcity is likely to be relatively high. **Insecurity** is expected to persist throughout the scenario period due to persistent banditry and armed conflict along parts of Hulugho, Ijara, and Dadaab bordering Somalia, which may disrupt livelihood activities.

- **Humanitarian assistance** including inter-annual and emergency assistance implemented by multilateral donors and national and county governments including HSNP, asset creation, supplementary feeding and relief food distribution are planned, funded, and likely to continue at least at current levels. Following the results of the KFSSG Short Rains Assessment and IPC analysis in March, the levels of humanitarian assistance are likely to increase from March through the end of the scenario period in September.

Most Likely Food Security Outcomes

From February to May 2019, food security is expected to wane until the onset of long rains season after which it is expected to improve. Above-average staple food prices, especially maize, and near-average livestock prices are expected to constrain household purchasing power and food access through early April. Income from the sale of meat and milk is expected to decline with livestock body conditions and milk production, due to below-average forage and water conditions. Households are likely to expand other food and income sources like petty trade, remittances, charcoal sales, safety nets, and gifts, and are expected to utilize stressed consumption and livelihood coping strategies to obtain minimum food needs. With declining milk production, a corresponding increase in malnutrition is anticipated to seasonally typical levels of 'Critical' (GAM WHZ 15-29.9 percent) in Wajir and to 'Serious' (GAM WHZ 10-14.9 percent) in Isiolo and Garissa. Some poor households in parts of Wajir (Wajr South, Wajir West) and Garissa (Lagdera, Dadaab and Hulugho) that have been worst affected by the poor short rains season and are prone to conflict are likely to be in Crisis (IPC Phase 3), but this is unlikely to occur at the area level. The start of the projected average 2019 March to May long rains are expected to bring about improvements in forage and water resources and consequently of livestock body conditions as livestock return to wet season grazing areas close to the homestead. Near average calving, lambing and kidding is expected to occur, improving milk production and consumption at household level. Livestock prices are likely to rise and improve household food access and consumption including meat consumption from mid-April. Dietary diversity will also increase with expected average long rains short cycle crop production in May. Use of coping strategies employed at the household level are likely to decline, and increased milk production is set to seasonally improve the nutrition status of children. Some households may move into Minimal (IPC Phase 1), while some households currently in Crisis (IPC Phase 3) in parts of Wajir (Wajr South, Wajir West) and Garissa (Lagdera, Dadaab and Hulugho) are likely to improve to the Stressed (IPC Phase 2). Stressed (IPC Phase 2) area-level outcomes are expected.

From June to September 2019, Stressed (IPC Phase 2) outcomes are expected to be sustained as the lean season progresses. From July, forage and water resources are expected to seasonally decline, increasing return trekking distances to water sources for both human beings and livestock. Livestock body conditions will gradually deteriorate, reducing meat and milk production and consumption at household level. From August as the lean season sets in, declining forage and water conditions will necessitate livestock migration to dry season grazing areas away from homesteads, reducing milk availability

and consumption and thus driving increased malnutrition, especially in children below five years of age. However, household income levels are expected to remain mostly average. Livestock prices are expected to decline seasonally, but to remain near-average levels. With elevated staple food prices, however, household food access and consumption are expected to be slightly below average, necessitating consumption coping strategies such as eating less preferred food, skipping meals, borrowing food and stressed livelihoods coping strategies such as use of savings and borrowing money. However, food consumption in terms of number of meals, dietary diversity, and meal composition is expected to remain relatively normal. As a result, Stressed (IPC Phase 2) outcomes are expected, though a small proportion of vulnerable and poor households from within the livelihood zone are likely to deteriorate to Crisis (IPC Phase 3).

### Northern and Northwestern Pastoral livelihood zones

Current Situation

Erratic temporal distribution during the short rains season resulted in mixed rainfall performance in Northern and Northwestern Pastoral livelihood zones. Most areas received little to no rainfall until early December, when heavy rainfall amounts increased cumulative totals to more than 115 percent of average in central and southern parts of Turkana, northern and western Samburu, and southwestern Marsabit. However, total rainfall remained less than 85 percent of average in northern and western Turkana, northern West Pokot, northern and eastern Marsabit, and northern and eastern Samburu (Figure 1). Where rainfall was above-average, rangeland resources are currently at seasonal levels and likely to last through March. In rainfall-deficit areas, pasture and water resources are below normal levels and are likely to be depleted by March. Deterioration has been accelerated by above-average land surface temperatures since January. A locust invasion in northern and western pastoral areas of Turkana and northern pastoral areas of Marsabit also depleted an estimated 20 percent of available pasture and browse.

Figure 5. Area of concern reference map, Northern and Northwestern Pastoral livelihood zones

Source: *FEWS NET*

The decline in pasture and water resources has increased livestock trekking distances from grazing areas to watering points by an average 30-40 percent, with wide variation between areas. In Samburu, trekking distances have doubled, but distances remain unchanged in northern West Pokot. Consequently, livestock body conditions are declining at different rates. In northwestern Turkana, livestock body conditions have declined to below seasonal levels. In Marsabit, Samburu, and northern West Pokot, livestock body conditions broadly remain within seasonal levels. Given early season dryness, livestock migration began earlier than normal in December instead of January. Although initially limited to traditional dry season areas, migration has increasingly expanded across county and country borders. Livestock from northern and northwestern Turkana have migrated to dry grazing areas along the Uganda and South Sudan borders. Livestock from Marsabit have migrated to areas bordering southern Turkana and Ethiopia, while those from Samburu have migrated to the southern Turkana and Laikipia borders. Increased resource competition has stoked tensions between migrating herders and host communities, leading to conflicts that have in turn restricted access to pasture and water. Conflicts have been reported along the Samburu North and Turkana East border and in northern Marsabit, Saku, and North Horr. Conflict in settlements along the Kenyan-Ethiopian border have also restricted access to pastures in southern Ethiopia.

According to data collected by NDMA and FEWS NET in a February field assessment, livestock herd sizes continue to recover from losses during the 2016/2017 drought, but remain below average levels. Birth rates were average across species in both livelihood zones during the short rains season. Current herd sizes in TLUs compared to average among poor households are: Marsabit 1-2 (average of 2-4); Samburu 5 (average 10);[2] Turkana 2 (average 6); and West Pokot 2-3 (average 3-4). To promote herd growth and livelihoods sustainability, poor households are making an effort to limit the number livestock sales, but some are selling normal numbers of livestock in order to meet their food needs. Despite normal birth rates, deteriorating rangeland resources and body conditions have led to declines in milk production ranging from 30 to 60 percent below average across

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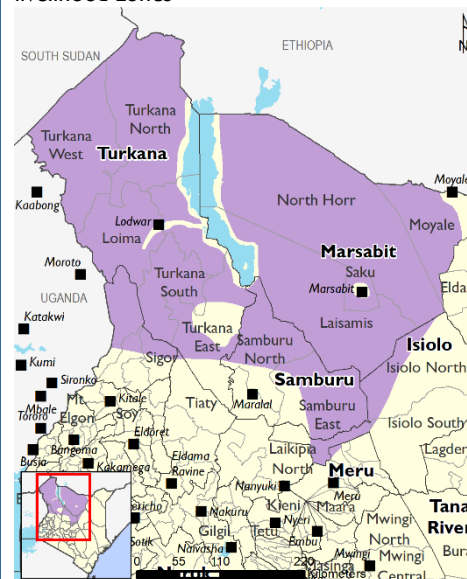
[2] A typical poor pastoral household in Samburu owns 2-5 cattle (one cattle is equivalent to 0.7 TLUs), while a typical poor pastoral household in Marsabit, Turkana, and West Pokot does not own cattle but owns small ruminants or poultry.

both livelihood zones. Households are consuming most of the milk produced with little left for sale. As a result, milk prices have increased to 50-65 percent above average in both livelihood zones, limiting milk access. In pastoral areas of Samburu, milk prices have increased by 16 percent. As a result, incomes from milk sales are below average. However, steady growth in livestock herd sizes has maintained average livestock-related wage labor opportunities.

Terms of trade continue to remain favorable. In January, goat prices declined compared to December across reference markets, a function of declining body conditions and a relative increase in supply during a typical peak sales period. However, prices continue to remain above average due to reduced total supply as herders try to improve their stock numbers to normal levels. Goat prices ranged from 14 to 42 percent above the five-year average in Northern Pastoral livelihood zone, given relatively good livestock body conditions, while prices were a modest 7 percent above the five-year average in Northwestern Pastoral livelihood zone due to fair body conditions. Meanwhile, staple food prices remain below average, driven by surplus long rains supply from high potential agricultural areas of North Rift and Western Kenya coupled with imports from Uganda and Ethiopia. In January, maize prices ranged from 10 to 25 percent below average across key reference markets. Current low staple prices and high livestock prices are maintaining above-average goat-to-maize terms of trade, sustaining high household purchasing power and access to food. In Samburu and Turkana, the terms of trade range from 24 to 38 percent above the five-year average. In West Pokot and Marsabit, the terms of trade range from 59 to 72 percent above average.

Driven by average livestock-related wage labor and above-average terms of trade, most households in both livelihood zones are currently able to meet their minimum food needs, though below-average herd sizes, low milk sales, and increased competition for rangeland resources are constraining their ability to meet their non-food needs. To supplement current food and income sources, 69,401 households in northwestern pastoral areas of Turkana and 28,588 households in northern pastoral areas of Marsabit continue to benefit from WFP's inter-annual Hunger Safety Net Program, implemented by NDMA, and the Ministry of Labor and Social Protection's National Safety Net Program. Based on an average household six, this is estimated to reach 48 percent of the Turkana population and 59 percent of the Marsabit population. According to the NDMA and FEWS NET's field assessment, many poor households continue to utilize stressed consumption coping strategies, particularly given current demand for school fees for the upcoming term. Households across both livelihood zones report reducing meal portion sizes and consuming less preferred or cheap foods, but the frequency of use of these strategies is higher in Turkana and Samburu counties. Consequently, Stressed (IPC phase 2) continue to persist. NDMA sentinel site data in January indicates that the proportion of children at risk of malnutrition, as measured by the Middle Upper Arm Circumference (MUAC) <135mm, is 10-50 percent below average in the northern pastoral areas of Marsabit, northern West Pokot, and the northwestern pastoral areas of Turkana. The proportion of children at risk in the northern pastoral areas of Samburu are average.

Assumptions

In addition to the national-level assumptions, the following assumptions have been made for Northern and Northwestern Pastoral livelihood zones:

- Depletion of pasture, browse, and water resources is expected through March. Anticipated average long rains are expected to replenish water and rangeland resource availability, driving seasonal improvements in livestock productivity from April to June. Rangeland resources are expected to decline seasonally in the dry season from July to September.

- Average to below-average birth rates are anticipated due to average conception rates in areas that received average short rains amounts and below average conception in rainfall-deficit areas. Due to the forecast average long rains, average conception rates are expected from March to May.

- Atypical livestock migration is expected to continue through March. However, given the average long rains forecast and subsequent improvements in water and rangeland resources, livestock migration is expected follow normal patterns through the remainder of the scenario period.

- Surplus long rains production and cross-border imports from Uganda and Ethiopia are anticipated to maintain below-average staple food prices. According to FEWS NET's integrated price analysis in Lodwar reference market in Turkana, maize prices in Lodwar are expected to range from 21 to 30 percent below the five-year average. Prices are projected to range from KES 55 to 63/kg, peaking in April and then gradually declining through September.

- Based on FEWS NET's integrated price analysis in Lodwar reference market in Turkana, livestock prices are expected to follow a declining trend through March driven by declining livestock body conditions, though prices are likely to remain five to seven percent above average. From April to September, prices are expected to be near-average and follow seasonal trends. In reference markets in Northern Pastoral livelihood zone, livestock prices are also likely to likely to decline and approach near-average levels through September.

- Given accelerated depletion of rangeland resources and atypical migration, resource-based conflict is likely to escalate through March. Hot spots include the southern Turkana and northern Samburu border, especially in Baragoi, and the Turkana North and South Sudan border, especially in Kibish. Conflict is expected to decline to normal levels following the onset of the long rains as livestock return to wet-season grazing areas close by their homestead.

Most Likely Food Security Outcomes

From February to May 2019, Stressed (IPC Phase 2) outcomes are expected across both livelihood zones. Poor households are expected to experience a gradual decline in income and food sources through March, driven by deteriorating livestock body conditions and value, declining milk production, and increased resource-based conflict. The onset of the long rains in late March is anticipated to usher in seasonal improvements in pasture, browse, and water availability, triggering livestock migrations back into traditional wet grazing areas. Average to below-average kidding and calving coupled with slow recovery of body conditions is anticipated to result in below-average milk production, limiting milk consumption and sales. Although favorable goat-to-maize terms of trade will benefit household food access, it is expected that most will continue to engage in stressed consumption strategies and be unable to meet all non-food expenditures. Further, the prevalence of malnutrition is likely to increase to typical 'Critical' levels (GAM WHZ 15-29.9 percent) in Turkana, Samburu, and northern Marsabit and 'Serious' in southern Marsabit and West Pokot, driven in part by a seasonal increase in consumption-based coping during the January to March lean period but primarily by non-food security factors such as disease. As a result, the number of poor households facing Crisis (IPC Phase 3) outcomes is expected to slightly increase overall, especially in northern and southern Northwestern Pastoral livelihood zone and in northern Northern Pastoral livelihood zone, where the short rains were below average and the impacts of the 2018 lean season on livelihoods was most severe.

From June to September 2019, the number of poor households facing Crisis (IPC Phase 3) outcomes is likely to increase in both livelihood zones as the lean season (July – October) progresses, but Stressed (IPC Phase 2) outcomes are expected to be maintained at the area level. Initially, livestock productivity will continue to recover through July as a result of the long rains, and households will increase livestock sales at the peak sales period in June. As the July to September lean season progresses, declines in body conditions and milk production are anticipated to be gradual. Poor households whose herds were worst affected by rainfall deficits and those in conflict-prone areas are expected to have below-average incomes, which will likely restrict their access to food. Seasonal livestock migration to dry grazing areas will reduce household milk availability from August onward. However, most poor households will rely on typical herding and other livestock wage labor opportunities in addition to livestock sales, as better off wealth groups are likely to maintain demand for labor even with average to below-average kidding rates. In addition, households with access to remittances and the ability to sell charcoal or firewood are likely to intensify reliance on these sources. Given that current surplus maize market supply is likely to last and sustained demand for livestock is likely to maintain average livestock prices during the lean season, favorable terms of trade will prevent food gaps for most households. Although the prevalence of malnutrition is likely to improve across the livelihood zones, typical 'Critical' levels (GAM WHZ 15-29.9 percent) of acute malnutrition are likely to persist as a result of reduced milk availability, though 'Serious' levels (GAM WHZ 10.0-14.9 percent) are expected in Marsabit.

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
Northern and Northwestern Pastoral livelihood zones	Above-average March to May 2019 long rains	Above average long rains will result in above average regeneration of rangeland resources, and subsequently improvements in livestock productivity, including milk and meat production. In addition, livestock prices, especially in the period from June through September, would likely improve livestock body productivity resulting in above average prices and household income, food access and food consumption. Households will be able to afford their minimum food needs and more will move into the Minimal (IPC Phase 1).

| Eastern and Southeastern Pastoral Livelihood Zones	Below-average March – May 2019 long rains	Below-average rains would lead to atypical depletion of water and range resources and a decline in livestock body conditions and productivity. A significant increase in atypical livestock migration would limit livestock-related income opportunities. An increase in resource-based conflicts would also be likely. More households in the worst affected areas would face significant food consumption gaps and face Crisis (IPC phase 3) outcomes.
Coastal Marginal Agricultural Areas	Below-average March-May 2019 long rains	Below-average or poorly distributed long rains could lead to crop losses and a reduction in agricultural labor opportunities. Consecutive seasons of below-average crop production would leave many households unable to afford some essential non-food expenditures and likely to intensify use of stressed consumption and livelihoods coping strategies. Stressed (IPC Phase 2) would be expected.
Eastern Pastoral Livelihood Zone	Upscaling of interannual humanitarian assistance programmes	Expansion of interannual humanitarian assistance to households experiencing Stressed (IPC Phase 2) or Crisis (IPC Phase 3) outcomes would reduce current livelihood protection deficits by providing a significant portion of minimum calorie needs. This would reduce current levels of consumption and livelihoods coping throughout the scenario period and could improve outcomes to Minimal (IPC Phase 1) or Stressed (IPC Phase 2).

FOOD SECURITY OUTCOMES ASSUMING NO HUMANITARIAN FOOD ASSISTANCE IN THE PROJECTION PERIOD*

Projected food security outcomes, February to May 2019
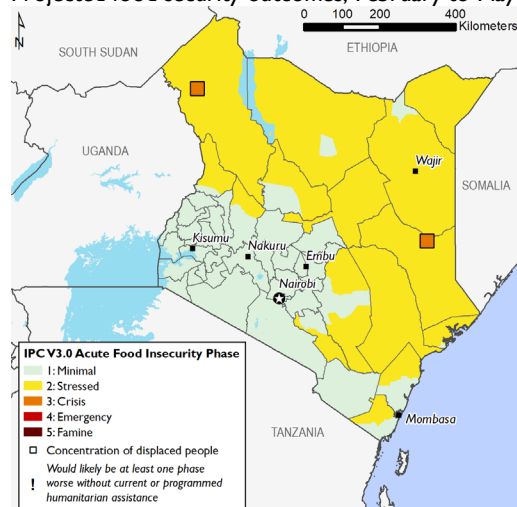
Projected food security outcomes, June to September 2019
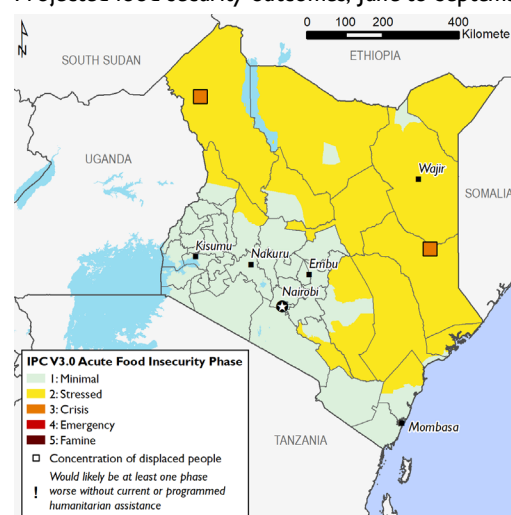
Source: *FEWS NET*

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.

Current IPC v3.0 protocols require that a second set of projection maps be created to indicate the most likely food security outcomes in the absence of the anticipated effects of humanitarian food assistance. This protocol is under review and may change.

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.