KENYA Food Security Outlook June 2017 to January 2018

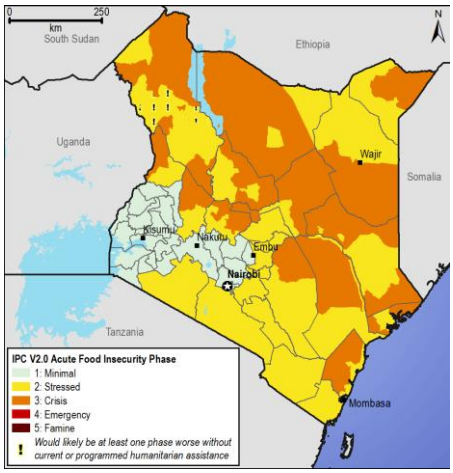
Poor 2017 long rains mark second consecutive season of drought

KEY MESSAGES

- Following significantly below-average March to May long rains across the majority of Kenya's pastoral and marginal agricultural areas, large areas of the country are experiencing Crisis (IPC Phase 3) outcomes and atypically high food assistance needs, projected to continue until at least November when the short rains season is well underway. Humanitarian assistance is ongoing in various parts of Kenya, with the scale of assistance mitigating the severity of outcomes in parts of Turkana with poor households in Stressed! (IPC Phase 2).

- In pastoral areas, partial regeneration of rangeland is expected to lead to an atypically early lean season in July. Below-average livestock productivity has kept milk production and livestock sales at low levels, limiting household income and food access due to high staple food prices. Poor households in many pastoral areas are likely to continue to face Crisis (IPC Phase 3) outcomes through January 2018. However, some localized poor households could experience worse outcomes through October in the absence of emergency food assistance.

Current food security outcomes, June 2017



Source: *FEWS NET*

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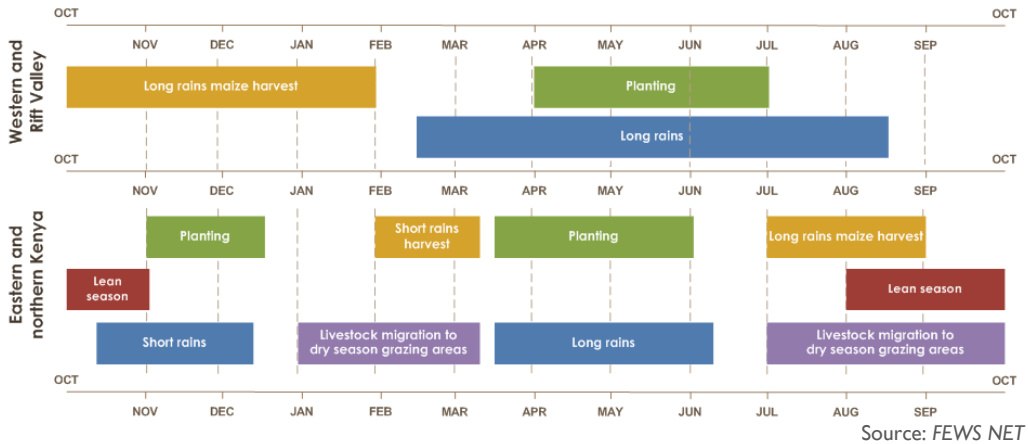
- Below-average maize production in both the high and medium-producing areas as well as the marginal agricultural areas due to below-normal rainfall and the effects of Fall Armyworm is expected. This is likely to keep staple food prices high, which are 17 – 49 percent above five-year averages in the major urban consumption markets, constraining household purchasing power. Despite the Government of Kenya's subsidies on maize flour and maize imports, prices are expected to remain high through January 2018.

- In southeastern and coastal marginal agricultural areas, crop production activities, while at below-average levels, continue to provide some income-earning opportunities, facilitating needed market purchases. The below-average long rains harvest in July is expected to provide a temporary reprieve from market dependence, but by August, supplies will be depleted and drive more poor households into Crisis (IPC Phase 3), particularly in northern Kitui and Kilifi.

SEASONAL CALENDAR FOR A TYPICAL YEAR



Source: *FEWS NET*

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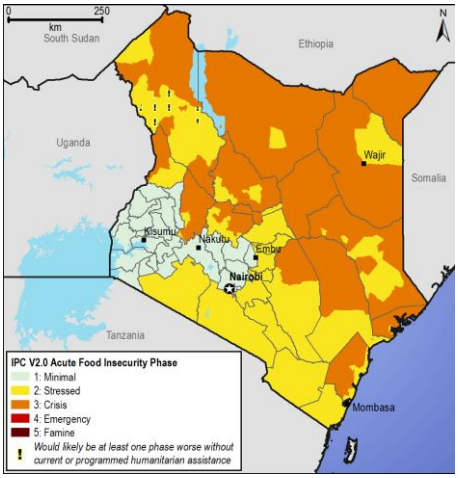
NATIONAL OVERVIEW

Current Situation

Nationally, food security is gradually declining driven by persistent high staple food prices and dwindling supplies in the face of increased demand. Below-average crop production in 2016 in Kenya and neighboring countries of Uganda and Tanzania have resulted in the low supplies and below-average cross-border imports. In a response to lower maize supplies, the Government of Kenya in May issued permits for the importation of 540,000 metric tons (MT) of maize for human consumption with an aim to improve the market supply and announced the provision of a subsidy on maize flour, regulating the price at KES 45 per kilogram to stabilize prices and improve household access to the commodity. Currently, the millers hold a majority of the stocks as they are currently engaged in the importation of maize to provide maize flour for the general public at the subsidized prices. In the urban reference markets of Nairobi, Mombasa, Eldoret, and Kisumu wholesale maize prices between the months of April and May continued to increase by up to 13 percent due to tightening supplies. Prices remained between 44 to 59 percent above five year-averages as they have atypically, steadily increased.

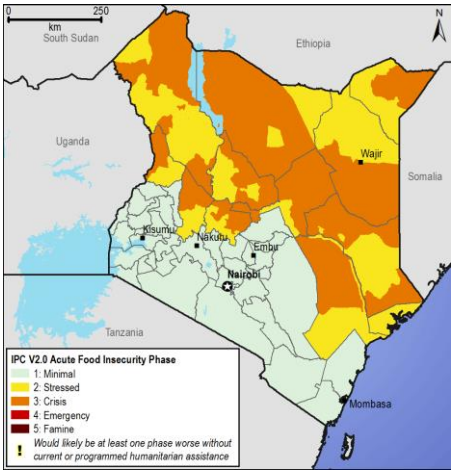
According to estimates from the State Department of Agriculture (SDA), national long rains crop production is expected to drop by 25 percent due to a combination of the effects from the late onset and generally below-average rainfall and the impact of the Fall Armyworm (FAW). FAW has affected 27 out of 47 counties, affecting about 200,000 hectares of staple food crops, which represents less than one percent of all areas planted and is quite minimal. SDA, in conjunction with the respective county governments, are currently involved in FAW prevention and control activities.

Projected food security outcomes, June to September 2017



Source: *FEWS NET*

Projected food security outcomes, October 2017 to January 2018



Source: *FEWS NET*

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In the **southeastern marginal mixed farming zone**, the March to May long rains were late by one to two dekads across the majority of the zone but were up to four dekads late in the eastern parts of Kitui County, bordering Tana River, and in southern Makueni, bordering Kajiado and Taita Taveta. Most areas received below-average rainfall, ranging from 50 – 75 percent of normal, while the northern part of Meru, bordering Isiolo, received even less at 25 – 50 percent of normal. Rainfall was better, 90 – 110 percent of normal, in lower parts of Kitui and Makueni, and even better in some isolated areas of Kitui that received 110 – 140 percent of normal rainfall. Overall, the distribution was poor both in time and space across the zone. The main food crops planted within the zone are maize, beans, millet, sorghum, cowpeas, and green grams. The main crop production activities ongoing are the first and second weeding depending on the stage of the crops. Crop conditions vary from poor to good across the zone due to the amount and distribution of the rains. Crop conditions are good in the mixed farming areas in Embu and Tharaka Nithi, and they remain fair in the mixed farming areas of Kitui and the marginal mixed farming areas of Embu. They are, however, poor in the marginal mixed farming areas of Tharaka Nithi and Kitui, such as Kitui East (Endau/Malalani), Mwingi Central (Nguni, Nuu), and Kitui South (Ikutha and Mutha). In Nyeri and Kitui, the maize crop is facing moisture stress. Fall and African armyworm attacks were reported on the maize crop in parts of Kitui (Kitui South and Mwingi West), Nyeri (Tetu and the Kirima region of Othaya), and Makueni. In Tharaka Nithi, they mostly affected sorghum and millet but were mitigated by the late season rainfall. Pulses are in good condition across the zone and are at the normal podding and flowering stages of development. Casual labor opportunities remain below average due to the poor rainfall that reduced crop production activities.

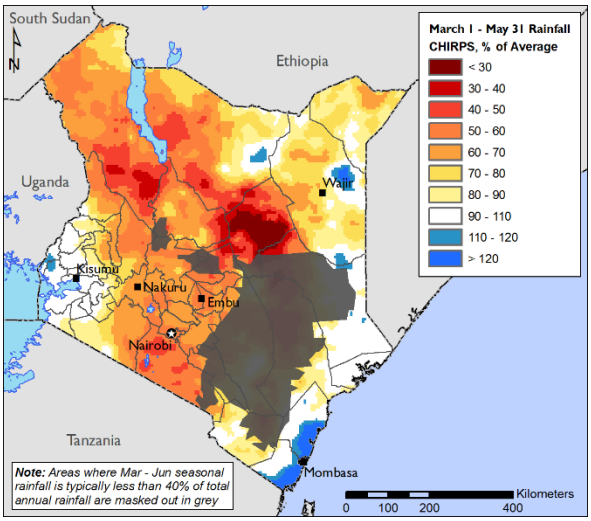
Since the long rains season is not the main production season for this zone, opportunities at this time of year are typically lower regardless. In the lowlands of Makueni, households did not attempt to plant any crops due to below-average rains. This has significantly reduced household income and purchasing power at a time of high market dependency, forcing poor households to rely on less expensive foods, decrease the number of meals per day, and reduce meal portion sizes. As a result, poor households are relying on charcoal sales, non-agricultural wage labor, petty trade, and remittances from relatives for income.

Though typical at this time of the year, households are engaging in these activities more than usual. Between April and May, maize prices in the representative markets of Kitui, Makueni, Tharaka Nithi, and Nyeri rose by 7 – 22 percent and ranged between 32 – 79 percent above the five-year averages. The rise in local prices is attributed to depleted household stocks and higher prices from the external markets of central and western Kenya and cross-border trade from Tanzania. Bean prices also rose across the zone by 6 – 25 percent and were 10 – 27 percent above five-year averages due to the depletion of household stocks.

The proportion of children "at risk" of malnutrition measured by Mid-Upper Arm Circumference (MUAC) <135 mm from the National Drought Management Authority (NDMA) sentinel sites typically range between 3 – 10 percent of children for this zone. Between March to May, the proportion of children "at risk" remained stable in Makueni and Tharaka Nithi but fell by 17 and 70 percent in Kitui and Nyeri, respectively, due to a marginal increase in milk consumption in both areas over this time period. The current proportions remain 17 – 20 percent below the five-year average in Kitui and Makueni due to the impact of recent nutrition interventions; however, they remain 78 – 81 percent above the five-year average in Tharaka Nithi and Nyeri due to an overall decrease in food and milk consumption.

In May, due to the poor regeneration of rangeland resources, there has been atypical livestock migration movements in and outside the zone. In some portions of Kitui, some households moved their livestock earlier than normal in search of water and forage. In Nyeri County, pastoralists from Laikipia, Isiolo, and Samburu have maintained their livestock here due to the below-average forage availability in their respective counties of origin. In addition, conflicts over grazing and water resources between pastoralists from Tana River and farmers were reported in Mwingi North Sub-County (Tseikuru and Ngomeni ward) and in Mwingi Central (Nguni Ward) of Kitui. Peace building and conflict management activities are ongoing to relieve tensions and address the situation. The poor short rains harvests in February 2017 led to lower household stocks, high staple food prices; while below-average long rains led to low income-earning opportunities and consequently below-average household purchasing power. As a result, poor households in the southeastern marginal mixed farming zone are able to achieve minimally adequate food consumption but cannot afford non-food expenditures and remain in Stressed (IPC Phase 2) acute food insecurity. However, in parts of Kitui (Mwingi Central and Mwingi West), poor households have experienced consecutive poor seasons and repeated conflict with pastoralists from neighboring counties that has affected their livelihoods and are facing Crisis (IPC Phase 3) outcomes.

Figure 1. March to May 2017 rainfall anomaly (percent of the 1981-2010 average



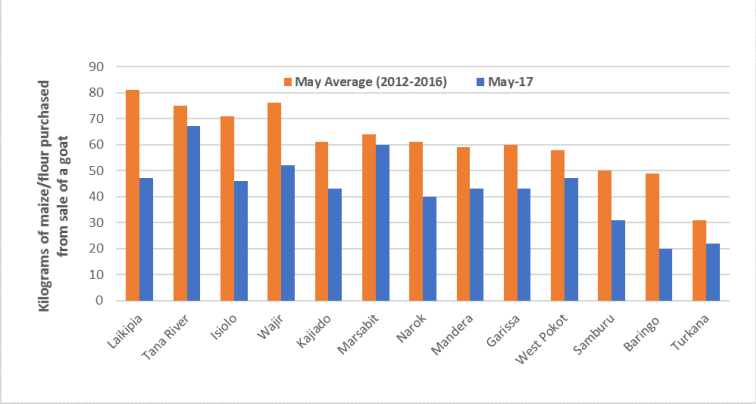
Source: *FEWS NET/USGS CHIRPS*

In the **coastal marginal mixed farming zone**, the long rains onset ranged from normal to four dekads late, and the zone received near-normal to above-normal amounts, apart from parts of Taita Taveta and northern Kilifi that received 50 – 90 percent of normal rainfall. The late onset of rains, reduced planted acreage in Taita Taveta, infestations by the Fall and African armyworm (except in Kwale), and flooding will likely result in below-average maize crop production for this zone. Reduced crop production activities caused by the late rains, which has shortened the length of the growing season, has subsequently reduced household incomes. Staple food prices range from 12 – 117 percent above five-year averages due to depleted household stocks and limited supplies from cross-border imports, and in Kilifi, three successive seasons of poor crop production. A large number of households remain in Stressed (IPC Phase 2), while those previously in Crisis (IPC Phase 3) in Kilifi (Ganze, Kaloleni, and Magarini) remain in Crisis (IPC Phase 3). (See the area of concern section for more details.)

In the **pastoral areas** that include northeastern (Mandera, Wajir, Isiolo), southeastern (Garissa, Tana River), northwestern (Turkana, Samburu, West Pokot, Baringo), northern (Marsabit), and southern (Narok, Kajiado) regions, the March to May long rains ranged from significantly below average, less than 25 percent of normal, especially in central Isiolo, to some small, isolated areas that received average to above average amounts, up to 140 percent of normal (see **Figure 1**). Rainfall ranged from 25 – 50 percent of normal across the majority of Isiolo, southern Turkana, western Marsabit, western and eastern Samburu, eastern Garissa, northern and central Tana River, and isolated pockets of Kajiado. Rainfall was better, 90 – 140 percent of normal in western parts of both Garissa and Marsabit, eastern and southern Wajir, and in pockets of Mandera, and Tana River. In other

areas, cumulative rainfall totals were about 50 – 75 percent of normal. The rains were mostly poorly distributed both spatially and temporally. Improvements in rangeland resources have been observed, particularly since May, but overall regeneration has been below average, with vegetation levels ranging between 60 – 90 percent of normal in parts of Turkana, Marsabit, Isiolo, Wajir, Tana River, portions of Garissa, Kajiado, and Narok. Poor forage, particularly pasture and water resources, have been reported in Baringo, Mandera, Tana River, Turkana, Garissa, Marsabit (Bubisa, Balesa, Dabel, Funanqumbi, Amballo, North Horr), and Kajiado (Magadi), and return trekking distances for livestock remain above average, ranging from 4 - 15 kilometers across the zone. A majority of the livestock, especially cattle, are being maintained in the dry season areas with a few remaining in homesteads.

Figure 2. Livestock-cereals terms of trade



Source: *NDMA*

The scarcity of rangeland resources resulted in additional livestock mortalities in May in Isiolo (Sericho, Cherab, and Oldonyiro wards) and Kajiado (Mosiro and Magadi). Intra and inter-county migration persists as pastoralists are forced to migrate further to dry season grazing areas and non-pastoral agricultural areas. Migration was observed from: Turkana to South Sudan; Turkana and West Pokot into Uganda; Isiolo to Marsabit; Tanzania back into Kajiado; Isiolo to Laikipia; Kajiado to Nairobi; Marsabit to Ethiopia; and Kajiado to Taita Taveta. The migration has resulted in conflicts between different pastoralist groups and wildlife, resulting in the loss of livestock and human lives. Across Isiolo, Garissa, Turkana, and Marsabit, livestock body conditions remain below average, reflecting the poor rangeland conditions. In Isiolo, all species of livestock have poor body conditions, with the worst being in Bassa, Oldonyiro and Sericho, and in Marsabit, they are particularly severe in Maikona, North Horr, Amballo, Korr, Kargi, El-Hadi, Badan Rero, Laq, Farakoren, Gas, Burgabo, Dabel, Eleborr, Barambate, Balesa, Bubisa, Turbi, and Loyangalani. In other pastoral areas of the country, body conditions remain fair for most species, which typically at this time of the year should be good. Livestock diseases remained prevalent in Baringo, Turkana, Isiolo, Garissa, Wajir, West Pokot, Kajiado, Samburu, Tana River, and Narok counties. (In Baringo, a total of 261 sheep and goats and 26 cattle died due to various diseases in the month of May.) Below-average livestock body conditions have reduced livestock productivity levels. As a result, household milk production is lower, and while it has increased seasonally, it remains below average across pastoral areas, ranging from 0.7 - 15 liters compared to typical amounts of 1 - 28 liters.

In some counties, like Isiolo, milk production is up to 90 percent below the five-year average. Household purchasing power remains low as high staple food prices and below-average livestock prices, due to low demand caused by poor body conditions, continue to constrain the goat-to-cereals terms of trade, with pastoral households purchasing less maize with the sale of a goat (see **Figure 2**).

According to a Food Security Outcome Monitoring (FSOM) exercise carried out by the World Food Programme (WFP) in May, the percentage of households with poor food consumption ranges from 0.5 – 8.3 percent across the northeastern, eastern, northern, southeastern, and southern pastoral zones, with the majority of households having acceptable food consumption. Worse food consumption was observed in households in the northwestern pastoral livelihood zone, where 41 percent of households had poor food consumption, and households were consuming one meal a day compared to two to three meals normally, consisting of a staple and vegetables. Notable consumption-based coping strategies employed by the majority of poor households in the northwestern pastoral zone during the month included reduced meal portion sizes, reliance on less preferred/less expensive foods, purchasing food on credit, skipping meals, charcoal burning, petty trade, and reliance on gifts, relief food, and remittances. The proportion of children “at risk” of malnutrition measured by Mid-Upper Arm Circumference (MUAC) < 135mm as shown by the NDMA sentinel site data between April and May ranged between 14 – 34.5 percent and showed improvement with the effects of the long rains on livestock productivity, except in Isiolo, Tana River, Turkana, and Garissa. However, due to below-average milk availability and food for consumption, the proportion “at risk” remains above the five-year averages in Kajiado, Isiolo, Garissa, Baringo, Samburu, Tana River, Narok, and Mandera. In Marsabit, Turkana, Wajir, and West Pokot, the proportion “at risk” remained below average due to increased nutrition interventions within these counties. According to recent analyses and projections carried out by the Kenya Nutrition Information Technical Working Group

(NITWG), the prevalence of global acute malnutrition (GAM) outcomes are at "Alert" (GAM weight-for-height z-score measurements, WHZ, ≥ 5 – 9.9 percent) in Marsabit (Saku and Moyale sub counties), "Serious" (GAM WHZ 10.0 – 14.9 percent) in Samburu, Tana River, and northern Wajir (Wajir North), "Critical" (GAM WHZ 15.0 – 29.9 percent) in West Pokot, Isiolo, Marsabit, Wajir, Garissa, and Baringo (East Pokot) and a portion of Turkana (Turkana West), and "Extremely Critical" (GAM WHZ ≥30 percent) in the rest of Turkana (Turkana North), Marsabit (North Horr), and Mandera counties.

Across pastoral areas, most poor households remain in Stressed (IPC Phase 2) acute food insecurity, with some portions of Turkana (Turkana Central and Loima) in Stressed! (IPC Phase 2) in the presence of humanitarian assistance, with minimally adequate food consumption, but they are unable to afford their non-food needs without the use of irreversible coping strategies. However, in other parts of Turkana, West Pokot, Baringo, Samburu, Isiolo, Marsabit, Wajir, Mandera, Garissa, and Tana River, poor households are experiencing food consumption gaps and/or are sometimes only able to meet their minimum food needs by employing unsustainable coping strategies, including distressed livestock sales and depleting household savings, and face Crisis (IPC Phase 3) outcomes.

The **Hunger Safety Net Program** (HSNP) has continued to provide regular cash transfers to households in the four counties of Wajir, Turkana, Marsabit, and Mandera, with each household receiving about USD 26 per month under both the regular and emergency phases. Approximately 101,000 households are under the regular program, and now an additional 267,000 households across the four counties are receiving cash transfers under the emergency component. Additional **humanitarian assistance** is being provided throughout the country by different actors, government and non-government entities, providing both food and non-food assistance, and there are plans for some of these to continue through September 2017. Cash transfer programs are being carried out in both the pastoral and marginal areas by the World Food Programme (WFP), World Vision, and Kenya Red Cross and are enabling vulnerable households to access food through market purchases. The most extensive assistance being provided is in Turkana County (see the area of concern for more details.) According to the United Nations Office for the Coordination of Humanitarian Affairs (UNOCHA), Kenya's appeal for humanitarian assistance in March, amounting to USD 165.8 million, that complements the Government of Kenya's response efforts, to date, has only been 19 percent funded, resulting in a significant shortfall. However, the pledged funding to date is likely to positively impact food security outcomes. Still, given the current level of information on county coverage rates and beneficiaries for these programs, including uncertainty on its implementation with respect to timing, procurements, logistics, and accessibility issues, it is difficult to determine the exact level of impact of this emergency assistance; and as a result, these programs, with the exception of those in Turkana County, were not included in FEWS NET's analysis.

Assumptions

The following assumptions have been made at the national level:

- Kenya's **unimodal rains** over the western areas of the country (February to August 2017) have been average, except in the southwestern and northwestern regions, which have experienced below-average rainfall performance, less than 80 percent of normal. Total cumulative seasonal rainfall is expected to be average to below average.

- Based on the June IRI/CPC forecast, the most likely scenario is for ENSO neutral conditions through early 2018 and a positive Indian Ocean Dipole (IOD) developing during summer and fall 2017. As a result, the **short rains** season (October to December) over eastern/central regions of Kenya is expected to be above average in terms of total cumulative rainfall and closer to near-average over more southern coastal areas. However, in western areas of the country, average to below-average cumulative rainfall is forecast.

- Wholesale **maize prices** in the representative urban consumption markets of Nairobi, Mombasa, Kisumu, and Eldoret have risen atypically over the last few months due to tight supplies in the country, against high and sustained consumer demand. The tight supplies emanate from two previous consecutive below-average production seasons and reduced imports from Tanzania and Uganda. Technical projections by FEWS NET for the key consumption market of Nairobi show that maize prices are expected to continue rising seasonably through the end of 2017, but steadily moderated by the arrival of international (Mexico) imports and imminent fresh supplies from Tanzania and Zambia. Prices are also likely to stabilize slightly between July and September, following harvesting of the long rains crop. The stability is likely to be short-lived as atypically high domestic demand is expected due to the below-average long rains production as stocks are likely to deplete faster than normal. Maize prices are expected to range between KES 4,000 – 5,000 for a 90-kg bag between June 2017 and January 2018. Prices throughout the scenario period are expected to remain above the recent five-year average levels by about 30 to 50 percent.

- The expected below-average total cumulative seasonal rainfall in the high and medium rainfall areas of Kenya is likely to result in a below-average **long rains crop production**, particularly in the North Rift, where maize has experienced stunted growth. Long rains maize production is expected to be below average for a second consecutive year, and a low carry-over stock will persist because of reduced regional cross-border trade. However, this is expected to be slightly offset by international imports of white maize from Mexico and yellow maize for animal feed, likely from Ukraine.

- The **Fall Armyworm infestation** (FAW) has affected mainly maize crop fields at the early stages of crop development in the major producing western and Rift Valley counties as well as in some parts of the agropastoral and marginal agricultural areas, impacting 27 counties and approximately 200,000 hectares. If the pest is not controlled, it could have significant impacts on total long rains crop production. Depending on climatic conditions for the short rains season and the extent of adopted pest management strategies to control the FAW, there is a possibility that the pest could also have an impact on the 2018 short rains production.

- With the below-average cumulative long rains and potential impacts of the Fall Armyworm (FAW) infestation in Kenya, there are uncertainties about the quality of the main harvest between July and September. As a result, **staple grain supplies** are expected to continue tightening. To bridge the country's grain deficits, there is likely to be an increase in grain imports from within and outside East Africa's borders. The Government of Kenya is likely to continue offering tax relief to private sector companies to import additional grain.

- Due to the poor 2016 cropping season, **household food stocks** are atypically low. In many poor farming households, they have been totally depleted. With the long rains harvested crop expected to be below average, total household stocks will remain below-normal levels throughout the scenario period.

- The 2017 **General Elections** in Kenya, slated for August 8, have result in a slowdown in economic activities since early June. Tension from electoral activities are likely to affect typical livelihood activities, particularly for vulnerable communities across various parts of the country, impeding their access to typical food and income sources. Due to this tension, humanitarian interventions in pastoral and marginal agricultural areas are also likely to be affected, as humanitarian actors are expected to temporarily suspend their activities until after the elections. In the event of an outbreak of electoral violence, displacement of vulnerable populations and disruption of food commodity flows are likely, with the potential to exacerbate the fragile national food security situation.

- According to reports by UNHCR, the repatriation of Somali refugees from **Dadaab Refugee Camp** to Somalia is expected to continue throughout the scenario period. However, due to the ongoing drought in Somalia, this exercise is likely to continue to experience some slow down, as few people are registering for repatriation. The slow repatriation efforts as well as the uncertainty over the closure of Dadaab is expected to continue exerting tension between host communities and refugee populations, with the possibility that livelihoods could be affected, constraining access to food and income for both host and refugee populations.

- In **Kakuma Refugee Camp** in Turkana County, persistent violence in South Sudan continues to result in refugee influxes. According to UNHCR as of June 19, approximately 12,000 South Sudanese refugees arrived in Kenya since the beginning of 2017, and this number is expected to continue increasing. The increased number of refugees continues to stretch the already limited humanitarian assistance resources, and the refugees are expected to face acute food consumption gaps and high malnutrition outcomes throughout the scenario period. Note, that FEWS NET's analysis does not cover refugee populations in Kenya. It is expected that the October 2015 to January 2016 long rains harvest in the West and Rift Valley will adequately stock markets through May.

Most Likely Food Security Outcomes

The **national** food security situation is set to improve slightly from June with the availability of the Msimu harvest from Tanzania, Government of Kenya sanctioned international imports, and flows of government-subsidized maize flour that will likely moderate further staple food price increases. However, thin market supplies and depleted household stocks as a result of poor 2016 crop harvests will sustain continued demand for staple food crops in the market, keeping prices above average. The projected below-average long rains harvests for both the marginal areas and for the high and medium rainfall areas are projected to temporarily stabilize the prices in July and October, respectively, with traders scrambling to stockpile supplies during the harvest months for future sales. Harvests from Uganda will also be available from August, marginally increasing the supply and stabilizing prices, especially in western areas of Kenya. Throughout the scenario period, maize prices are expected

to follow seasonal trends, albeit at elevated levels of 30 – 50 percent above average. Taking into consideration the long and short rains production, imports, post-harvest losses, and consumption and other forms of usage, SDA estimates that by the end of January 2018, Kenya will have a surplus of 727,300 MT of maize, adequate to last until February 2018 when the short rains harvest becomes available. Throughout the scenario period, with supplies from the long rains harvests and imports available at sufficient levels, Minimal (IPC Phase 1) outcomes are likely in the non-arid and semi-arid areas, as the majority of poor households are projected to be able to meet essential food and non-food needs without engaging in atypical, unsustainable strategies.

In the **southeastern and coastal marginal mixed farming zones**, food security is set to decline from the end of July as a below-average harvest is expected for the maize crop in Nyeri and Kitui due to moisture stress and in Makueni due to erratic rains that caused many farmers not to plant any crops. In Kitui, Nyeri, Tharaka Nithi, and Makueni, the effect of the Fall and African armyworm infestations will also likely result in reduced production, especially for maize. Pulses are likely to perform well and act as substitutes but overall production may still be insufficient to meet needs, reducing food availability and consumption at the household level. Reduced agricultural production in July is likely to cause a drop in staple crop sales, agricultural wage labor opportunities, and consequently household income and purchasing power. Households are expected to deplete their food stocks earlier than usual and by early August return to market dependence. However, with reduced income and high staple food prices, households will likely be forced to depend on non-agricultural labor, charcoal sales, remittances, and petty trade in order to meet essential food needs. Between August and October, low milk availability and consumption is likely to increase malnutrition, especially in children under five years of age. In September at the peak of the lean season, conflict between livestock herders and farmers and human-wildlife conflict will likely intensify in areas adjacent to the national parks, especially in Taita Taveta and Kitui counties, resulting in the destruction of farms and property, disrupting livelihood activities. Food insecurity is projected to peak in September, with additional households moving into Stressed (IPC Phase 2) and Crisis (IPC Phase 3) acute food insecurity. Between September and October, increased land preparation and planting, in anticipation of the forecasted average short rains in these zones, is expected to improve household incomes and facilitate better food access. The long rains harvest from the high rainfall areas of western Kenya and the Rift Valley will become available in markets, beginning in October, moderating staple food prices, likely improving household food access and consumption. From November, the rains are likely to improve forage and livestock productivity, increasing milk production and consumption. In December, short cycle crops will become available, improving dietary diversity and household level food availability through January 2018. Food security is expected to improve as a majority of poor households across the zone, previously in Stressed (IPC Phase 2) improve to None (IPC Phase 1), and even those in portions of northern Kitui and in Kilifi (Ganze, Kaloleni, and Magarini) previously experiencing Crisis (IPC Phase 3) outcomes are expected to improve to None (IPC Phase 1) acute food insecurity as they are able to meet essential and non-essential food needs, largely due to better labor opportunities. However, in portions of Kilifi, due to three years of poor production, it is likely that some poor household could still face Stressed (IPC Phase 2) outcomes as they rebuild their livelihoods.

In the **pastoral areas**, beginning in July, rangeland conditions are expected to atypically deteriorate at an accelerated rate due to the below-average long rains that resulted in insufficient regeneration. Livestock trekking distances will further increase, diminishing livestock productivity and making livestock more susceptible to disease and death, necessitating further migration. Resource-based conflicts are expected to occur, especially along migration corridors with expected displacement of people and loss of livestock. Food availability at the household level is expected to decline as high staple food prices persist amidst reduced incomes from livestock and milk sales. Income from livestock-related wage labor, such as herding, is expected to significantly decline as pastoralists move their remaining livestock away from the homesteads in search of forage and pasture. Throughout the scenario period, most poor households will be consuming mostly staples and vegetables, accessed from the markets, and for the most vulnerable households, there will be an increased reliance on humanitarian assistance. Acute malnutrition is expected to continue deteriorating across the pastoral areas as reduced food access, including that from livestock (milk and meat), predisposes household members, especially children, pregnant and lactating mothers, to higher malnutrition outcomes. An increase in malnutrition cases is also likely due to an expected increase in morbidity prevalence, following reduced access to water in terms of quality and quantity during the prolonged dry period through at least the beginning of October, which will predispose the population to waterborne diseases.

From August, increased reliance on coping strategies, such as charcoal sales, remittances, safety nets, and humanitarian assistance is expected to help poor households meet their minimum food needs. In between August and September, the peak of food insecurity, additional households in Turkana, West Pokot, Baringo, Samburu, Isiolo, Marsabit, Wajir, Mandera, Garissa, and Tana River are expected to move from Stressed (IPC Phase 2) to Crisis (IPC Phase 3) acute food insecurity. It is also likely some households will experience Emergency (IPC Phase 4) outcomes during this period in the absence of sustained

humanitarian assistance. In October, the projected average to above-average October to December short rains, except in northwestern and pockets of the northern pastoral areas, are expected to replenish rangeland resources and thus compel many pastoralists to move their livestock back to the homesteads. From November through January, improved livestock productivity in the areas that will receive good rainfall, with the likely exception of northwestern areas, is set to increase livestock and milk sales as households seek to restock their herds. With increased demand for livestock, this is expected to lead to higher livestock prices, providing additional income and food at the household level. Increased livestock conception and births, particularly for sheep and goats, in the months of October and November, are expected to gradually improve herd sizes for all species and provide livestock-related income-earning opportunities, such as herding. As a result, in many pastoral areas, food availability and consumption is expected to rise with increased purchasing power. As a result, dependence on remittances and safety nets are likely to drop slightly from November but will most likely remain above average, particularly in Turkana. Improvements in food and milk availability will likely boost the nutritional status of children under five and pregnant and lactating women, though the GAM prevalence is expected to remain stable at "Critical" levels (15.0 – 29.9 percent) for most of the pastoral areas, except for Tana River, Wajir North, and Samburu that are expected to be in "Serious" (10.0 – 14.9) and "Alert" (≥ 5 – 9.) in Saku and Moyale sub-counties of Marsabit through the end of the scenario period. As a result of the expected positive impacts from the short rains, particularly in the northern and eastern pastoral areas, higher incomes and increased food availability will lead to marked improvements from November onwards as many poor households facing Crisis (IPC Phase 3) outcomes are likely to improve to Stressed (IPC Phase 2) as they can meet their essential food needs. (Note, since these improvements will happen near the end of the scenario period, the change will not be reflected in the FEWS NET mapping since it shows the predominant phase classification for a four-month period.) However, some of the areas (Turkana, West Pokot, and parts of Marsabit) that potentially may experience less rainfall than other areas and the worst-affected poor households in parts of Turkana, West Pokot, Baringo, Samburu, Isiolo, Marsabit, Wajir, Mandera, Garissa, and Tana River are likely to continue to face Crisis (IPC Phase 3) acute food insecurity through January 2018 as they gradually rebuild their livelihoods.

AREAS OF CONCERN

Coastal Marginal Agricultural Mixed Farming livelihood zone

Current Situation

The onset of the March to May long rains was normal in some limited areas of the Coastal marginal mixed farming zone, but in the majority of areas it was late and initially below average. The majority of the season's rainfall occurred in May and was poorly distributed both spatially and temporally, especially in Taita Taveta and Kilifi. The total cumulative seasonal rainfall was generally average to above-average, ranging between 90 – 140 percent of normal in most parts of the zone, with some areas along the coastal strip of Kwale and Kilifi receiving 140 – 200 percent of normal, resulting in flooding. However, the northern parts of Kilifi received below-average rainfall, 75 – 90 percent of normal, while the northern and eastern parts of Taita Taveta received between 50 – 90 percent, and some isolated areas received about 25 – 90 percent of normal rainfall.

In Kwale's mixed farming areas, which had better rainfall distribution compared to other areas in the zone, crop growth is near-normal for both pulses and maize, which is at the tasselling and cob formation stage. Crop development, however, is delayed due to the late onset in the cropping areas of Kilifi and Taita Taveta where maize growth is favorable and ranges from knee height to tasselling, and in the livestock and ranching zones of all three counties where both maize and bean growth are delayed. Without off-season rains, the delayed crop might face moisture stress and experience reduced yields. Total acreage planted for maize increased by 33 percent above the five-year average in Kilifi after the County Government provided tractors to plough fields at a subsidized rate, beginning in March. Near-average planting occurred in Kwale for maize, but was about half of normal in Taita Taveta due to poorer rainfall. Fall and African armyworm infestations were reported across the zone. The most significant reported infestations were of the maize crop in Kilifi's Ganze (Bamba area), Kilifi South (Mwarakaya Ward), and Magarini Sub-Counties, amounting to 1,500 hectares, as well as 330 hectares in Kwale's main production areas of Shimba Hills, Lukore, and Kikoneni. Early to mid-May flooding also caused some crop losses across the zone, with the largest impact in Taveta Sub-County, where approximately 900 households and farms across 17 villages were affected. In spite of human-wildlife conflict cases declining in Taita Taveta as water sources recharged and forage partially regenerated, especially in Tsavo National Park; wildlife continue to prey on livestock in nearby areas.

The late onset of the rains has shortened the crop production season in the zone, leading to lower on-farm casual labor opportunities and consequently diminished household income, constraining purchasing power and food availability. Household stocks are currently only five percent of normal in Taita Taveta and negligible in Kwale and Kilifi due to the failed 2016 short

rains, rendering the poor and very poor households highly dependent on markets for food commodities. Traders hold a majority of the stocks in the zone that are sourced mainly from external markets. Both bean and maize prices are following seasonal trends across the zone, albeit at elevated levels driven by limited supplies. Between April and May, maize prices rose by 7 – 30 percent across the zone due to limited supplies in the market and were above average by 12, 57, and 117 percent in Taita Taveta, Kwale, and Kilifi, respectively, due to depleted household stocks and limited market supplies caused by reduced cross-border trade from Tanzania. Over the same period, dry bean prices increased by six percent and were 38 percent above the five-year average in Kilifi due to depleted household stocks, lower cross-border imports, and high transaction costs. In Taita Taveta, maize prices remained stable and within averages due to its location on the border with Tanzania, facilitating increased supplies from cross-border trade.

According to the May WFP FSOM, 17, 42, and 41 percent of households had poor, borderline, and acceptable food consumption scores in the zone, respectively, remaining stable compared to December 2016 results. However, reliance on coping mechanisms remains widespread, as 98 percent of households have employed consumption and livelihood coping strategies to bridge both food and income gaps. Between April and May, NDMA sentinel site data determined that the proportion of children "at risk" of malnutrition, measured by Mid-Upper Arm Circumference (MUAC) < 135mm, fell by six percent in Taita Taveta to 3.1 percent. In Kilifi, it increased drastically by 56 percent to 59.5 percent, likely caused by a decrease in dietary diversity due to reduced food and milk consumption. In Kwale, it remained stable at 6.5 percent. The proportion of children "at risk" ranges 17 – 18 percent above the five-year averages across the zone, showing an overall decline in the nutrition status.

Out of the approximately 468,000 persons determined in need of assistance by the KFSSG short rains assessment in February, FEWS NET has estimated that approximately 360,000 beneficiaries have received some form of humanitarian assistance by different actors within the zone. These efforts consist of programmes, such as unconditional cash transfers, food distribution, supplementary feeding programmes, cash for assets, and cash transfers to vulnerable persons providing sufficient food and/or income according to the local food basket. However, a large portion of this assistance, especially for general food distributions, has not been properly targeted and coordinated making it difficult to determine whether the assistance has had a significant impact on household food security status. A large number of poor households facing limited income, even with humanitarian assistance, can only meet their minimum food requirements and remain in Stressed (IPC Phase 2). The long rains have brought about improvements, but they are expected to be short-lived. The areas previously in Crisis (IPC Phase 3), particularly the marginal farming areas of Kilifi (Ganze and Kaloleni) that have had consecutive seasons of poor crop production and in the livestock-holding areas of Magarini Sub-County that suffered massive livestock deaths of about 70 percent of their cattle, continue to face Crisis (IPC Phase 3) outcomes due to severely limited food and income levels.

Assumptions

In addition to the national assumptions described above, the following assumptions have been made about the Coastal Marginal Agricultural Mixed Farming livelihood zone:

- Likely cumulative below-average long rains are likely to result in a 20-30 percent below-average **long rains crop harvest** during the August to September period in this zone.
- **On-farm casual labor opportunities** are expected to remain at below-normal levels during the July to August harvesting of the long rains crop, following reduced on-farm activities due to the late onset of rains across the zone and less acreage planted in Taita Taveta because of the below-average long rains. With the resumption of the short rains in October, which are expected to be average in this zone, this will trigger an increase in farm-related activities. As a result, on-farm casual labor opportunities are expected to peak again, and be available at average levels through the end of January 2018, as households intensify planting to compensate for the previous, successive poor production seasons.
- Due to atypically low casual labor opportunities, **households' incomes** are also expected to remain below-normal levels through October. However, resumption of the short rains, triggering increased farm-related wage labor opportunities, will boost household incomes from November onwards, and are expected to be available at average levels, consequently keeping wage rates at typical levels.
- **Retail maize prices** in the representative consumer market of Kilifi are expected to continue increasing, albeit gradually, through June, driven by tightening domestic supplies and reduced imports, primarily from Tanzania, amidst heightened household demand. Prices are expected to oscillate between KES 55 – 65. From July, prices are expected to stabilize and/or decline marginally as local market supplies increase following the local harvest of long rains crops, Tanzania's May to August Msimu harvest in high-producing southern areas, and imports from Mexico and potentially Zambia.

Prices, however, are likely to remain above recent five-year averages throughout the scenario period by approximately 20 to 40 percent.

- **Retail bean prices**, having risen sharply earlier than expected, from February 2017, are also expected to continue rising through June, following the failure of the short rains' cowpeas and green grams, exerting further demand for beans. Prices are likely to remain steady from July, as substitutes like cowpeas and green grams become available with the harvest, reducing demand for beans. In Kilifi, prices are expected to range between KES 115 – 125 throughout the scenario period, and will be up to 20 – 30 percent above recent four-year average levels.
- **Importation of maize and beans** from Tanzania are set to increase at atypical levels from June through the end of the scenario period to meet the high local demand, following the below-normal long rains crop harvest.
- **Household food stocks** are expected to remain atypically low throughout the scenario period, as the expected below-average long rains harvest is inadequate to replenish depleted stocks. Due to atypical levels of household stocks, market dependence for food is likely to remain high throughout the scenario period.
- Due to the below-average rains in parts of Taita Taveta and the atypical regeneration of rangeland resources outside protected areas (national parks/reserves), herding communities, residing adjacent to national parks and reserves, are likely to gain forceful entry into these areas with their livestock in search of forage and water during the peak of the dry season, August to October. In addition, cases of livestock invading cropped private farms are also likely to increase over the same period. This will heighten **conflict-related incidents** between herders and farmers, and between herders and park authorities. However, the onset of the short rains will provide relief to the herders, as forage and water improves from November, with conflict incidents likely to reduce significantly.
- The national and county-level governments have provided **humanitarian assistance** across the zone since November 2016 to approximately 360,000 people through general food distributions, which is helping to improve food availability. However, these distributions have been irregular and the beneficiaries have been randomly targeted, and since the assistance is not planned, funded or likely to continue, FEWS NET has not taken this assistance into account in its analysis. Long rains cropping activities including land preparation, planting, and weeding will be available at typical levels from March through May.

Most Likely Food Security Outcomes

June to September: Food insecurity is set to increase from June through July as food availability and consumption decreases for poor households. Income at the household level will remain low as typical sources, such as livestock and staple crop sales, are expected to remain significantly below-average due to insufficient recovery of both from the effect of the previous poor seasons. In July, the below-average long rains harvest will provide some food and wage labor opportunities at atypically lower levels for a short period of time. Then household food stocks are expected to rapidly dwindle. With high market dependence due to depleted household food stocks, the Msimu harvest from Tanzania will only slightly moderate the high staple food prices, which will remain above five-year averages, resulting in continued constrained purchases and low household food availability. The proportion of children under five years of age at risk of malnutrition is expected to be at the highest level in August and September as food and water availability further declines, forcing households to employ both consumption and livelihood-based coping strategies. The expected below-average long rains crop harvest in August will provide some relief in terms of food availability and income as the harvesting activities provide agricultural wage labor opportunities, such as harvesting, though at below-average levels. From August, as household stocks dwindle, staple food prices are set to increase further and remain above five-year averages, diminishing food access and consumption and increasing reliance on coping strategies. Households will increasingly turn to charcoal sales, non-agricultural wage labor, remittances, and petty trade as alternative sources of income to facilitate market purchases as livestock sales are also expected to remain low. By engaging in these alternative income sources, poor households are expected to significantly increase their level of income, which will facilitate better market access. Increased conflict-related incidents between livestock herders and farmers will likely increase as forage and water become increasingly scarce. In addition, human-wildlife conflict is expected to intensify in areas adjacent to the national parks, resulting in the destruction of farms and property, disrupting livelihood activities. A majority of poor and very poor households in the zone are expected to be able to meet minimally adequate consumption needs but are unlikely to be able to afford non-food expenditures without engaging in irreversible coping strategies and remain in Stressed (IPC Phase 2). Though it is unclear how many beneficiaries and what type of humanitarian assistance will be provided in the zone during June to September, it is expected that humanitarian assistance will help to mitigate the most severe food security outcomes. In the marginal farming areas of Kilifi (Ganze and Kaloleni) and in the livestock-holding areas of Magarini Sub-County, these areas are expected to remain

in Crisis (IPC Phase 3) through September. Poor households are not expected to be able to recover during this period and will continue to face Crisis (IPC Phase 3) outcomes, with significant food gaps and/or marginally be able to meet their minimum food needs only by accelerated depletion of their productive assets as they increasingly resort to distressed livestock sales.

October to January: The onset of the October to December short rains, forecasted to be average in this zone, are expected to allow for a resumption of normal agricultural labor opportunities like planting, weeding, and harvesting. This is expected to provide needed income to supplement alternative income sources, improving household purchasing power and reducing reliance on coping mechanisms, especially from November onwards. The long rains harvest from the high rainfall areas of western Kenya and the Rift Valley is expected to become available in local markets from October, reducing staple food prices, improving household food access and consumption. Water and forage conditions are expected to improve from November and with them, livestock productivity in terms of calving, lambing, kidding, and milk production, improving consumption and the sale of livestock products. Increased milk production from November onwards is expected to help reduce malnutrition outcomes in children under five years of age through January 2018. By late November, household food security is expected to improve as poor households, previously classified as Stressed (IPC Phase 2), are projected to move to None (IPC Phase 1), and, those previously classified in Crisis (IPC Phase 3) in Kilifi are projected to move to None (IPC Phase 1). However, in portions of Kilifi, due to three years of poor production, it is likely that some poor household could still face Stressed (IPC Phase 2) outcomes as they rebuild their livelihoods. In December, short cycle crops are expected to be available, further improving household food consumption and dietary diversity.

Northwestern Pastoral livelihood zone

Current Situation

The onset of the March to May long rains was late by four dekads across most of the zone, except in the northern parts of Turkana North and West sub-counties where they were timely and in some parts, early by one dekad. The cumulative totals were mostly 50 – 75 percent of normal in the northern parts of Turkana, with some isolated areas that received 90 – 110 percent of normal, but were 25 – 50 percent of normal rainfall in Turkana East, Turkana South, southern parts of Loima Sub-County, and eastern parts of Kacheliba in West Pokot County. The rains were poorly distributed both spatially and temporally.

Current water sources are boreholes, shallow wells and springs, of which about 70 percent are operational, while the remaining 30 percent are non-operational mostly due to breakdowns and drying up. Due to the below-average rains, recharge levels were moderate (50 – 60 percent) for most of the sources, especially shallow wells, except for the water pans that recharged less. However, due to marginal improvements, between April and May, livestock return trekking distances to watering points from grazing fields fell by 24 – 42 percent, ranging from 4.3 – 10.2 km, which were within normal distances.

Pasture improved slightly between April and May attributed to some rainfall received in April in Turkana but is currently mostly poor, while fair in the riverine areas along River Turkwel and River Kerio and in West Pokot due to enhanced rain in May. The poor pasture is expected to last only until the end of June, and not until August as is typical. Browse conditions are below average across the zone. In Turkana, the poor browse is only expected to last for one month, up to July, instead of the typical two months. In West Pokot, browse conditions are slightly better and range from fair to good and are projected to last until August, compared to October, normally. In addition, there is restricted access to forage in some areas due to conflict and insecurity.

Due to the below-average regeneration, livestock body conditions remain atypically poor for all species in Turkana. Camels, however, maintained good body conditions, especially in the riverine areas. In West Pokot, the livestock body conditions of cattle and sheep is fair and improving, as forage improves, while that of camels and goats is fair to good but below normal as the forage conditions remain below average. Between April and May, goat prices generally remained stable and within average in both Turkana and West Pokot due to marginally improved body conditions driven by improving forage. Volumes of livestock traded, however, remain low as pastoralists have kept the majority of their animals in migration areas.

Within the zone, retail maize prices between April and May rose by 6 – 9 percent as supplies dwindled and remained 26 and 32 percent above the five-year average in West Pokot and Turkana, respectively, due to dwindling supplies from source markets in western Kenya and the North Rift and increased transaction costs, such as transport. However, steep price increases have been mitigated by ongoing humanitarian assistance to households in the form of relief food, primarily in Turkana, reducing dependence on the market for purchases. Consequently, the livestock-to-cereals terms of trade between April and May remained 19 – 28 percent below average in West Pokot and Turkana, indicating the income from the sale of a goat would enable the purchase of 47 kilograms of maize compared to 58 kilograms normally in West Pokot and 22 kilograms of maize compared to 31 kilograms normally in Turkana. Low livestock numbers near homesteads, drought-related deaths, and livestock offtake

have significantly reduced household income from livestock and milk sales and herding opportunities, significantly reducing purchasing power.

The below-average forage conditions have negatively affected livestock productivity across the zone, particularly milk production, which is about 0.7 liters in West Pokot compared to the normal 1.3 liters, and in Turkana it stands at 1 liter compared to the average of 7 liters per week as most pastoralists have maintained the majority of their livestock in the dry season grazing zones, and those around the homesteads are still recovering from the effects of the recent drought and are yet to regain full productivity. As a result, when they can afford it, households have resorted to purchasing powdered milk as a substitute to regular milk. Livestock migration remains abnormal with a higher percentage of livestock migrating compared to normal: cattle (95 percent compared to 50 percent), camels (15 percent compared to 5 percent), donkeys (15 percent compared to 2 percent), goats (85 percent compared to 45 percent), and sheep (98 percent compared to 65 percent). In May, out-migration was observed as livestock from various sub-counties (Turkana East, Turkana South, Loima, Turkana West, and Pokot Central) moved towards the West Pokot-Turkana border, intensifying conflict associated with cattle rustling between the Turkana and Pokot communities that resulted in the loss of one human life. Others from Loima, Turkana West, and Pokot North sub-counties moved to Uganda, and livestock from Turkana North and Kibish moved to Kaitede and Soya ranges in South Sudan, igniting conflicts over resources between the Turkana and Toposa communities. In April, in-migration was observed in West Pokot as pastoralists moved their livestock back into the County from the dry season grazing grounds, mainly in Uganda, due to availability of pasture in some areas. There were no outbreaks of livestock diseases; however, incidences of Mange, Contagious Bovine Pleural Pneumonia (CBPP), Contagious Caprine Pleural Pneumonia (CCPP), Trypanosomiasis, worm and tick-borne infections were reported. Herd sizes remain low in the zone. Poor and very poor households typically have herd sizes ranging between 15 – 40 animals, mainly sheep and goats. However, in a zone that experienced widespread livestock losses due to the drought, large-scale livestock offtake interventions, current levels are significantly less.

Low household purchasing power and high staple food prices are constraining food access, especially during the current period where market dependence is high, and atypically high for milk. Meal frequency is below normal, at one to two meals per day, compared to a normal two to three meals per day, which was confirmed by the May WFP FSOM that found 41, 36, and 24 percent of households with poor, borderline, and acceptable food consumption, respectively. The FSOM also showed that a majority of households (88 percent) continue to engage in consumption-based coping strategies to meet minimum food requirements, such as borrowing from friends and relatives, consuming less preferred and cheaper foods, purchasing food on credit, reducing the number and sizes of meals, and skipping meals. Twelve percent of households were not employing coping mechanisms in May, which could be as a result of the improvements from the May rainfall and the effects of humanitarian assistance.

According to the NDMA sentinel site data between April and May, the proportion of children “at risk” of malnutrition measured by Mid-Upper Arm Circumference (MUAC) < 135mm was 7.6 – 14 percent in West Pokot and was 21 – 31 percent below average, showing an overall better nutrition status than normal, which was attributed to improved accessibility to essential health and nutrition interventions in the zone through initiation of mass screening and integrated health outreach services. (Note, there was no comparable data available for Turkana for this period.)

The 2016 short rains food security assessment carried out by the Kenya Food Security Steering Group (KFSSG) in February determined that 15 percent of the population of West Pokot and 25 percent of Turkana, amounting to about 97,000 and 276,200 persons, respectively, needed humanitarian assistance to cover their minimum food needs. Currently, in Turkana, humanitarian assistance is benefitting a total of about 830,000 beneficiaries, which if there was no overlap of beneficiaries would account for approximately 97 percent of the total County population. (Assistance includes cash transfers - 132,700, supplementary feeding programs - 183,888, and Hunger Safety Net Programme (HSNP) emergency scale-up for approximately 582,000 beneficiaries, which is significantly higher than the number that was determined to be in need.) Taking into consideration the seasonal deterioration since February, increase of the population in need of humanitarian assistance, and various program overlaps since there are some beneficiaries that are in more than one program, it is still likely that the population in need of assistance is adequately catered for by humanitarian assistance and preventing worse food security outcomes, particularly in Turkana Central (Kerio Delta) and Loima (Loima, Lokiriama, and Turkwel), that are relatively easily accessible due to shorter distances and lack of conflict. As a result, these areas are currently classified as Stressed! (IPC Phase 2) in the presence of humanitarian assistance. In areas of Turkana North and parts of Turkana East and Turkana West, there is the likelihood that some households would be facing Emergency (IPC Phase 4) outcomes in the absence of ongoing humanitarian assistance. Most of the poor households remain in Stressed (IPC Phase 2), in parts of Turkana South, Turkana West, and Turkana Central. However, in the northern parts of West Pokot (Kacheliba), parts of Turkana North, Turkana East (Kapedo), Turkana West, Loima (Kotaruk), and other portions

of Turkana Central, poor households are experiencing Crisis (IPC Phase 3) outcomes. The level of ongoing humanitarian assistance in these areas, which is not planned, funded, and likely is insufficient to be incorporated into FEWS NET's analysis.

Assumptions

In addition to the national assumptions above, the following assumptions have been made about Northwestern Pastoral livelihood zone:

- With the below-average 2017 long rains, following a significantly below-average 2016 short rains, **lambing, kidding, and calving activities** for the periods of June and October to November are likely to be atypically below-normal.
- The prolonged drought has resulted in substantial livestock mortalities, especially between October 2016 and March 2017, among pastoral households. With below-average livestock births, and other livestock losses, either through slaughter and/or distressed sales, average **livestock herd sizes** for all species are expected to remain atypically lower throughout the scenario period.
- Following a below-average long rains, **livestock productivity** is expected to remain at below-normal levels through October due to poor livestock body conditions that are unlikely to sustain marginal improvements past the end of June. However, livestock productivity is expected to gradually improve beginning in November, with the short rains, through January 2018.
- With most households expected to maintain their livestock away from homesteads, in the dry season grazing areas, there will be very few herding opportunities through October. As a result, **livestock-related casual labor opportunities** are expected to continue at atypically low levels. With the forecast for the short rains, pointing towards slightly below-average cumulative amounts in this zone, it is expected that on-farm casual labor opportunities will remain below-normal levels from November through January 2018.
- The 2017 long rains improved **rangeland resources** but at below-normal levels and were not sufficient to result in adequate recovery of atypically deteriorated rangeland resources, especially forage. Partially regenerated forage and water resources will remain fairly favorable through July. However, due to the expectation of below-normal recovery, coupled with expected warmer-than-normal land surface temperatures, rangeland resources will be depleted faster than normal, especially during the August – September period. With the onset of the forecasted below-average short rains in October in this zone, this will likely lead to only partial rangeland recovery from November onwards.
- With pastoral communities expected to intensify the search for forage and water during the dry period, **competition for rangeland resources** is likely to intensify between August and October. However, with the onset of the short rains, as it leads to partial recovery of forage and water, competition is likely to fall from November through January 2018.
- During the peak of the dry season, August to October, there is likely to be a high concentration of livestock around forage and water points, which is a conducive environment for the outbreak of **livestock diseases**. As a result, these diseases are expected to increase during this period. With the resumption of the short rains, pastoralists are expected to move less than 50 percent of livestock back to wet season grazing areas near homesteads, decongesting the previously crowded grazing fields, from November onwards. This would likely result in a reduction in livestock diseases through the end of the scenario period.
- **Goat prices** in the representative market of Lodwar declined by almost 34 percent between December 2016 to April 2017 since there was atypical deterioration of rangeland conditions, which negatively affected livestock body conditions. With rangeland resources expected to deplete faster than normal, due to below-normal recovery, livestock body conditions will likely deteriorate from July through November with prices declining seasonally and remaining below average. From November, improved body conditions driven by the October to December short rains and demand to replenish stocks and the December festive season are likely to boost prices in the local markets. Throughout the scenario period, goat prices in Turkana are expected to range between KES 2,000 – 2,500, and are likely to remain up to 20 percent below the recent five-year average levels.
- **Retail maize prices** in the representative pastoral market of Lodwar in Turkana County rose atypically early in March instead of April because of the below-average harvest, including in irrigated systems that had low water levels. Through June, maize prices are expected to typically increase, driven by heightened demand by households against tightening supplies, from both local and source markets. Compared to other markets, Turkana has consistently posted relatively higher maize prices due to challenges with accessibility. However, this year's poor cropping season compounded the

problem but further increases are being mitigated by ongoing humanitarian assistance that is planned, funded and likely through September. From July onwards, FEWS NET technical projections show retail maize prices in Lodwar remaining steady at between KES 92 – 94 through December, and then slightly increasing. Throughout the scenario period, prices are expected to remain elevated, above last year's prices, and up to 20 – 30 percent above recent five-year average levels.

- Typical levels of acute malnutrition in the livelihood across seasons is "Critical" with **Global Acute Malnutrition** (GAM) prevalence of 15 – 29.9 percent. The most recent SMART survey conducted in January 2017 in four sub-counties in Turkana County recorded a GAM prevalence that are within these typical ranges. Between May and June, marginal improvements in food security are expected, but this is unlikely to be reflected by significant improvements in levels of acute malnutrition. Reduced dietary intake expected in July through October will likely result in a gradual increase in acute malnutrition levels, but the planned and ongoing nutrition interventions will likely mitigate against rapid deterioration. The onset of the forecasted slightly below-average short rains is likely to provide some improvements in household food consumption from November onwards, as milk and meat become available with households moving their livestock back near homesteads, also providing wage-earnings opportunities and herds for sale. Improvements in food availability will likely boost the nutritional status of the population, though overall GAM prevalence is expected to remain within typical "Critical" levels (15.0 – 29.9 percent).
- Between June and September, **humanitarian assistance** that is planned, funded, and likely through the end of September in Turkana Central (Kerio Delta) and Loima (Loima, Lokiriama, and Turkwel) is estimated to benefit 100 percent of the population in need of assistance in these areas. The assistance, mostly cash transfers issued monthly to households based on a food basket measure of protein, fat, and micronutrients that fulfills the required 2,100 kilocalories per person per day is expected to play a vital role in mitigating the worst food insecurity outcomes at the household level for these areas. From October, the effects of the forecasted average to below-average rains is still expected to gradually reduce the population in need of assistance from October to January.

Most Likely Food Security Outcomes

June to September: Food security is projected to decrease from July as forage and water conditions atypically deteriorate due to the below-average long rains that were insufficient to fully replenish them. Food availability at the household level is expected to decline as high staple food prices persist amidst reduced incomes from livestock and milk sales because of declining livestock productivity. Income from livestock-related wage labor, such as herding, is expected to significantly decline due to reduced livestock numbers near homesteads and overall herd sizes from additional sales, drought-related deaths, livestock offtake, and out-migration. Poor households are expected to increasingly rely on wild foods, though they are likely to be scarce due to the poor forage conditions. Malnutrition levels for children under five years of age are expected to increase further from July and peak in August as food availability continues to decrease. The reduced dietary intake will likely result in a gradual increase in malnutrition outcomes, between July and October, as planned and ongoing nutrition interventions mitigate against rapid deterioration. Reduced incomes are expected to significantly lower household food consumption and force households to increasingly rely on non-livestock related income sources, such as charcoal sales, remittances, humanitarian assistance, and safety nets to meet their minimum food needs, and a majority of households are projected to remain in Stressed (IPC Phase 2). However, in Turkana Central (Kerio Delta) and Loima (Loima, Lokiriama, Turkwel), humanitarian assistance is expected to prevent worse food security outcomes and poor households are expected to face Stressed! (IPC Phase 2) outcomes. For some households, however, in West Pokot (Kacheliba), parts of Turkana North (Kaaleng, Kaeris, Kibish, Lakezone, Lapur, Nakalale), Turkana East (Kapedo), Turkana West (Kakuma, Kaloyebei), Loima (Kotaruk), and Turkana Central (Kalokol, Kanamkemer, Kang'Atotha), it is likely that the intensification of coping strategies may not be enough to bridge the widening consumption gaps, and poor households are likely to not be able to meet their minimum food consumption needs. It is also unclear what level of humanitarian assistance will be provided in these areas during this period. Additional households are expected to move into Crisis (IPC Phase 3) acute food insecurity, beginning in August, at the height of the dry season, and it is likely some of the worst-affected households may face Emergency (IPC Phase 4) outcomes.

October to January: From October, the projected average to below-average October to December short rains are expected to begin, likely resulting in below-average regeneration of rangeland resources. As a result, pastoralists will likely move some their livestock back to their wet season grazing areas and closer to homesteads later than usual around December or depending on the rainfall received in the dry season grazing areas, perhaps not at all. From late November through December, due to better forage, livestock body conditions and milk production/sales are set to improve, providing additional food and income though at below-average levels in households. Calving and kidding rates will be atypically low and delayed due to

below average rains likely occurring from November through December, minimally improving herd sizes and livestock-related income earning opportunities, such as herding. Food availability and consumption is set to remain below average but is expected to be higher than June 2017 levels. Livestock sales will also likely remain below average due to low livestock productivity and births as households retain their livestock with an aim to replenish their stock lost during the lean season. Livestock prices are likely to remain below average and drop further in January as livestock flood the markets as households sell their livestock to obtain money for school fees. Dependence on humanitarian assistance, remittances, and safety nets will drop slightly but will most likely remain above average. Some improvements in food and milk availability will marginally boost the nutritional status of children under five and pregnant and lactating women, though the GAM prevalence is expected to remain stable at "Critical" levels (15.0 – 29.9 percent). From December, improved incomes and food availability as a result of the effects of the rains, though likely below average, are expected to lead to improvements in food security, with some poor households improving from Crisis (IPC Phase 3) to Stressed (IPC Phase 2) as they are able to meet essential food and non-food needs without engaging in atypical, unsustainable strategies. These improvements will not be reflected in the FEWS NET mapping data as the highest and predominant area phase classification will be reflected in the mapping. However, it is expected that there will still be poor households, who will remain in Crisis (IPC Phase 3), as it will take time for households to recover from their depleted livelihood assets.

Humanitarian assistance in Turkana and portions of West Pokot in Northwestern pastoral livelihood zone is not planned, funded, and likely for all areas in need, but there are indications that emergency assistance will continue to be scaled up by the national and county governments as well as by partners for the dry season period through October 2017. The HSNP emergency scale-up has 97,000 additional households in Turkana County under the emergency programme providing USD 26 every month per household to assist them meet their essential food and non-food needs, and this is likely to continue and even increase in terms of the numbers of beneficiaries through the end of 2017. As the assistance plans become clearer, FEWS NET will incorporate the assistance accordingly into its analysis and provide updates on the developing situation.

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
Western portions of the country	The unimodal rains (February – August) are above-average in cumulative amounts	If the total cumulative rainfall for the long rains in this region were above-average, this could lead to average long rains crop production, depending on the effects of FAW, in the main grain growing areas of Kenya in October. This would increase the staple food supply in the markets, in addition to the cross-border imports from Uganda and Tanzania, and cause staple food prices to decline and be closer to the five-year averages through January 2018.
Nationally	August General Election-related violence	If the August General Election results in election-related violence that disrupts economic activities, including livelihood-based ones, transport, trade and market access, this would lead to income losses and food shortages, especially in deficit-producing areas. This would drive higher levels of acute food insecurity.
Pastoral and marginal agricultural areas	Significantly below-average October to December short rains long rains (less than 50 percent of normal)	In pastoral areas, significantly below-average short rains would result in further deterioration of rangeland resources and livestock productivity activities, reducing income and food sources. Reduced household income would lower purchasing power and food and milk consumption. Food insecurity would likely increase from December as the short-lived effects of the short rains quickly dissipate. This would result in more households moving into Crisis (IPC Phase 3) and potentially even more in Emergency (IPC Phase 4). In the marginal agricultural areas, significantly below-average short rains would result in reduced crop production and agricultural wage labor opportunities. Reduced income opportunities would result in low household purchasing power and low food and milk availability and consumption at the household level. Food insecurity and malnutrition would increase through January 2018 with more households in Stressed (IPC Phase 2) moving to Crisis (IPC Phase 3).
Pastoral and marginal agricultural areas	Significant scale-up of funded humanitarian assistance	The United Nations Office for the Coordination of Humanitarian Affairs (UNOCHA) estimates that only 19 percent of Kenya's current humanitarian needs are funded. If all of the funding targets are achieved and the humanitarian assistance is scaled up accordingly, across the pastoral and marginal agricultural areas, this would lead to significant improvements in food security outcomes.

ABOUT SCENARIO DEVELOPMENT

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