

SOMALIA Food Security Outlook

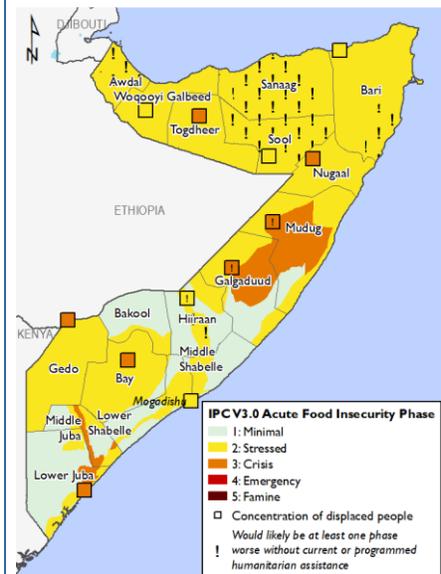
February to September 2020

Desert locusts and floods pose a risk of Crisis (IPC Phase 3) in many areas by mid-2020

KEY MESSAGES

- The above-average 2019 *Deyr* harvest, gains in livestock herd sizes, and sustained humanitarian food assistance have supported recovery from the preceding 2018/2019 drought and recent floods in rural areas. In February, Stressed (IPC Phase 2) outcomes are prevalent in the presence of food assistance. However, Crisis (IPC Phase 3) outcomes are observed in flood-affected Juba riverine areas, Addun Pastoral livelihood zone in central Somalia, and several internally displaced person (IDP) settlements. Based on food security data collected by FSNAU, FEWS NET, and partners in the post-*Deyr* 2019 food security assessment, an estimated 1.15 million people are in Crisis (IPC Phase 3) or Emergency (IPC Phase 4).
- Despite localized and limited negative impacts on food security to date, new desert locust swarms pose a significant risk of food insecurity in northern Somalia and in south-central areas on the border with Ethiopia and northeastern Kenya. In addition, there is a high likelihood of river floods due to a forecast of above-average rainfall in the south during the April to June *Gu* season. Crop losses from desert locust and river floods are expected to result in a *Gu* cereal production deficit of 15-25 percent. Although favorable *Gu* rainfall will likely mitigate pasture loss from April to June, below-normal pasture availability is expected in locust-affected areas throughout the July to September *Xagaa* dry season, which is expected to lead to atypical livestock migration and a decline in livestock productivity.
- Given the existing high risk of food insecurity in the aftermath of recurrent climatic shocks since 2016, poor households in locust-affected areas have a reduced ability to cope with the loss of agricultural labor income, loss of own-produced crops, and costs of atypical livestock migration. From February to September, the population in Crisis (IPC Phase 3) or Emergency (IPC Phase 4), who are in need of urgent humanitarian food assistance, is expected to rise by 40 percent to 1.61 million people. Meanwhile, more than 2.9 million people are expected to be Stressed (IPC Phase 2).

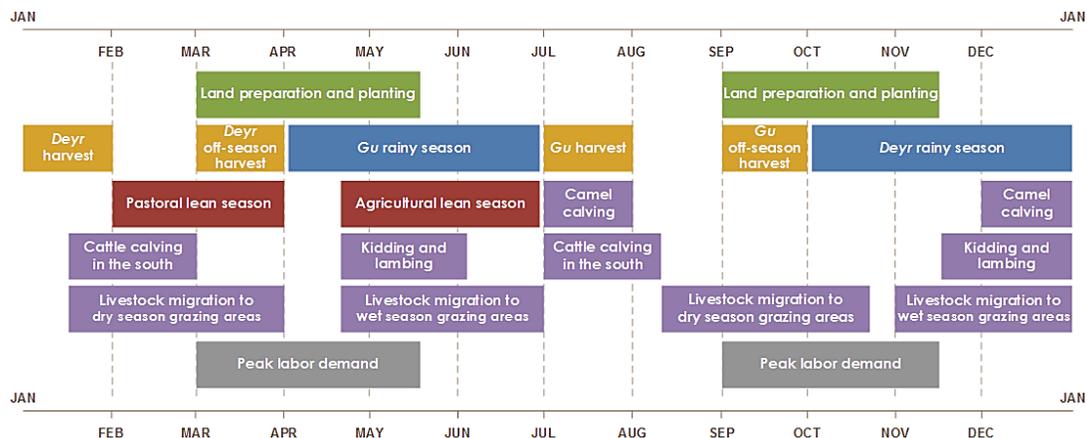
Current food security outcomes, February 2020



Source: FEWS NET and FSNAU

This map represents acute food insecurity outcomes relevant for emergency decision-making. It does not necessarily reflect chronic food insecurity. To learn more about this scale, click [here](#).

SEASONAL CALENDAR FOR A TYPICAL YEAR



Source: FEWS NET

DESERT LOCUST UPSURGE

In late February, FAO, FSNAU, and FEWS NET key informant information indicated that the presence of mature desert locust in Somalia is broadly limited to pastoral areas on the border with Ethiopia and Kenya (Figure 1). The desert locust upsurge first spread to northern Somalia in mid- to late 2019, facilitated by above-average October to December *Deyr* rainfall and cyclone Pawan. As swarms moved downwind to central and southern Somalia, abundant rainfall permitted the regeneration of pasture and offset losses in pastoral areas. By the time swarms reached southern agropastoral areas, most crops had already reached maturation stages or had been harvested. Based on FSNAU crop production estimates, desert locust caused approximately two percent of main season *Deyr* crop losses. As of mid-February, off-season *Deyr* crops had not been affected by desert locust and vegetation conditions remained above normal across most of the country.

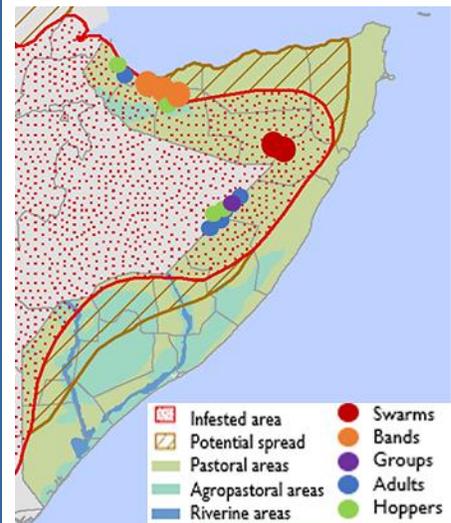
However, [FAO forecasts up to a 400-fold increase](#) in desert locusts through June, potentially affecting 180,000 hectares of pasture and farmland. Desert locust hopper bands and immature adult groups are now developing between coastal Woqooyi Galbeed (Berbera) and Burao (Toghdeer region). In the northeast, new immature swarms are forming near Garowe. The seasonal reversal of winds associated with the start of the April to June *Gu* season will encourage swarms currently in Kenya to move back into Ethiopia and Somalia, while a forecast of above-average *Gu* rainfall is expected to facilitate additional breeding. A mitigating factor to the potential spread of locusts is Somalia's strong coastal winds, which are anticipated to discourage significant locust movement into coastal and adjacent inland areas. Areas considered most vulnerable to the spread of locusts include northwestern Somalia and pastoral, agropastoral, and riverine areas bordering Ethiopia and Kenya (Figure 1). In many of these areas, insecurity renders effective aerial control measures challenging or infeasible.

In the most likely scenario, desert locusts are expected to spread into agropastoral and riverine areas at high risk of infestation during the vegetative growth stage of the main *Gu* season in April and May. Losses will likely be locally significant but limited on the national scale, as most of Somalia's high production areas – including southern parts of Bay, Lower Shabelle, and Middle Shabelle regions, which account for up to 70 percent of *Gu* cereal production – lie outside the potential spread area. However, due to above-average *Gu* rainfall, crop losses from desert locust will likely coincide with flood-induced crop losses in riverine areas. Based on these factors, the national main and off-season *Gu* harvest from July to September is most likely to be 15-25 percent below average. Further, due to a highly localized forecast of below-average *Gu* rainfall in Northwestern Agropastoral livelihood zone, below-average *Gu/Karan* production is most likely. In pastoral areas, *Gu* rainfall is expected to mitigate pasture losses caused by locusts in high risk areas through June, but faster-than-normal pasture deterioration is likely in the July to September *Xagaa* dry season. Consequently, livestock migration is likely to begin early and will intensify through September.

As a result of the negative impacts to crop and livestock production in locust-infested areas, poor farming households are expected to face a decline in agricultural labor income and own-produced crops while poor pastoral households will likely have increased expenditures on migration to distant grazing areas and reduced access to milk. When pasture availability is low and migration intensifies, past trends show that poor pastoral households often make difficult decisions between purchasing fodder and water for livestock and purchasing food for human consumption. However, national food availability and staple food prices are not likely to strongly deviate from normal, given above-average 2019 *Deyr* harvests, the likelihood of limited crop losses in the 2020 *Gu*, and availability of regional and international food imports. Poor riverine households in Gedo and Hiiraan, poor pastoral households in northern and central regions, and poor agropastoral households in parts of Bay, Bakool, and northwestern Somalia are most at risk of food insecurity, given low coping capacity following recurring drought and flood shocks since 2016. As a result, the population in Crisis (IPC Phase 3) or Emergency (IPC Phase 4) is expected to increase from 1.15 million to 1.6 million from February to September. The population that is Stressed (IPC Phase 2) is expected to exceed 2.9 million.

A worst-case scenario would be realized in the event that the *Gu* rainfall forecast fails, permitting more widespread locust movements on sunny days and leading to significant crop losses on the national level and earlier-than-normal depletion of pasture in many pastoral areas. A larger national cereal deficit and associated rise in staple food prices, coupled with the loss of household income and high atypical livestock migration, would likely lead to an additional, 15-25 percent increase in the population in Crisis (IPC Phase 3) or Emergency (IPC Phase 4). The Stressed (IPC Phase 2) population would likely increase by an additional 5 percent.

Figure 1. Desert locust infested area in February 2020; potential spread in March-June 2020



Source: FAO Desert Locust Watch, FEWS NET, FSNAU

NATIONAL OVERVIEW

Current Situation

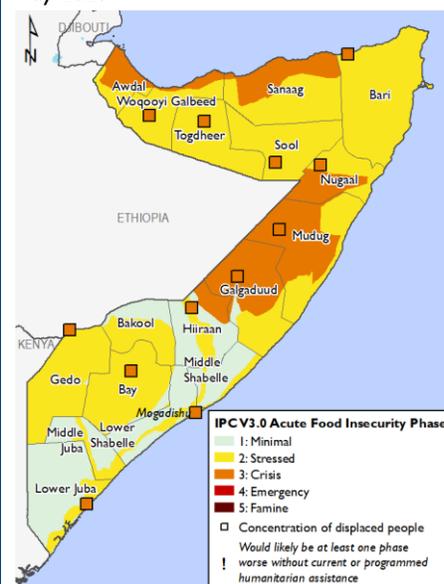
The October to December 2019 *Deyr* rainfall season facilitated the most productive *Deyr* season since the 2016/2017 drought, but also brought severe flooding to riverine areas in the south. Rainfall totals exceeded the 1981-2010 average by 200-300 mm in the south, resulting in floods that affected 570,000 people and displaced up to 363,000 people according to UNHCR. River water levels have largely receded in February, but more than 52 open river breakages are still present along the Juba river and more than 100 along the Shabelle River, according to FAO SWALIM. Although rainfall anomalies were less extreme in central and northern Somalia, the landfall of cyclone Pawan in Bari and Nugaal regions in November also caused flash floods and localized damage although it also replenished water and pasture in the two regions.

The above-average *Deyr* rainfall season led to above-average main season cereal production in southern Somalia, harvested in January and February.¹ However, floods caused significant crop losses and damaged irrigation infrastructure in riverine areas, which primarily produce maize, sesame, and horticultural crops. Based on FSNAU crop production data, 20 percent of the total 252,720 hectares planted with sorghum and maize were damaged, including two percent attributed to locust damage. Despite this, farmers in most agropastoral areas realized above-average sorghum yields. Total 2019 *Deyr* sorghum and maize production in southern Somalia is approximately 102,500 metric tons (MT), equivalent to 111 percent of the 2010-2018 and 126 percent of the 2014-2018 five-year average (Figure 2). The regions of Bay and Lower Shabelle accounted for nearly 75 percent of the total sorghum and maize harvest, producing 23 percent and 12 percent above their respective regional post-war averages (Figure 3). In contrast, the regions of Middle Shabelle, Hiiraan, and Gedo experienced the largest production losses, with harvests amounting to 59, 24, and 18 percent below their respective post-war averages. Aggregate production of cash crops, including sesame, cowpea, rice, onion, tomato, and watermelon, is estimated to be 28 percent below the 2018 *Deyr*.²

In addition to causing crop losses in riverine areas during the main *Deyr* production season, the floods have affected off-season cultivation. Flood waters receded more slowly than usual, compelling farmers to delay off-season cultivation through January in Hiiraan, Middle Shabelle, Middle and Lower Juba, and parts of Gedo. Based on data collected in the FSNAU and FEWS NET 2019 post-*Deyr* assessment, cultivation was suspended on an estimated 98,000 hectares. Farmers in Middle Juba and Middle Shabelle were worst affected.

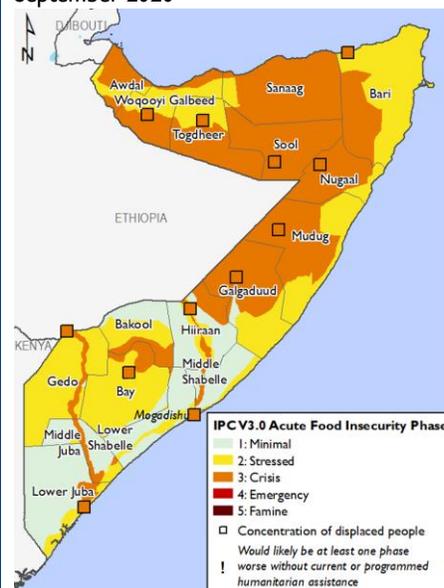
Meanwhile, in Cowpea Belt Agropastoral livelihood zone of central Somalia, various pest infestations – including pod borer, cowpea beetle, and fungi but excluding desert locust – led to an 18 percent reduction in cowpea production in comparison to the *Deyr* five-year average. Despite these losses, focus group information collected during the FSNAU and FEWS NET post-*Deyr* assessment in December indicated most poor households anticipated harvesting two to six months of food stocks. In Northwestern Agropastoral livelihood zone, favorable rainfall from August to October was conducive for the partial recovery of *Gu/Karan* cereal production. Revised FSNAU crop production data indicate that the *Gu/Karan* cereal harvest (mainly white sorghum) was about 33,800 MT, which is 19 percent below the 2010-2018 average but 142 percent of five-year average.³

Projected food security outcomes, February to May 2020



Source: FEWS NET and FSNAU

Projected food security outcomes, June to September 2020



Source: FEWS NET and FSNAU

¹ *Deyr* and *Gu* cereal production estimates are calculated based on sorghum and maize production in Bakool, Bay, Gedo, Hiiraan, Middle Juba, Lower Juba, Middle Shabelle, and Lower Shabelle regions.

² Historical production data on cash crops is only available for 2004-2019.

³ Historical production data using the same methodology to estimate *Gu/Karan* production is only available since 2010.

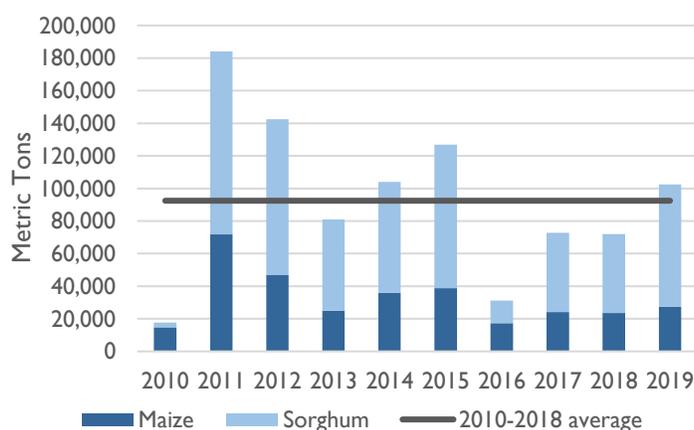
In most agropastoral areas, above-average *Deyr* crop production drove enhanced agricultural labor demand during the planting period in September and during the harvesting period in January. In Wanlaweyn district of Lower Shabelle, for example, FSNAU and FEWS NET monthly market data recorded an 80 and 34 percent increase in the daily labor wage rate in January 2020 compared to January 2019 and the five-year average, respectively. However, labor demand in riverine areas was significantly below normal from October to January due to the impact of floods on main and off-season production. Poor households in riverine areas were negatively affected by either fewer days of available work or a decline in daily wage rates. In January, the agricultural daily wage rate had still yet to recover in thin rural markets such as Rahole in Bu'aale district of Middle Juba, where the wage was only SOS 21,000 and 55 percent below both the January 2019 and January five-year average.

In pastoral areas, the above-average *Deyr* rains led to dramatic improvements in pasture and water availability in spite of the ongoing desert locust outbreak. Desert locusts have thus far only caused localized damage to rangelands in central and northern Somalia. According to the Normalized Difference Vegetation Index, vegetation conditions at the end of December exceeded 140 percent of normal across most of the country. In February, at the mid-point of the January to March *Jilaal* dry season, vegetation conditions were seasonally declining but were still above normal in many areas. In addition, rural demand for water trucking has atypically declined and water prices have plummeted in rural markets. In most rural markets in the northeast where the 2018/19 drought was most severe, the average price of a 20-liter jerrycan of water was approximately 2,887 SOS in January, or 40 percent below the five-year average. In rural markets in central and northwestern Somalia, prices were 15-55 percent below the five-year average. In contrast, water prices range widely from below average to above average in urban markets.

As a result, most pastoral livelihood zones are experiencing relative improvements in livestock health and value, milk productivity, and livestock reproduction. Livestock body conditions have improved significantly and livestock migration between and across livelihood zones are normal for the dry season, as are the costs associated with migration. In livelihood zones where medium conception levels occurred during the 2019 *Gu*, medium kidding and lambing took place during the *Deyr* and has provided households with some access to milk. However, low kidding and lambing occurred in livelihood zones where drought conditions during the 2019 *Gu* resulted in low conception levels, including Guban Pastoral livelihood zone and central parts of Addun Pastoral, Hawd Pastoral, and Coastal *Deeh* Pastoral and Fishing livelihood zones. Low to medium camel and cattle calving also occurred during the *Deyr*, similarly driven by conception levels during the preceding drought seasons. Overall, goat milk consumption is higher than the 2019 *Gu* and 2018 *Deyr* seasons and milk productivity is observed to be better in the north and the south than in central regions. Own-produced camel milk is currently not available to most poor households in Hawd and Addun Pastoral of Central, Coastal *Deeh* Pastoral of Central, and Guban Pastoral livelihood zones.

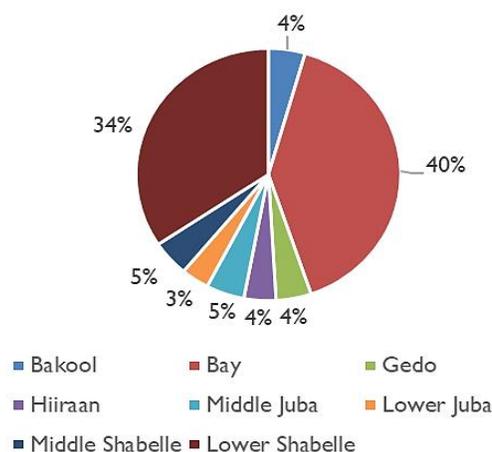
Despite these positive trends, the average poor households' herd size remains below baseline levels in most central and northern pastoral livelihood zones according to information collected from focus group discussions during the FSNAU and FEWS NET 2019 post-*Deyr* assessment. With the exception of East Golis Pastoral livelihood zone of Northeast (Bari region), where sheep/goat holdings are now near baseline, and West Golis Pastoral livelihood zone, where camel holdings are above baseline, the average poor households' livestock assets in most central and northern pastoral livelihood zones range from 50-80 percent of baseline. During the 2019 *Deyr*, livestock conception levels increased relative to the 2018 *Deyr* and are medium for camel and cattle and medium to high for sheep/goats across the country. Full livestock herd recovery will take several consecutive

Figure 2. Main season cereal production in southern Somalia in metric tons during *Deyr* seasons, 2010-2019 compared to the 2010-2018 average



Source: FSNAU data

Figure 3. Regional share of main season sorghum and maize crop production in the 2019 *Deyr*



Source: FSNAU data

seasons of average to above-average rainfall, after substantial losses of livestock during the 2016/17 drought and limited births and high off-take in the 2018/19 drought. Conversely, livestock holdings in most pastoral areas in the south have been sustained or grown to near to above-baseline levels.

Following an extended period of high staple cereal prices in late 2019, sorghum and maize prices declined by up to 20 percent from December to January in anticipation of the incoming *Deyr* harvest and due to rising cross-border imports of sorghum, maize, and wheat from Kenya and Ethiopia. In Baidoa reference market in Bay region, for example, the price of a kilogram (kg) of red sorghum declined by eight percent from December to January and was seven percent below the January five-year average. Some exceptions were observed in the month-on-month trend. For example, in Qoryoley reference market in Lower Shabelle, the price of a kg of white maize rose by 13 percent from December to January due to high demand from neighboring Middle and Lower Juba regions and Middle Shabelle region, where the riverine maize harvest was low, though the price was eight percent below the five-year average. In reference markets in central and northern Somalia, such as Hargeysa and Galkacyo, the price of a kg of red sorghum or white maize is generally near to slightly above the five-year average.

The price of staple food commodities that are imported from international markets, including rice, wheat flour, sugar, and vegetable oil, were near the five-year average in central and northwestern markets in January 2020. The Somaliland Shilling, which is used in the northwest, moderately appreciated against the United States Dollar over the past year due to monetary policy interventions by the Somaliland authorities. However, in the northeast, depreciation of the Somali Shilling (SOS) – driven by the printing of new SOS notes by the federal state authorities since late 2017 – has elevated imported food prices to 10-20 percent above the five-year average. In the south, moderate price increases of 5-10 percent were observed over the past six months, likely since *Deyr* rainfall rendered most of the roads impassable and hampered supply flows from the seaports.

In agropastoral areas of southern Somalia, heightened agricultural labor and crop marketing demand and declining cereal prices drove a modest increase in the labor-to-cereals terms of trade (TOT) from October to January in most regions. In Baidoa of Bay, for instance, a day of casual labor in January could buy 17 kg of red sorghum, which is slightly above the five-year average (16 kg). In Afgoye of Lower Shabelle, the daily labor wage could buy 9 kg of white maize, compared to the five-year average of 7 kg. However, flood-affected areas of Gedo, Middle Juba and Lower Juba have seen a decline in the TOT given localized, below-average demand for labor. In Buale of Middle Juba, for instance, a day of casual labor in January could buy 8 kg of white maize, which is merely half of the TOT in January 2019 (16 kg) and slightly below the five-year average (10 kg).

Across the country, the goat-to-cereals terms of trade is generally above the five-year average due to favorable livestock prices and declining cereal prices. In rural areas and in major markets, including Mogadishu, livestock prices range from near the five-year average in the south to above the five-year average in central and northern Somalia, driven by improved animal body weight, low supply as pastoralists rebuild their herds, and a seasonal decline in marketing since livestock are currently in wet-season grazing lands for fattening. In Mogadishu market, the price of one local goat in January 2020 was SOS 2,125,000, or approximately 35 percent above both the January 2019 and five-year average. In Galkayo of Mudug region in January 2020, a local quality goat could be exchanged for 91 kg of red rice, an increase of 21 and 34 percent compared to January 2019 and the five-year average, respectively. Similarly, in Burao of Togdheer region, a local quality goat could be sold to pay for 100 kg of red rice, an increase of 10 and 50 percent compared to January 2019 and January five-year average, respectively.

Conflict continues to cause fatalities, drive displacement, and restrict trade flows, market functioning, and humanitarian access, particularly in southern regions. According to ACLED data, a heightened number of attacks were undertaken by the insurgency and by government and external forces in late 2019, likely driven by the anticipated withdrawal of AMISOM forces in 2021. UNHCR PRMN registered 190,000 people in 2019 who cited conflict and insecurity as the main driver of displacement. Meanwhile, checkpoints and improvised explosive devices pose significant threats to trade and road access, while the construction of the road between Mogadishu and Jowhar, a major trade route, has been halted due to insecurity since 2010. Deliberate destruction of irrigation infrastructure (two main barrages) near Qoryoley town of Lower Shabelle in February 2020 could have negative impacts on irrigated crop production in the area. In addition, insurgents and local authorities impose double taxation on transported goods and wholesalers. According to the Somalia 2020 Humanitarian Response Plan, more than one-third of Somalia is difficult for humanitarians to access either due to insecurity or due to insurgent-enforced restrictions on food assistance. Inter-clan conflict related to resource control and retribution is ongoing in Jariban/Hobyo districts of Mudug, in Dhusamareeb against Abudwak of Galgaduud, and in Hiiraan, which has also resulted fatalities, asset loss, and displacement.

Although conflict contributed to a quarter of all new displacement in 2019, the primary driver of displacement was the *Deyr* floods. Out of the 770,000 people who were newly displaced in 2019, UNHCR PRMN data indicates that the floods led to 54 percent of new displacement in 2019 and 71 percent of new displacement from July to December 2019. Issues related to the preceding drought, such as loss of livelihood, also continued to drive displacement throughout 2019 – contributing about 13 percent of overall displacement from July to December 2019. The top regions where new displacement occurred in 2019

included Hiiraan (35 percent), Lower Shabelle (15 percent), and Middle Shabelle (11 percent), with the majority remaining within the same region or traveling to settlements in Mogadishu.

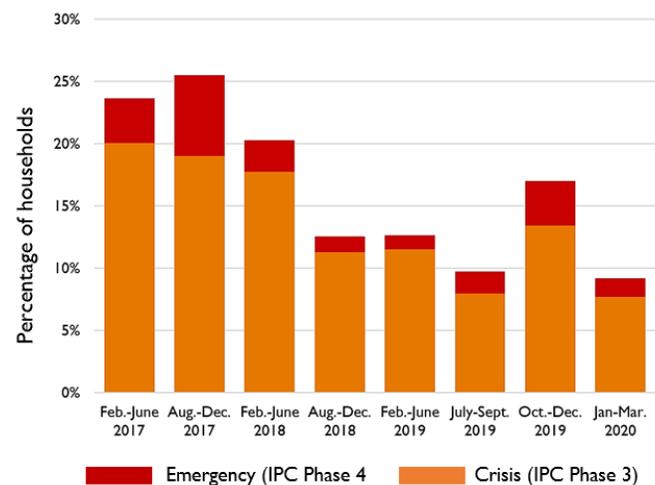
According to district-level food assistance distribution data from the Somalia Food Security Cluster, an average of 1.6 million beneficiaries were reached monthly from November 2019 to January 2020 with either cash/voucher assistance or in-kind assistance equivalent to at least a quarter of the minimum monthly kilocalorie requirement. During this period, food assistance reached more than 25 percent of the local population in parts of Guban Pastoral and Northern Inland Pastoral livelihood zones, Riverine Pump livelihood zone of Hiiraan, and several IDP settlements. A review of food assistance delivery over the course of 2019 shows that food assistance delivery reached its peak from August to December 2019, reaching an average of 1.86 million people per month at the height of the drought and flood response. By January 2020, food assistance declined but remained significant, reaching 1.2 million people at the start of the *Deyr* harvesting period. Data from the post-*Deyr* assessment and observations from field analysts corroborated the presence of consistent, large-scale assistance in many areas of the country. In addition, households affected by the floods in Beledweyne of Hiiraan region reported receiving food assistance from Arab humanitarian agencies and the Somali diaspora; however, data is not available on delivery or amounts.

Current food security outcomes

Food security outcome indicator data from the FSNAU post-*Deyr* rural household survey and IDP/urban household survey indicated relative stability in the number of people experiencing Crisis (IPC Phase 3) or worse outcomes in January 2020 compared to August 2019 in the presence of humanitarian food assistance (Figure 4). In the January-March 2020 period, an estimated 1.15 million people are estimated to face Crisis (IPC Phase 3) or worse outcomes. In addition to the population in Crisis (IPC Phase 3) or Emergency (IPC Phase 4), 2.86 million people are Stressed (IPC Phase 2). At the time of the August 2019 IPC, FSNAU and FEWS NET had anticipated that the population in need of food assistance would significantly increase in the October-December 2019 period in the absence of assistance, driven by the loss of income and assets during the 2018/19 drought and a decline in labor demand among flood-affected agropastoral and riverine households during the 2019 *Deyr*. On the one hand, the observed stability in the population in need of assistance in January compared to August reflects recovery from the period of peak humanitarian needs between October and December 2019, when river and flash floods disrupted livelihoods activities, *Gu* food stocks were already exhausted, and staple food prices spiked. On the other hand, the scale-up of food assistance from August to December played a significant role in mitigating food consumption gaps and preventing worse food security outcomes in areas with humanitarian access.

Rural livelihood zones: In January, food security outcome indicator and contributing factor data collected during the post-*Deyr* assessment was indicative of Stressed (IPC Phase 2) or Stressed! (IPC Phase 2!) outcomes in most pastoral and agropastoral areas in the presence of food assistance (Figure 5). By February, the arrival of the above-average, main season *Deyr* harvests and associated improvements in household purchasing power has supported some additional improvement to Stressed (IPC Phase 2), despite the relative decline in food assistance distribution (map of current food security outcomes on page 1). In northern and central pastoral areas, a relative increase in herd sizes from the *Deyr* birth cohort and access to milk for consumption and sales, coupled with access to food assistance, has largely prevented food consumption gaps. However, the typical poor household has higher-than-normal debt levels that range from 17-27 percent above the level of debt reported in December 2018, due to high reliance on credit to purchase food and non-food items during the preceding drought period (i.e., debt accumulation). In areas such as Northern Inland Pastoral, food assistance has played in a critical role in mitigating unsustainable livestock sales for food purchases and supporting herd recovery among poor households. However, Crisis (IPC Phase 3) outcomes are observed in Addun Pastoral of Central livelihood zone, where herd sizes have stagnated at unsustainable levels. Although Stressed! (IPC Phase 2!) are currently observed in Guban, key informant information indicates that there are still at least 10 percent of households that have few to zero livestock and have remained destitute since losing their herds in the drought and Cyclone Sagar. These households remain most at risk of Crisis (IPC Phase 3) or Emergency (IPC Phase 4). In northern

Figure 4. Percentage of the Somali population estimated to be in Crisis (IPC Phase 3) or Emergency (IPC Phase 4) based on post-*Deyr* and post-*Gu* household survey results, early 2017 to early 2020



Source: Results of 2017-2019 Somalia IPCs, FSNAU and FEWS NET

agropastoral areas, income and crop sales from the *Gu/Karan* harvest is sustaining Stressed (IPC Phase 2) outcomes, while income and sales from the cowpea harvest and income from livestock and milk has driven improvement to Minimal (IPC Phase 1) in Cowpea Agropastoral livelihood zone.

Most southern agropastoral and pastoral livelihood zones are currently Stressed (IPC Phase 2) or Minimal (IPC Phase 1), though Crisis (IPC Phase 3) exists at the household level. Outcomes have significantly improved in Bay Bakool Low Potential Agropastoral and Southern Rainfed Agropastoral livelihood zones. Although conflict and insecurity persist, most poor households are able to meet their food needs due to above-average *Deyr* cereal harvests for household consumption and sales, high labor demand during the harvest, and growth in herd assets and milk production for consumption and sale. Damage from flash floods on crops and damage from desert locust on late-planted crops and rangeland was largely localized. However, household food access remains below optimal levels, particularly for poor, labor-dependent households. Many have accrued higher-than-normal levels of debt that is now being repaid, resulting from heavy reliance on credit to purchase food, agricultural inputs, and essential non-food items after the loss of income during the 2018/19 drought.

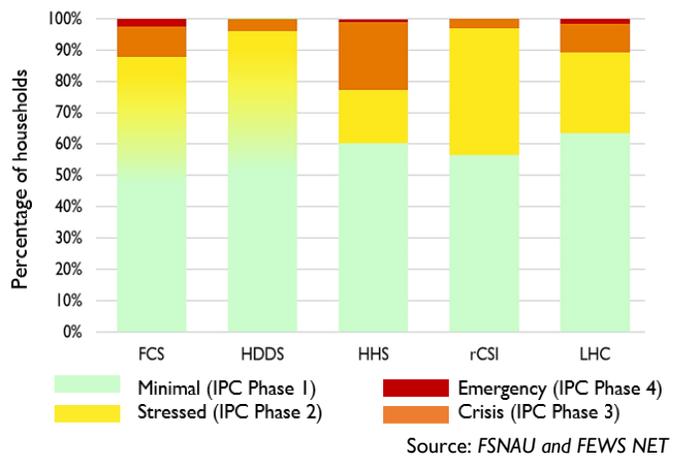
In riverine areas of the South, outcomes vary depending on the timing and scale of floods and associated negative impacts on crop production as well as the mitigating effects of humanitarian food assistance. In riverine areas in Middle and Lower Juba, Crisis (IPC Phase 3) outcomes are expected due to the loss of agricultural labor income and own-produced crops during the main *Deyr* season that have resulted in food consumption gaps. In riverine areas of Hiiraan, where poor households also lost labor income and own-produced crops, significant humanitarian food assistance is supporting Stressed! (IPC Phase 2!) outcomes and likely preventing deterioration to Crisis (IPC Phase 3). In riverine areas of Lower and Middle Shabelle, Stressed (IPC Phase 2) outcomes are present. In Lower Shabelle, flooding was less severe and the main harvest is above average on the regional level. In Middle Shabelle, despite significant flooding that resulted in a below-average main harvest, poor households have been able to earn labor income in neighboring, high potential agropastoral areas. In all areas, many poor households are heavily relying on access to credit to purchase food, with many reporting high debt accumulation compared to July 2019 and December 2018.

Internally displaced person (IDP) settlements: Food security outcome indicator and contributing factor data collected during the post-*Deyr* IDP household survey in November 2019 indicate that 18 percent of the total IDP population of 2.6 million is in Crisis (IPC Phase 3) or Emergency (IPC Phase 4). Most IDP settlements (7 out of 12) are classified in Crisis (IPC Phase 3), while IDP settlements in Hargeisa, Laasanood, Bosaaso, and Mogadishu were classified as Stressed (IPC Phase 2) and Beledweyne as Stressed! (IPC Phase 2!). Across the 12 assessed settlements, an average 20 percent households had a 'borderline' Food Consumption Score, while 27 percent of households had a Household Hunger Score of 2-3, which are both indicative of Crisis (IPC Phase 3). A number of factors contribute to continued acute food insecurity among IDPs, including few assets (80 percent reported owning few to no livestock, productive, or domestic assets) and unstable or limited sources of income, as well as a higher reliance on market purchases to access food which renders them more vulnerable to market shocks such as price inflation. Across all assessed settlements, IDPs reported spending 75-87 percent of their total expenditures on food. Further, many IDPs have weak social and family/clan connections that offer vital forms of assistance in time of need.

Urban areas: Household survey data collected during the 2019 post-*Deyr* assessment indicates that the urban population in Crisis (IPC Phase 3) or Emergency (IPC Phase 4) more than doubled between July and December 2019 from 123,000 to 381,900. More than 75 percent of the urban population in Crisis (IPC Phase 3) is located in Burao, Hargeisa, Kismayo, and Mogadishu. An additional 898,500 urban people are classified as Stressed (IPC Phase 2). Across the 12 assessed urban centers, more than 80 percent of households on average had an 'acceptable' food consumption score or a Household Hunger Score (HHS) of 0-1, but an average 35 percent were engaged in stressed consumption-based coping mechanisms and an average 41 percent were engaged in stressed livelihoods coping strategies. In Burao and Kismayo, outcomes were notably worse, with 50-88 percent households reporting an HHS of 2-3 and 35 percent reporting crisis livelihoods coping strategies.

Acute malnutrition: At the national level, the prevalence of acute malnutrition has slightly improved compared to the 2019 *Gu* but has deteriorated compared to the 2018 *Deyr*. According to the 48 SMART surveys conducted in November and December

Figure 5. Results of outcome indicator data analysis from the post-*Deyr* rural household survey conducted in December 2019. Includes Food Consumption Score (FCS), Household Dietary Diversity Score (HDDS), Household Hunger Score (HHS), Reduced Coping Strategies Index (rCSI), Livelihoods Change (LHC).



2019 by FSNAU and partners, the median prevalence of Global Acute Malnutrition (GAM) as measured by weight-for-height z-score (WHZ) remains Serious (10-14.9 percent GAM WHZ) at 13.1 percent, compared to 13.8 percent in the 2019 *Gu* and 12.6 percent in the 2018 *Deyr*. Although food insecurity is a contributing factor, the high prevalence is also attributed to relatively high morbidity, low immunization and vitamin-A supplementation, and poor care practices. At the livelihood zone, IDP settlement, and urban level, **10 out of the 48 assessed population groups** show Critical (15 -29.9 percent GAM WHZ) acute malnutrition prevalence. The highest prevalence of acute malnutrition was recorded in pastoral areas of Bakool (20.4 percent), agropastoral areas of Bay (17.4 percent), and among IDPs in Mogadishu (16.8 percent).

Despite deterioration compared to the 2018 *Deyr* on the national level, significant improvement from the 2018 *Deyr* was observed in Coastal *Deeh* Pastoral and Fishing and Northern Inland Pastoral livelihood zones. Sustained humanitarian assistance and decreased incidence of Acute and Watery Diarrhea may have had a role to play in the decline in prevalence. However, significant deterioration in GAM and SAM prevalence was observed among Bay Agropastoral, Bakool Pastoral, Northwest Agropastoral, Bossaso IDPs and Kismayo IDPs while modest increases, but not statistically significant, were noted in Shabelle Riverine, Beledweyne District including Urban, Baidoa IDPs, Galkayo IDPs and Guban Pastoral. In summary, the total acute malnutrition burden in Somalia is estimated at 962 885 children under the age of five years likely facing acute malnutrition through December 2020, including 162 007 who are likely to be severely malnourished.

Assumptions

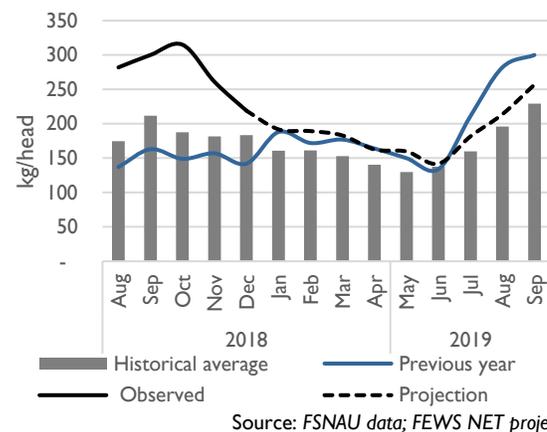
The February to September 2020 most likely scenario is based on the following national-level assumptions:

- According to FAO, ongoing desert locust breeding is expected to result in the emergence of new immature swarms beginning in March in the northeast. Hatching and development of new swarms are expected within high risk areas throughout the April to June *Gu* season, facilitated by conducive soil moisture and vegetation conditions (Figure 1). In addition, the northward shift of the seasonal monsoon winds in April and May is expected to lead to cross-border locust swarm movement from Kenya and Ethiopia back into Somalia. However, strong coastal headwinds are expected to relatively discourage the spread of locusts to coastal and adjacent inland areas in southern and central Somalia.
- Due to insecurity that prohibits aerial spraying, desert locust control measures are not expected to be large-scale or effective in southern Somalia. Due to financing constraints and delays and the logistical complexity of aerial spraying in areas with large livestock populations, control measures will likely be minimal to moderate in northern and central regions.
- According to CPC/IRI, NOAA/CPC, and C3S probabilistic forecasts and the GHACOF, rainfall in the April to June *Gu* season is most likely to be above average in southern Somalia and average in central and northern Somalia. Rainfall over the Juba and Shabelle river catchments in the Ethiopian highlands is likely to be average. However, rainfall may tend to below average in Northwestern Agropastoral livelihood zone. The forecast is driven by a likelihood of slightly warmer-than-normal Indian Ocean sea surface temperatures and neutral ENSO and IOD conditions through mid-2020.
- In Shabelle and Juba riverine areas, river water levels are likely to support off-season crop irrigation through March in downstream areas of Lower Shabelle and through April in other riverine areas. Based on the *Gu* rainfall forecast, river levels are expected to rise from April to June and flooding is expected in open breakages and weak river embankment points.
- Probabilistic forecasts currently indicate the June to September *Xagaa* coastal showers in the Shabelle and Juba regions and the July to September *Karan* rains in northwestern Somalia are most likely to be average. However, uncertainty exists given the long-term nature of these forecasts.
- Given current above-normal vegetation, water, and soil moisture levels, coupled with Land Surface Temperatures that have remained below the short-term (2002-2018) mean since mid-January, pasture and water availability is expected to decline but range from above-normal to normal through the remainder of the *Jilaal* dry season. During the *Gu*, the forecast of average to above-average rainfall is expected to mitigate some of the effects of the desert locust infestation by regenerating vegetation, but atypical pasture loss and atypical livestock migration is likely. Locust damage in high risk areas – especially in Hawd Pastoral livelihood zone – and the increased likelihood of livestock overgrazing in areas that retain vegetation is expected to result in widely below normal vegetation availability through the July to September *Xagaa* dry season.
- According to FSNAU crop production data collected during the December 2019 post-*Deyr* assessment, total off-season *Deyr* cereal production is estimated to be 9,200 MT, which is 279 percent of the five-year average. The harvest will be in March and April. At the regional level, however, off-season production prospects vary from below average in Lower Shabelle and Bay to above average in Middle Juba, Lower Juba, and Middle Shabelle.
- Given the *Gu* rainfall forecast, area planted and agricultural labor demand during the *Gu* cropping season in the south is

most likely to be normal. However, the national main and off-season *Gu* harvest from July to September is most likely to be 15-25 percent below average due to anticipated crop losses caused by desert locust in locust-infested areas and flooding in riverine areas. Above-average yields are anticipated in agropastoral areas with a low risk of locust infestation – including lower Bay, Middle Shabelle, and Lower Shabelle that typically account for up to 70 percent of the *Gu* harvest.

- Based on the likelihood of below-average *Gu* rainfall in Northwestern Agropastoral livelihood zone, short-cycle maize will likely be below average. The forecast of average *Karan* rains in July to September will likely support long-cycle sorghum; however, moderate crop losses from desert locust are expected. Overall, the *Gu/Karan* harvest is likely to be below average.
- Based on current normal to above-normal pasture availability and forecast *Gu*, and the expectation of atypical livestock migration within wet season grazing areas to cope with locust damage, livestock body conditions are likely to be normal through June. However, deterioration in body conditions is expected during the *Xagaa* due to below-normal vegetation conditions and the likelihood that some poor pastoral households will be unable to afford the cost of migration to distance grazing areas.
- Based on conception levels during the 2019 *Deyr*, medium levels of calving, kidding, and lambing are expected from March to June across the country, except in Guban Pastoral livelihood zone where livestock births are expected to be low.
- Based on recent kidding and calving levels and forecast weather and rangeland conditions, milk availability is expected to decline to below-normal levels in most northern and central livelihood zones through March but will follow seasonal trends in the South. Given anticipated medium kidding and calving levels in the *Gu*, milk availability is expected to follow normal, seasonal trends from April to September across the country.
- Based on average 2019 national cereal production in source markets in Ethiopia and based on high availability of international staple food commodities (rice, wheat flour, vegetable oil, sugar), regional cereal imports and international food imports are expected to be normal through September.
- Based on current and anticipated *Deyr* and *Gu* cereal production, as well as anticipated food imports, FEWS NET's integrated price analysis in Baidoa and Qoryoley reference markets indicates that the price of sorghum and maize is most likely to range from average to slightly below-average levels through September in most key reference markets. Meanwhile, the price of imported staple foods such as rice and wheat flour are most likely to follow seasonal trends at near normal levels.
- Based on livestock supply levels and a seasonal increase in export demand during the Ramadan (April-May 2020) and Hajj (July-August 2020) season, FEWS NET's integrated price analysis in Baidoa, Burao, and Galkacyo reference markets, livestock prices are likely to follow seasonal trends and remain average in the South, while livestock prices are likely to be above average in central and northern Somalia.
- Based on FEWS NET's integrated analysis of cereal prices, local quality goat prices, and daily labor wage rates, the goat-to-cereal terms of trade (TOT) are expected to range from average to above-average from April to September in most key reference markets (Figure 6). The labor-to-cereal TOT are expected to similarly range from average to above average and will peak after the July-September *Gu* harvest, though localized areas may see declines due to localized crop losses.
- Based on seasonal factors affecting milk availability, including livestock births and rainfall, milk prices are expected to rise through the end of March and again during the *Xagaa* dry season. Milk prices are expected to decline during the *Gu* when milk availability is expected to increase as more livestock give birth.
- Based on past trends, conflict between al-Shabaab and government and external forces is expected to persist in south-central Somalia through September, particularly during the dry seasons. There is also an elevated likelihood of an increase in conflict events in 2020, as the government and allied regional state authorities seek to expand into areas controlled by insurgents in advance of the 2020-2021 parliamentary and presidential elections and in advance of the planned withdrawal of AMISOM forces. Conflict is expected to cause loss of assets and human lives, cause new displacement, restrict trade and humanitarian movements, and permit illicit taxation via roadblocks.

Figure 6. Observed and projected goat-to-maize terms of trade, Qoryoley, Lower Shabelle



- Clan conflicts over land ownership and resource management in Lower Shabelle, Hiiraan, and Galgaduud are expected to continue through September, periodically disrupting trade and normal population movement, suspending crop cultivation, and reducing agriculture labor opportunities.
- Although the Somalia Food Security Cluster has planned to reach at least 1.89 million per month with humanitarian food assistance in February and March, insufficient funding is most likely to reduce the actual number of people reached with food assistance. Current delivery trends in January 2020 (1.2 million reached) and past delivery trends in January-March of 2019 (1.1 million reached on average) suggest approximately 1-1.2 million people will be reached with emergency in-kind or cash/voucher assistance. Due to restricted humanitarian access, food assistance is not expected to be delivered in Middle Juba, most of Lower Juba and Lower Shabelle, Tayeglow district of Bakool, eastern Galgaduud, and parts of rural Hiiraan. From April to September, food assistance is not yet planned or funded and an absence of food assistance is assumed.

Most Likely Food Security Outcomes

From February to September, the population in Crisis (IPC Phase 3) or Emergency (IPC Phase 4) in need of urgent humanitarian food assistance is expected to rise by 40 percent to 1.61 million people. The increase in the acutely food insecure population is anticipated to be driven by damage to crops and rangelands by desert locust in current and potential spread areas and by a consecutive season of flooding in Juba and Shabelle riverine areas. Although insecurity and conflict are expected to continue throughout the scenario period, the impacts on food security are not anticipated to drive a change in area-level food security outcomes. Areas that are expected to be in Crisis (IPC Phase 3) include: Riverine Pump Irrigation and Riverine Gravity Irrigation livelihood zones, where poor households are expected to earn below-average income due to floods that will diminish the main season *Gu* harvest in July; Low Potential Agropastoral areas of northern Bay and southern Bakool, where poor households are least resilient to shocks and crop losses caused by desert locust will lead to below-average food and income sources from the *Gu* production season; Northwestern Agropastoral livelihood zone, where below-average *Gu* rainfall and crop losses from desert locust will reduce household food and income sources; and northern and central pastoral areas, where livestock assets remain low and household income will be insufficient to meet both their minimum food needs and the costs associated with atypical migration. The prevalence of acute malnutrition is likely to follow a seasonal trend, with deterioration likely in some rural livelihoods between February and June due to seasonal spikes in childhood illnesses and reduced access to food.

Rural livelihood zones: From February to May, above-average *Deyr* household food stocks, normal agricultural labor demand during the *Gu*, and seasonal gains in livestock production during the *Gu* are expected to sustain Stressed (IPC Phase 2) outcomes in most pastoral and agropastoral areas. Meanwhile, the availability of labor income and own-produced crops with the off-season *Deyr* harvests in March is expected to drive improvement from Crisis (IPC Phase 3) to Stressed (IPC Phase 2) in riverine areas. Agricultural labor income will be seasonally high in March and April, while the *Gu* cohort of livestock births will offer a seasonal increase in milk consumption and an opportunity to sell mature sheep and goats. However, as desert locust hoppers develop in the northwest and northeast and as the climatic shift in the monsoon winds encourage desert locust movements from Ethiopia and Kenya back into Somalia, crop losses at the vegetative stage and localized pasture losses in April/May are expected in livelihood zones on the border with Ethiopia. Further, floods in late April and May in riverine areas are likely to significantly damage main season crops. An increasing number of people are expected to deteriorate to Crisis (IPC Phase 3) over the course of this period – particularly in the absence of planned and funded food assistance after March – either due to the loss of weeding labor income or own-produced crops, the costs of replanting and atypical migration to other areas, or the need to sell more livestock to meet food and water purchases. Guban Pastoral, East Golis Pastoral of Northwest, Hawd Pastoral of Central and Northeast, and Addun Pastoral of Central are of high concern and will likely be in Crisis (IPC Phase 3).

From June to September, more widespread deterioration to Crisis (IPC Phase 3) is expected in riverine and pastoral areas, as well as low potential agropastoral areas in northern Bay and southern Bakool. In riverine areas, poor households are likely to face food consumption gaps due to the loss of labor income and own-produced crops during the June to July main season harvesting period. Although off-season crop production is expected to occur as flood waters recede and desert locusts migrate northward toward summer breeding areas, the off-season harvest does not typically begin until late August or September. In Bay-Bakool Low Potential Agropastoral livelihood zone, the loss of income and food stocks due to the desert locust upsurge is similarly expected to lead to food consumption gaps, as poor households in this livelihood zone have few livestock assets or other income sources to rely upon. In central and northern pastoral areas, the atypically fast depletion of rangeland resources due to desert locusts during the *Xagaa* dry season is expected to increasingly constrain poor households' food and income sources. Some pastoralists may be compelled to migrate to distant grazing areas, with increased costs for migration, water, and food purchases for both human and livestock consumption. This will only amplify existing food consumption gaps among poor households who already have unsustainable herd sizes, including in Guban Pastoral, East Golis Pastoral of Northwest, Addun

Pastoral of Central, and Hawd Pastoral of Central. However, as the presence of desert locust is not likely to be as prevalent in the south, southern pastoral areas are largely expected to sustain Minimal (IPC Phase 1) or Stressed (IPC Phase 2) outcomes following two consecutive seasons of above-average rainfall with near-average to above-average herd sizes.

IDP settlements: In the absence of food assistance after March, food security in urban IDP settlements is expected to decline due to limited livelihood opportunities and livelihood assets that drive low purchasing power. The influx of IDPs to urban centers is also expected to increase competition for labor, reducing household income for food purchases. IDPs are vulnerable to several types of shocks following displacement, including contagious disease outbreaks, high disease risk due to poor hygiene and sanitation in congested informal settlements, physical insecurity and evictions, and adverse exposure to high temperatures and rain due to poor housing environments. Consequently, from February through September, 585,000 IDPs in urban settlements are projected to remain in Crisis (IPC Phase 3) or deteriorate from Stressed (IPC Phase 2) to Crisis (IPC Phase 3).

Meanwhile, the number of rural IDPs in Crisis (IPC Phase 3) or Emergency (IPC 4) is expected to increase from 32,000 to 61,000 from February to September. Most rural IDPs are pastoralists or agropastoralists that have become destitute and are living in rural, host community villages where they can access social/kinship support (including food and milk gifts), access labor employment, and/or enter into share-cropping arrangements with better-off households. As a result, they are likely to be impacted by desert locusts through reduced crop production, reduced agricultural labor demand, and reduced social support from host community members who are similarly affected by reduced income.

Urban areas: From February to September, most urban populations are projected to remain Stressed (IPC Phase 2). However, Kismayo will likely sustain Crisis (IPC Phase 3) due to the high presence of destitute refugees who have returned from Kenya and IDPs from riverine areas in Middle and Lower Juba. The expected magnitude of seasonal, local grain price declines after the *Deyr* harvest is unlikely to significantly improve the purchasing power of the urban poor. Closely tracking these cereal price movements, the Consumer Price Index will likely decline moderately through March 2020 due to the expected decline of sorghum prices in the post-harvest period as well as likely stability in the prices of imported commodities in the Minimum Expenditure Basket. However, these are likely to increase again during the agricultural lean season, due to increased market demand for grain. Competition for labor opportunities in urban areas will persist, as IDPs compete with the urban poor for the same income-earning opportunities. Insecurity will also remain a major risk factor for food access of urban households, particularly in south-central Somalia, where violent disruptions to urban life tends to exert upward pressure on food prices.

Events that Might Change the Outlook

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

Area	Event	Impact on food security outcomes
National	Below-average <i>Gu</i> rainfall	Coupled with the desert locust infestation, below-average <i>Gu</i> rainfall would likely result in significantly below-normal <i>Gu</i> cereal and livestock production. Poor households would face reductions in agricultural labor income, social support, and own-produced food stocks, increased expenditures on water and fodder, and little access to milk. This would likely lead to an increase in the population in Crisis (IPC Phase 3) or Emergency (IPC Phase 4) and deterioration to Crisis (IPC Phase 3) in additional agropastoral livelihood zones.
North/central pastoral areas and Bay Bakool agropastoral areas	Limited spread and mild impacts from desert locust upsurge	Limited crop and pasture losses from desert locust would avert a decline in weeding and harvesting labor demand, decline in livestock productivity, and an increase in atypical migration. Most northern and central pastoral areas would remain Stressed (IPC Phase 2), except Guban Pastoral and Hawd and Addun Pastoral of Central. High agricultural labor income, below-average sorghum prices, and the <i>Gu</i> harvest would likely improve food security in Bay Bakool agropastoral areas to Minimal (IPC Phase 1) by August.
Riverine areas, Northwestern Agropastoral livelihood zone	Average <i>Gu</i> rainfall	Average <i>Gu</i> rainfall in riverine areas and upper river catchments in Ethiopia would result in minimal river floods and flash floods, reducing the level of displacement and crop damages. The average off-season <i>Deyr</i> harvest followed by an average <i>Gu</i> harvest would likely sustain Stressed (IPC Phase 2) outcomes in Riverine Gravity Irrigation zone and drive improvement to Minimal (IPC Phase 1) in Riverine Pump Irrigation zone. Average <i>Gu</i> rainfall in Northwestern Agropastoral livelihood zone would improve livestock production and support average <i>Gu/Karan</i> maize cultivation, which would sustain Stressed (IPC Phase 2) outcomes.

AREAS OF CONCERN

Riverine Gravity Irrigation Livelihood Zone of Lower Juba, Middle Juba, and Middle Shabelle Regions

Current Situation

Severe river flooding during the 2019 *Deyr* season inundated approximately 80 to 90 percent of arable land in riverine areas and displaced nearly 70,000 people (48 percent of the riverine population). Only 6,160 ha of maize, cowpea and sesame were harvested during the main harvesting period of January/February 2020 due to slowly receding flood waters, excessive soil moisture, and weed pressure. According to FSNAU crop production data, only 1,400 MT and 250 MT of maize were harvested in Middle Shabelle and Juba, respectively. Receding flood waters in Middle and Lower Juba permitted the start of off-season cultivation by December, though at lower levels in Jamaame district of Lower Juba and Middle Shabelle. There have been no reports of desert locust in these riverine areas.

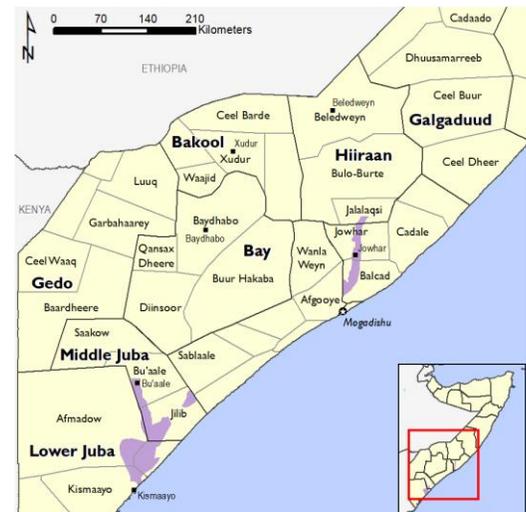
Due to prevailing trends in the labor wage and local cereal prices, household purchasing power is currently below average in Middle and Lower Juba. Due to restricted trade flows as a result of floods during the *Deyr*, tight supply after the 2018/2019 drought, and the delay in the *Deyr* 2019 main cereal harvest, cereal prices currently remain above average. On average, the local maize price was 28 percent above the five-year average in January in the riverine reference markets of Buale, Jamame, Jilib, and Sakow in Middle and Lower Juba. At the same time, flooding restricted poor households' ability to migrate in search of labor. Although the daily wage rate began to recover in January, the wage rate in Rahole reference market of Buale district in Middle Juba was still 55 percent below January 2019 and the January five-year average (Figure 8). As a result, the daily agricultural labor wage in Rahole rural reference market of Middle Juba fetched only 2 kg of white maize in January 2020, a drastic reduction to 78 and 71 percent below the January 2019 and the five-year average, respectively.

In contrast, the terms of trade are above average in Middle Shabelle, where many poor households have been able to migrate to neighboring agropastoral areas and riverine areas not affected by floods in search of labor opportunities. In January, competing demand for main season harvest labor in agropastoral areas and recessionary cultivation labor in riverine areas drove the agricultural labor wage in Walamoy reference market of Jowhar district in Middle Shabelle to 19 percent above January 2019 and 28 percent above the five-year average. At the same time, the maize price declined to 10 percent below the five-year average, though still 36 percent above January 2019. As a result, the daily agricultural labor wage in January fetched 7kg of white maize, which is 17 and 40 percent above January 2019 and the five-year average, respectively.

In downstream riverine areas, most poor households do not own livestock other than chickens and they typically purchase milk from the market or middle and better-off households. However, unlike the rest of the country, livestock typically migrate away from riverine areas during the wet seasons to avoid the heightened risk of water-borne disease and infection. Due to the decline in local milk supply, the price of milk rose during the *Deyr* and poor households' milk consumption has declined. In Juba riverine reference markets (Buale, Jamame, Jilib and Sakow), cattle milk prices rose by 30 percent from December to January and are now 22 percent above the five-year average. However, other food and income sources have helped to mitigate the loss of labor income. For example, fish and wild vegetables have increased in availability for consumption and sale. In addition, many poor households are able to collect and sell charcoal or firewood during the *Jilaal* dry season. In January, a bag of charcoal fetched 33-35 kg of maize, which is approximately one-third below the terms of trade in January 2019.

Given poor humanitarian access in this livelihood zone, food assistance remained low to none from November to January. In Middle Shabelle, 7 and 19 percent of the population in Balcad and Jowhar districts, respectively, received cash vouchers. Of this population, it is estimated that 62 percent are IDPs displaced by the violence, who are camping inside Jowhar towns, while the remainder are from rural areas near the towns. Key informant information suggests riverine households were unable to access any food assistance due to tightened restrictions imposed by the insurgents as well as frequent air and ground clashes. Intense military activity between national security forces supported by AMISOM against insurgents have also pressurized trade activities. Suicide bombs and attacks targeting public institutions, installations, and prominent figures continue to kill both civilian and government staff and reduce the implementation of economic development projects.

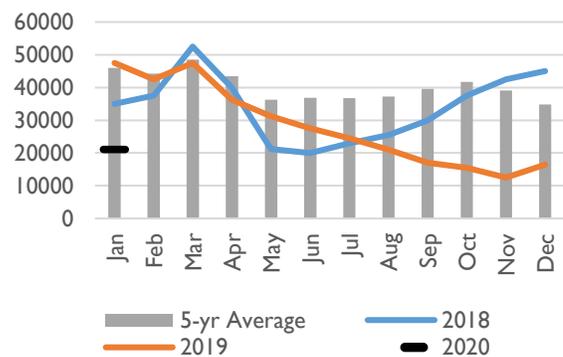
Figure 7. Area of concern reference map, Riverine Gravity Irrigation livelihood zone



Source: FEWS NET and FSNAU

Food security and livelihoods change data collected during the FSNAU December 2019 post-*Deyr* household survey indicated Stressed (IPC Phase 2) outcomes in Shabelle riverine areas. Due to access restrictions, only contributing factor information could be collected in Juba riverine areas and Crisis (IPC Phase 3) is inferred. In Middle Shabelle, better access to labor opportunities and proximity to urban areas to sell charcoal, fish, and other bush products has provided income to meet poor households' minimum food needs. More than 80 percent of all households reported an acceptable Food Consumption Score and 100 percent of households reported a Household Hunger Score of 0-1, while 17 percent reported use of stressed consumption-based coping strategies. However, more than 20 percent of households were engaged in stressed or crisis livelihoods coping, primarily borrowing money. In Middle and Lower Juba, it is inferred that outcomes were one phase worse and indicative of Crisis (IPC Phase 3), based on similar livelihoods but lower labor demand, below-average labor wages, below-average labor-to-cereals terms of trade, and no humanitarian access. Many poor households are relying on credit to purchase food, given the early exhaustion of below-average *Gu* 2019 maize stocks and the loss of agricultural labor income during the *Deyr* cropping season. In both riverine areas, the GAM (WHZ) prevalence has deteriorated to 15 percent (CI: 11-19.6) or 'Critical' levels (GAM WHZ 15-29.9 percent) compared to 13.2 percent (CI: 10.2-16.9) in the *Gu* 2019. This is primarily attributed to high morbidity (22.4 percent) and associated with poor sanitation, poor child feeding practices, poor health services, and increased water borne disease incidence. Severe acute malnutrition is 2 percent (CI:1.1-2.6) and similar to July 2019 levels of 2.2 percent (CI: 1.2-4).

Figure 8. Observed agricultural labor wage rate in Rahole of Buale district, Middle Juba



Source: FSNAU price data

Assumptions

In addition to the national assumptions, the following assumptions are made for Riverine Gravity Irrigation livelihood zone:

- In March and early April, the off-season *Deyr* harvest in Middle and Lower Juba is expected to be near average. In Middle Shabelle, a significantly below-average *Deyr* off-season harvest is expected.
- Given the strong *Xagaa* coastal winds, the risk of desert locust spreading to riverine areas in this livelihood zone is low. However, damage to crops from floods is expected to result in a poor main *Gu* season harvest. Off-season crop production from June to September is likely to be at least average.
- Labor demand is likely to increase from February to April as *Deyr* off-season cropping activities and *Gu* land preparation and planting intensifies in both Middle Shabelle and Middle Juba riverine areas. However, based on anticipated river flooding, labor demand is expected to be low in May and June. Labor demand and wage rates will rebound from July to September as *Gu* off-season cultivation activities intensify.
- Based on FEWS NET's integrated price projections, maize prices in Rahole market of Buale district in Middle Juba and in Walomoy market of Jowhar districts in Middle Shabelle are likely to decline beginning in February as the *Deyr* harvest maize from agropastoral areas enter into riverine main markets. However, the decline will be muted by poor riverine maize *Deyr* production and the continued high transaction costs associated with the insecurity.
- Market milk availability will likely increase during the *Jilaal* season (January-March) as livestock migrate back towards riverine livelihood zones to access green pasture and free water. However, market milk availability will again seasonally decline during the wet *Gu* (April-June) period as pastoralists migrate away from riverine areas.

Most Likely Food Security Outcomes

From February to May, the start of the off-season *Deyr* harvest in March is expected to drive improvement to Stressed (IPC Phase 2) in riverine areas of the Jubas, where the off-season harvest will be near average and household stocks will likely last for 1-2 months. Meanwhile, Stressed (IPC Phase 2) outcomes are likely to be sustained in Middle Shabelle, where the off-season harvest will be below average. Income from off-season *Deyr* harvest labor and income from the start of *Gu* planting activities, coupled with seasonal sales of fish and wild foods and declining local cereal prices, is anticipated to permit most poor households to meet their minimum food needs through April. However, the negative impacts of river flooding on *Gu* cropping activities from May to July is expected to lead to the reemergence of Crisis (IPC Phase 3) outcomes in the Jubas and deterioration to Crisis (IPC Phase 3) in Middle Shabelle by the June to September period. In the Jubas, poor households will have depleted their off-

season *Deyr* stocks and are likely to be cut off from *Gu* labor opportunities in agropastoral areas due to the floods. In Middle Shabelle, where the total *Deyr* harvest was only half of normal and households have subsisted on labor income, the second consecutive flood shock is expected to cause at least 20 percent of households to experience food consumption gaps. In addition to earning less income that will reduce poor households' access to food, rising milk prices are also likely to reduce milk consumption. Although the recession of flood waters in July will bring the start of off-season *Gu* cultivation activities and rising labor demand, poor households are likely to remain in Crisis (IPC Phase 3) until the off-season harvest in September.

Riverine Pump Irrigation Livelihood Zone of Hiiraan Regions

Current Situation

Households in Riverine Pump Irrigation livelihood zone of Hiiraan were among those worst affected by river flooding during the October to December *Deyr* rainfall season. The floods inundated and destroyed more than 5,000 ha of cropped land, equivalent to 52 percent of total area planted prior to the floods. No desert locust damage was reported, though neighboring agropastoral areas in Buloburte district did report localized damage to sorghum and sesame. Due to the floods, many poor households lost significant sources of food and main season weeding and harvest agricultural labor income, though some households were able to seek labor opportunities in neighboring areas. Main season *Deyr* 2019 cereal production was estimated at 2,110 MT, 37 percent and 28 percent below the 2018 *Deyr* (3,360 MT) and *Deyr* five-year average (2,940 MT). On average, poor households' own food stocks were enough for one to two months and only lasted through early to mid-February.

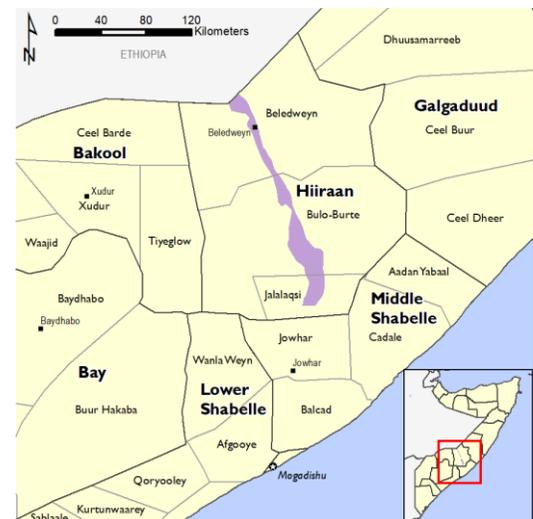
Information on livestock assets was not collected during the 2019 *Deyr*, but baseline information suggests poor households in upstream riverine areas typically own up to four sheep/goats and up to three cattle. Above-average rainfall significantly replenished pasture and water resources, to the benefit of cattle and goat body conditions and livestock conception rates. However, due to low conception rates in the 2018/2019 drought, milk availability for consumption and sales is significantly below normal. Low milk supply on the market drove cattle milk prices up to 14 percent above the 2019 and five-year averages in December 2019 and January 2020. Although this may have boosted the value of the minimal milk produced by poor households' livestock, most poor households realized a net loss in income from milk sales. High prices also reduced poor households' ability to purchase milk for consumption.

As a result of lost income from agricultural labor and milk sales combined with an atypical rise in maize prices, poor households' purchasing power declined through December. Local crop losses and reduced trade flows during the floods drove the price of a kg of white maize up to SOS 11,000 in December in Beledweyne and Buloburte reference markets, which is 16 percent above the five-year average. By January, the gradual re-opening of trade routes, high levels of food assistance that mitigated market demand, and the start of the *Deyr* harvest in agropastoral areas helped to drive prices down to SOS 9,000, which is near the five-year average. Similarly, the influx of humanitarian food assistance under the flood response helped to maintain stable imported food commodity prices despite the effect of reduced trade flows on market supply.

Similar to other riverine areas, insecurity significantly limits access to food assistance. Insurgents control all rural livelihood zones in Hiiraan, which restricts the distribution of food assistance to rural areas. According to the Somalia Food Security Cluster, food assistance reached an average of 205,240 people per month (33 percent of the population) with food or cash voucher assistance on the regional level from November 2019 to January 2020. Due to access constraints, it is assumed that the distribution of assistance was heavily weighted to main towns and riverine areas near the towns in Beletweyne and Buloburte.

Based on data collected during the FSNAU post-*Deyr* household survey, the availability of household stocks in February, and current household purchasing power, it is expected that food assistance is currently playing a significant role in preventing poor households' food consumption gaps and has led to Stressed! (IPC Phase 2!) outcomes. However, at least 15 percent of the population is most likely experiencing Crisis (IPC Phase 3) or Emergency (IPC Phase 4) outcomes. Although 96 percent of households reported an acceptable food consumption score and 90 percent reported no use of consumption-based coping strategies, approximately 20 percent of households were experiencing at least moderate hunger or were engaged in selling household assets. Increased waterborne disease incidence and an increase in morbidity to 14.7 percent, along with constrained food access, is also driving a 'Critical' level of acute malnutrition (GAM WHZ 15.3 percent).

Figure 9. Area of concern reference map, Riverine Pump Irrigation livelihood zone



Source: FEWS NET and FSNAU

Assumptions

In addition to the national assumptions, the following assumptions are made for Riverine Pump Irrigation livelihood zone of Hiiraan:

- The off-season harvest of an estimated 1,085 MT of maize, 600 MT of sorghum, and cash crops (sesame, tomato, and onion) is expected to occur from late March to mid-April. Although the bulk of the harvest is produced by middle and better-off households, labor demand will be seasonally high and poor households are expected to receive grain as social support.
- Although labor demand for *Gu* land preparation and planting activities is most likely to be normal in April, flooding in late April and May in upstream areas is expected to suspend cropping activities and cause population displacement. In addition, the desert locust upsurge is likely to spread to northern Hiiraan during the April-June growing period, especially in Beledweyne district. As a result, the main season *Gu* harvest and agricultural labor demand are likely to be significantly below average from May to July.
- From late July to September, off-season *Gu* agricultural labor demand and wage rates are expected to rebound as flood-recession activities among middle and better-off households begin. The off-season *Gu* harvest is likely to be below average due to the presence of desert locust.
- Based on FEWS NET's integrated price projections for Beledweyne reference market, the price of maize is expected to range from near- to above the five-year average through September. Prices are expected to peak at around SOS 18,000 per kg in June given the poor *Gu* main harvest and decline to 12,600 SOS with the off-season *Gu* harvest in September.

Most Likely Food Security Outcomes

From February to May, income from off-season agricultural labor, green off-season consumption and access to off-season grains as support from middle and better-off households, and income from *Gu* land preparation and planting activities are expected to maintain Stressed (IPC Phase 2) outcomes on the area level. However, some poor households are likely to experience Crisis (IPC Phase 3) or Emergency (IPC Phase 4) outcomes. Additional households are likely to deteriorate to Crisis (IPC Phase 3) following the occurrence of river floods in April and May, which are expected to significantly damage *Gu* crops and cause a decline in agricultural labor income. The spread of the desert locust upsurge to northern Hiiraan by April and May will also contribute to significant reductions in the main *Gu* harvest. As a result, Crisis (IPC Phase 3) outcomes are expected from June to September, with low household income exacerbated by limited access to green consumption and own-produced food stocks in June and July and atypically high staple food prices. Most poor households are likely to have food consumption gaps until the off-season *Gu* harvest is underway in late August/September. Access to off-season agricultural labor and income (planting, weeding and harvesting) from late June to mid-September; access to grain as *zakat* from wealthier households; and labor migration to urban centers such as Beledweyne, Galkayo, and Mogadishu will likely mitigate larger food gaps and prevent deterioration into Emergency (IPC Phase 4).

Addun Pastoral Livelihood Zone of Central Regions

Current Situation

This analysis excludes Addun Pastoral of Northeastern regions, where Stressed (IPC Phase 2) outcomes are expected. In the Northeast, the typical poor household currently holds an average of 3 camels and 51 goats/sheep. Rainfall in the 2018 Deyr and 2019 Gu was sufficient to support livestock health and value, while interclan relations and security permitted better migration options and access to food aid.

Although above-average *Deyr* rainfall performance brought much needed relief to central Addun Pastoral livelihood zone after the 2018/19 drought, livestock herd size recovery has continued to stagnate. Replenished water and pasture resources supported some livestock conceptions during the *Deyr*, but the *Deyr* 2019 birth cohort was low due to abortions, death, and distressed livestock sales during the drought. Based on data collected during the 2019 post-*Deyr* field assessment, the typical poor household currently owns only 24 goats/sheep and 2 camels compared to 28 goats/sheep in the 2019 *Gu* and 57 goats/sheep and 3 camels at baseline. Consequently, herd sizes remain at unsustainable levels and milk consumption and sales are currently low. Locusts are present in the eastern part of the livelihood zone and multiplying.

Other income sources and social support also remain low. Charcoal sales, which provides a minor source of income during the dry season, offers limited expandability as many poor households rely on a limited supply of vegetation. Wage labor income from construction and rehabilitation of *berkads* (wells) is also lower than normal, as the economic impact of the preceding

drought has resulted in both an oversupply of labor and low demand. Further, even middle and better-off households have seen declines in their livestock holdings due to recurrent drought, which has reduced the level of cash and in-kind social support that poor households usually receive.

Given limited income and saleable assets, household purchasing power remains low despite above-average goat-to-rice terms of trade. In January, the sale of one local quality goat could purchase 43 kg of rice in Dhusamarreeb reference markets in Galgaduud region and 91 kg in Galkacyo reference market in Mudug region. The terms of trade are 8 and 38 percent above the five year average in Dhusamarreeb and Galkayo, respectively, though 9-14 percent below January 2019. As a result, poor households are heavily relying on credit to purchase food and essential non-food items. On average, poor households reported a debt level of 390 USD, which is roughly equivalent to the value of 10-11 goats. In addition, food assistance levels are lower than earlier in 2019. According to the Somalia Food Security Cluster, cash voucher and in-kind food assistance reached only 9-16 percent of the district-level population from November to January. In Dhusamarreeb, most of this assistance targets IDPs.

Due to significantly below-normal household income and constrained food access, most poor households are experiencing Crisis (IPC Phase 3) outcomes. Based on data collected during the post-*Deyr* 2019 household survey, 17 percent of households reported a 'borderline' Food Consumption Score, while 32 percent reported a Household Hunger Score of 2-3 and 31 percent reported use of crisis livelihoods coping strategies. In addition, the results of a Household Economy Approach (HEA) outcome analysis indicates that the 'very poor,' who represent 4 percent of the zone's population, have a 20 percent survival deficit while the 'poor,' who represent 31 percent of the zone's population, have a 79 percent livelihoods protection deficit. The acute malnutrition prevalence observed in December was 'Serious' (GAM WHZ 10-14.9 percent), with a GAM prevalence of 11.4 (CI: 8.5-15.2) and a SAM prevalence of 1.5 (CI: 0.7-3.0).

Assumptions

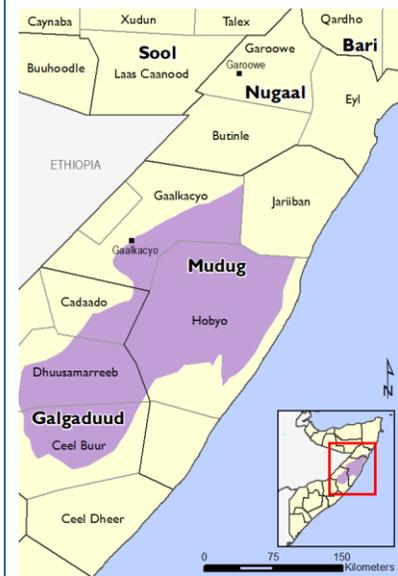
In addition to the national assumptions, the following assumptions are made for Addun Pastoral livelihood zone of Central:

- Desert locusts are likely to cause pasture loss in eastern parts of Addun Pastoral livelihood zone, but a lack of favorable vegetation for locusts in most of the livelihood zone and the strong coastal winds are expected to mitigate their spread. However, in-migration of livestock is anticipated from neighboring Hawd Pastoral of Central livelihood zone, where high locust infestation is expected, which is likely to result in some overgrazing, lead to atypical migration patterns within Addun, and potentially increase the risk of resource-based interclan conflict.
- Based on low herd sizes, livestock births and milk production will likely remain low to medium during the *Gu*. No camel births are expected among poor households during the scenario period. With the maturation of some offspring during the *Gu*, a maximum of three-four non-breeding goats are likely to be of saleable age.
- Based on FEWS NET's integrated price analysis, the price of a local goat in Galkayo reference market in Mudug is expected to range from 5 to 10 percent above the five-year average through September, peaking in August. This is based on good body conditions from favorable rainfall, high demand during Ramadan and Hajj seasons, and below-normal market supply.

Most likely food security outcomes

Crisis (IPC Phase 3) is expected to be sustained throughout the scenario period, and some households are likely to be in Emergency (IPC Phase 4). The HEA outcome analysis results indicate that very poor and poor households are likely to continue to face a survival deficit and a large livelihoods protection deficit, respectively, which is indicative of Crisis (IPC Phase 3). In addition, FEWS NET's herd dynamics analysis suggests full livestock herd recovery, which relies on consecutive seasons of favorable rainfall, could take up to five years. Based on a low number of marketable or milking animals, limited income from charcoal sales and wage labor, and below-normal social support, poor households' food and income sources will remain constrained through September. Poor households are likely to either have food consumption gaps or to engage in unsustainable livestock sales to pay off debt and meet their food needs. Purchases of food on credit will remain of high importance, although access to credit is increasingly constrained by high indebtedness. During the *Gu* season (April-June) and during Ramadan and Hajj (May-August), some slight improvements may be realized from low to medium livestock births and the maturation of two-four sheep/goats, a consecutive season of favorable pasture and water availability, and a slight increase

Figure 10. Area of concern reference map, Addun Pastoral livelihood zone



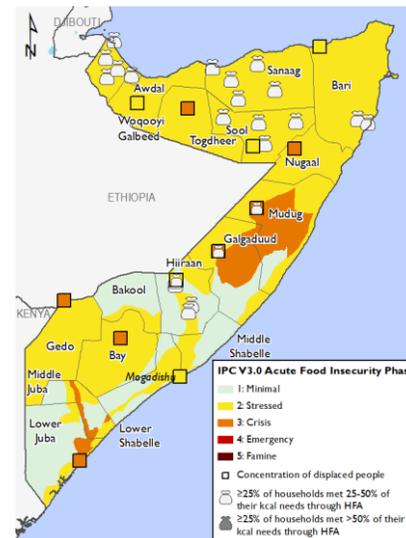
Source: FEWS NET and FSNAU

in gifts such as milk from wealthier households. Despite this, milk consumption will remain very low as most female camels are dry and no camel births are expected in the scenario period. Further, the likelihood of atypical deterioration in pasture resources will rise from June to September, driven by desert locust in eastern parts of the livelihood zone and by in-migration of livestock from neighboring Hawd Pastoral livelihood zone. Some poor households are likely to be compelled to migrate to other grazing areas, incurring costs such as water purchases, while competition for resources could lead to inter-clan resource-based conflict.

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

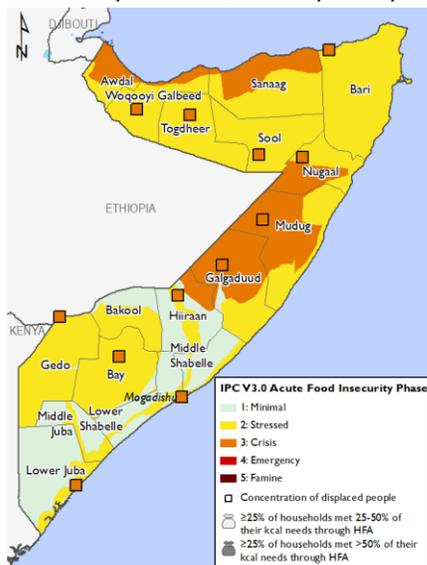
Each of these maps adheres to IPC v3.0 humanitarian assistance mapping protocols and flags where significant levels of humanitarian assistance are being/are expected to be provided. 🏠 indicates that at least 25 percent of households receive on average 25–50 percent of caloric needs from humanitarian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

Current food security outcomes, February 2020



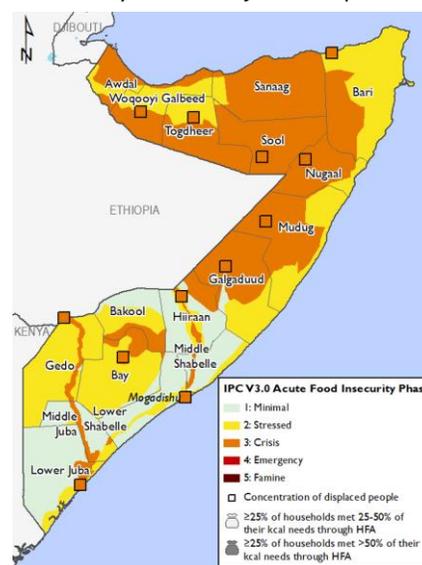
Source: FEWS NET and FSNAU

Projected food security outcomes, February to May 2020



Source: FEWS NET and FSNAU

Projected food security outcomes, June to September 2020



Source: FEWS NET and FSNAU

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

ABOUT SCENARIO DEVELOPMENT

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