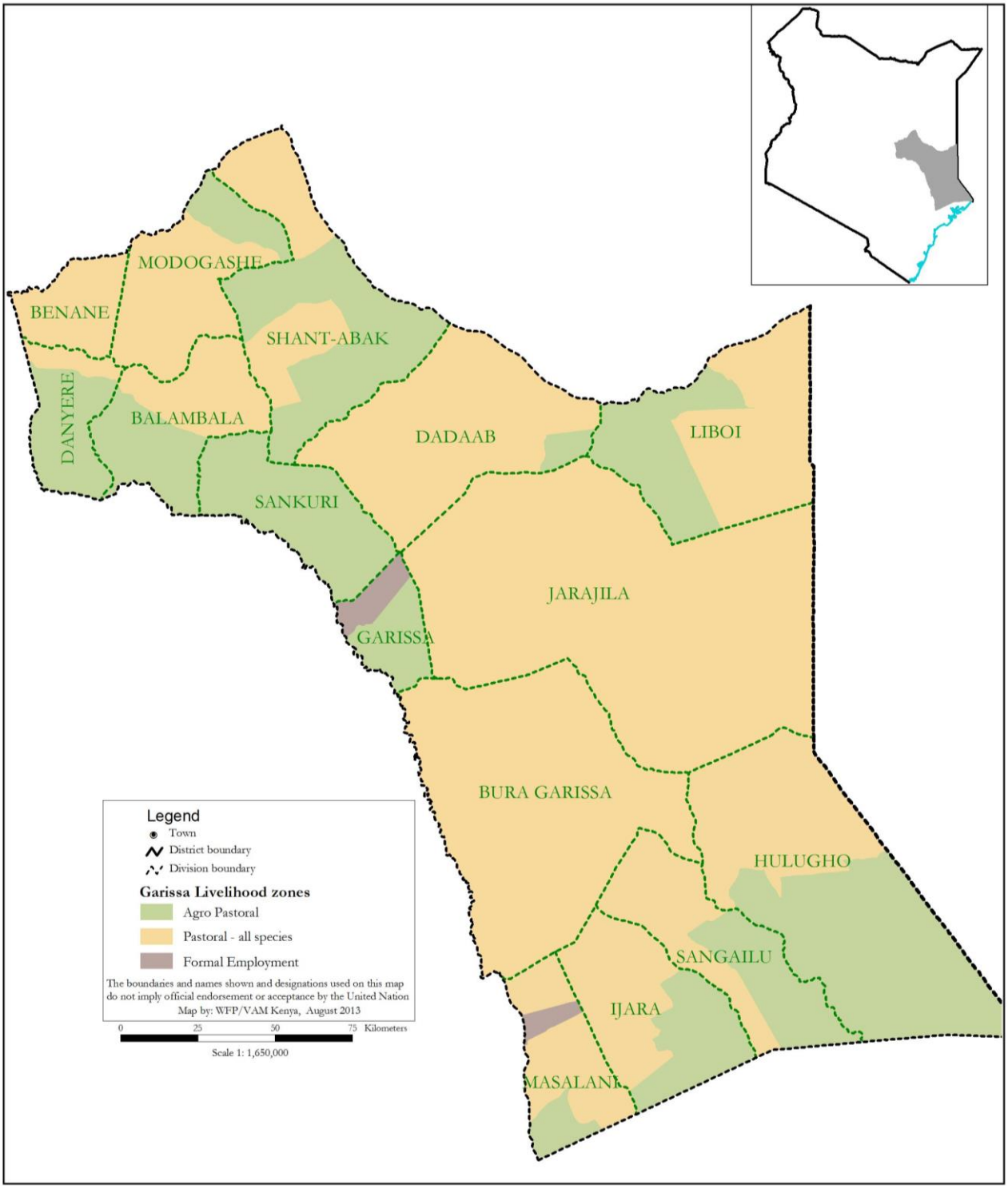
# GARISSA COUNTY
# 2018 SHORT RAINS FOOD SECURITY ASSESSMENT REPORT




**A joint Report by the Kenya Food Security Steering Group (KFSSG)[1] and Garissa County Steering Group**

**February 2019**

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## EXECUTIVE SUMMARY

Food security assessment is a bi-annual assessment conducted by a multi-agency and multi sector representatives from the Kenya Food Security Steering Group (KFSSG); the County Steering Group (CSG) drawn from all the key government sectors and various non-state actors. The 2019 short rains food security assessment which covered all the 23 Arid and Semi-Arid Counties (ASAL) counties of Kenya was conducted from 11th to 22nd February 2019. In Garissa county, the assessment covered three main livelihood zones namely: Pastoral all species, agro-pastoral and formal employment livelihood zones. The overall aim was to develop an objective, evidence-based and transparent food security situation analysis following the performance of short rains season of 2018, considering the cumulative effects of previous seasons, and to provide recommendations for possible response options based on the situation analysis.

The onset of the long rains was late by 1-2 dekads in the central and southern parts and 3-4 dekads in the north-western part of Garissa. The cumulative amount of rains received during the season amounted to 83.81 mm which was 40 percent of the long-term average. Spatial distribution was uneven though distribution in time was good. The rains ceased timely in the third dekad of December resulting in a shortened season.

Both the area under cultivation and production for all the crops grown under rain-fed agriculture decreased as compared with LTA and this is attributed to the below average rains received during the short rains season, lack of dealers of farm inputs and use of previous season's seeds that result in low crop productivity. In contrast, for irrigated crop production both the area planted and production for the three major crops increased significantly as compared with the LTA due to adequate water along the riverine areas, collaboration among partners, use of hybrid varieties and demand for high value horticultural crops. Total stocks of maize in the county were below average as the short rains performed poorly affecting maize production. The current household maize stocks stand at 69 percent of the long-term average while traders hold seven percent above their long-term averages. Following the good performance of the 2018 March to May long rains season, livestock production experienced a significant boost and continued to experience these positive impacts until the October to December short rains. However, subsequent deterioration of rangeland resources like forage and water impacted on livestock productivity driving atypically early migration to dry-season grazing areas. Livestock body condition generally is fair to good for all species across all livelihood zones which has resulted to a decline in livestock prices. Return trekking distances have increased thereby decreasing the frequency of watering. Milk production ranges between 2 – 3 litres per household per day across the county which is below the normal range of 4 – 5 litres per household per day. Market operations were normal as no disruption was reported. Livestock prices were below the long-term average while cereal and other food commodity prices were above the long-term averages thereby worsening the terms of trade to 39 kilogrammes of maize against the long-term average of 45 kilogrammes.

There was a deterioration in the food consumption score with 66 percent of households having acceptable food consumption score, 19 percent having borderline and 15 percent having poor food consumption score. Across the livelihood zones, variation in food consumption score were noted with the formal employment livelihood zone having 100 percent acceptable food consumption score while only 64 percent having acceptable food consumption score in the agro-pastoral livelihood zone and only 3.7 percent in the pastoral zone. The general trend in the proportion of children at risk of malnutrition has been on the increase. The proportion of children at risk of malnutrition for January 2019 was reported at 14 percent. The county is thus classified as Stressed (IPC Phase 2) across all livelihood zones.

# 1. INTRODUCTION

## 1.1. County Background

Garissa County is located in the North Eastern part of the Country and borders Wajir County to the north, Isiolo County to the North western, Tana River County to the West, Lamu County to the south and Somalia to the East. The County covers an approximate area of 45,702 square kilometres ($Km^2$) with an estimated population of 623,060 persons (Kenya National Bureau of Statistics, 2016 Projected Population).

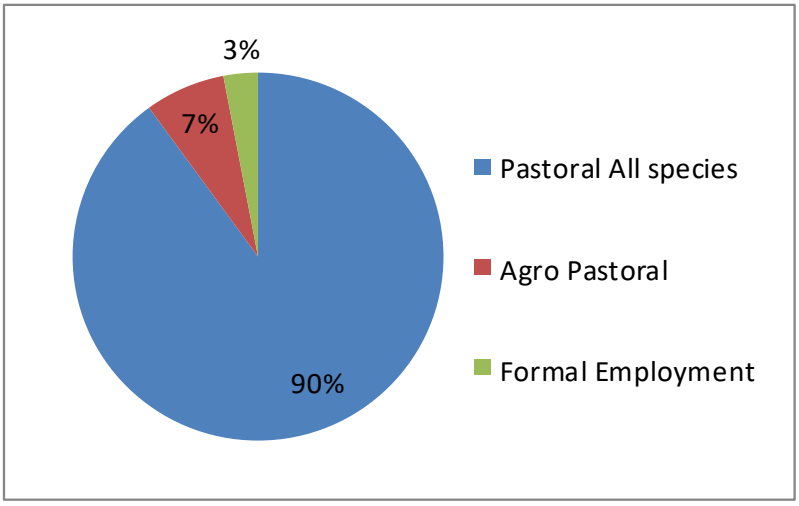


**Figure 1: Proportion of the Population by Livelihood Zones**

Administratively, the county is divided into six (6) sub Counties namely: Fafi; Lagdera; Garissa Township; Ijaara; Dadaab; and Balambala. The County has three main livelihoods zones namely, Pastoral all species; Agro-pastoral and Formal employment with population proportions of 90, seven and three percents respectively as shown in Figure 1. Main sources of income in the pastoral all species are Livestock production contributing 72 percent of cash income; firewood collection/charcoal burning at 15 percent; while food crop production only accounts for five percent of cash income. In the Agro-pastoral livelihood zone, food crop production is the major source of income accounting for 50 percent followed by Livestock production at 15 percent and remittances at five percent.

## 1.2. Objectives

The overall objective of the Short Rains Food Security Assessment (SRA) was to develop an objective, evidence-based and transparent food security situation analysis following the performance of short rains season of 2018, taking into account the cumulative effect of previous seasons, and to provide recommendations for possible response options based on the situation analysis. Specifically, the assessment was aimed:

- To ascertain at the livelihood level the quality and quantity of the 2018 October to December short rains and assess their impact on all key sectors including crop; livestock; water and sanitation; health and nutrition; and education.
- To establish the impacts of other compounding factors on household food security, such as livestock diseases, livestock mortality, crop failures and market food prices.
- To establish required non-food intervention, with emphasis on programmes that promote preparedness and build household resilience.

To assess potential food needs, including options for appropriate transfer modalities including food for assets, cash and vouchers, safety nets and general food distribution.

**Methodology and Approach**

The 2019 SRA assessment which was a multi-agency and multi sectoral approach consisted of representatives from the Kenya Food Security Steering Group (KFSSG); the County Steering Group (CSG) and various non-state actors. The process involved an in-depth data collection and analysis of primary data including Key Informant Interviews (KII), Focussed Group Discussions (FGDs), community interviews, market surveys, and checklists administration. During the transect drives, visual inspection techniques were also employed, and observations noted. Secondary information was analysed from the SMART surveys, National Drought Management Authority (NDMA) drought monthly bulletins, and Food Security Outcome Monitoring (FSOM) data. Data collected was analysed at the sub-county and livelihood zone levels and sectoral county reports prepared. Further analysis was done using the Integrated Food Security Phase Classification (IPC) reference tool. The assessment was conducted from 11th to 22nd February 2019 covering all the 23 Arid and Semi-arid (ASAL) counties of Kenya. The process began with the initial CSG briefing of the aims and objectives of the assessment followed by sector presentations and later a review of the sector checklists. The technical teams then proceeded to the field for a fact-finding mission with the aim of triangulating the information in the checklists with the actual situation on the ground. The team later compiled and drafted county report whose preliminary findings were presented to the CSG for adoption and ownership as the true reflection of the county food security status.

## 2. DRIVERS OF FOOD AND NUTRITION SECURITY IN THE COUNTY

### 2.1. Rainfall Performance

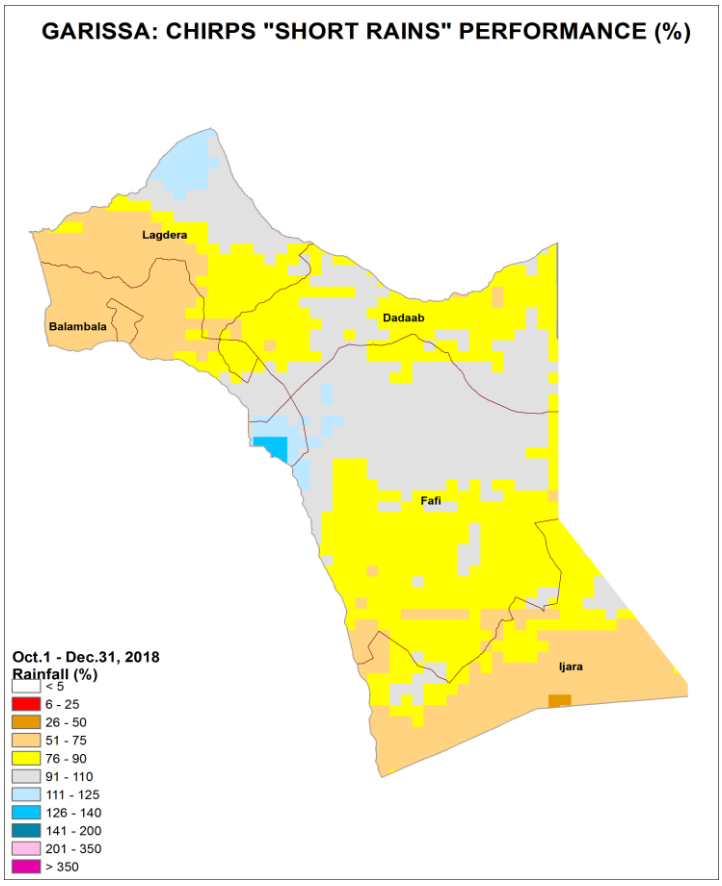


**Figure 2: Rainfall distribution as a percent of normal**

The rainfall in Garissa County experienced a late onset by 1 – 2 dekads in the central and southern parts while the north-western parts of Garissa experienced an even later onset of 3 – 4 dekads late. The cumulative amount of rains received during the season amounted to 83.81 mm which was 40 percent of the long-term average however this was distributed in varied amounts across the County. The western and southern parts of the County received 51 – 75 percent of the normal rains and parts of eastern and western Dadaab, southern Fafi and eastern Lagdera received 76 – 90 percent of normal rainfall. Normal rainfall of 91 – 100 percent of the average was received in northern Fafi, central Dadaab and northern Lagdera while above average rains of upwards of 111 percent of normal was observed in localized parts of Fafi and Lagdera as shown in figure 2. The rains were distributed poorly in space but

apart from the late onset, were well distributed temporally. The rainfall cessation was timely in the third dekad of December resulting in a shortened season across the county

### 2.2. Insecurity/Conflict

There were cases of insecurity due to threat of terrorism reported in parts of Hulugho, Dadaab and Fafi sub-counties occasioned by armed militias. Most terrorism activities were recorded in Ijara which has the Boni Forest that is known to provide a hideout for the group. A concern has been the existence of al Shabaab recruitment networks. There was also reported incident of terror attack at Chinese construction site in Shimbirey, Balambala sub-county. The police however, repelled the imminent attack. However, there are initiatives such as the Counter Violence Extremism (CVE) going on in the county. The threat of abduction is existent in rural parts of the county. Worth mentioning is the abduction of a passenger in Liboi and the shooting of a humanitarian vehicle in Ruqa. No ethnically motivated clashes were recorded during this period. However, there were cases witnessed in Dadaab sub-county close to the border with Isolo County. Other resource based, and inter-clan conflicts were also reported in parts of Lagdera that have limited access to available resources. Competition for resources and cattle raids and have triggered retaliatory attacks between the Somali and Borana communities in the two counties.

## IMPACTS OF DRIVERS ON FOOD AND NUTRITION SECURITY

### 3.1. Availability

Garissa County is more dependent on the October – December short rains and this is when a bulk of their rain-fed crop production take place. Food availability is within the long-term average and this is as a result of increased rice and sorghum stocks and above average irrigated crop production.

#### 3.1.1. Crop Production

The major crops grown in the Agro-pastoral livelihood zone in the order of importance are maize, cowpeas, green grams and sorghum. These crops are importance sources of income as well as food at the house hold level where 30 percent of the maize produced is for consumption while 70 percent is sold mainly as green maize as it fetches better prices while about 45 percent of green grams and cowpeas produced are mainly for sale at the local markets. Rice is major contributor to food in the agro-pastoral and pastoral livelihood zones contributing 35 and 80 percents to food in the respective zones. Food crop production contributes to 50 percent of cash income in the agro-pastoral livelihood zone; five percent both in the formal and pastoral livelihood zones.

**Table 1: Rain-fed crop production**

| Crop | Area planted during 2018 short rains season (Ha) | Long Term Average area planted during the short rains season (Ha) | 2018 short rains season production (90 kg bags) Projected/Actual | Long Term Average production during the short rains season (90 kg bags) |
|---|---|---|---|---|
| Maize | 105 | 125 | 710 | 1070 |
| Green Grams | 42 | 60 | 280 | 310 |
| Cow peas | 32 | 44 | 200 | 254 |
| Sorghum | 24 | 28 | 95 | 118 |

Both the area under cultivation and production for all the crops decreased as compared with LTA (Table 1) and this is attributed to the below average rains received during the short rains

season. Most of the farmers in the rainfed farming areas in Balambala sub-county did not plant any crop because they perceived the rains to be too low to support crop production. The *laggas* which support most of the rainfed crop production did not get enough water and this adversely affected the area planted. Emerging pests like the fall armyworm and crickets affected maize. Another factor is the absence of established dealers of farm inputs at the sub county level has resulted in the unavailability of certified seeds causing farmers to use the previous season's production as seeds leading to low crop productivity. There was little support with certified seeds of maize, green grams and cowpeas which was distributed mostly for demonstration purposes and was not enough to benefit all farmers in need of the seed.

Weak marketing linkages where the brokers have high control of the market coupled with poor infrastructure is another deterrent to crop production as producers do not have proper avenues to sell their produce especially those that live outside the main Garissa town that encounter constraints to do with transport that is costly and constrained during the rainy season when the rains make the roads impassable. A deterrent in terms of crop production is the high competition for pastures between wildlife and livestock which the farmers are caught in between and have to consistently guard their crop which results in unbearable costs in terms of losses in both the Agro-pastoral and Pastoral Livelihoods. The area and production for Agro pastoral Livelihood for maize and green grams decreased due to farmers venturing into the alternative livelihood of pastoralism.

**Table 2: Irrigated crop production**

| Crop | Area planted during 2018 short rains season (Ha) | Long Term Average area planted during the short rains season (Ha) | 2018 short rains season production (90 kg bags) Projected/Actual | Long Term Average production during the short rains season (90 kg bags) |
|---|---|---|---|---|
| 1.Bananas | 880 | 720 | 10160 | 8840 |
| 2.Mangoes | 605 | 570 | 79800 | 6630 |
| 3.Watermelons | 252 | 234 | 4960 | 4438 |
| 4.Tomatoes | 135 | 125 | 705 | 690 |
| 5 Rice | 45 | 60 | 56 | 75 |

The main crops under irrigated agriculture were Bananas, mangoes, watermelons, tomatoes and rice. In contrast, for irrigated crop production both the area planted and production for the three major crops increased significantly as compared with the LTA (Table 2). This is attributed to the fact that the crops were planned in the riverine areas where water for irrigation was adequate, support from the county government in the wake of the flooding that occurred during the March to May 2018 long rains that resulted in destruction of irrigation infrastructure where households and farming groups were provided with pump sets driving an increase in more land being opened up for irrigation and support from stakeholders with agrochemicals and spray equipment.

An increase in acreage and production was driven by collaboration among various stakeholders in conducting capacity building on crop diversification. Households also adapted the use of hybrid varieties especially for horticultural crops to sustain an increase in demand for high value horticultural crops in the County. There were pests like spider mites that affected tomatoes, mealy bugs that affected citrus fruits, fruit flies and mango weevils that affected mangoes and diseases like powdery mildew that affected tomatoes. However, these did not have a significant impact on the irrigated crop production

### 3.1.2. Cereals Stock

Total stocks of maize in the county were below average as the short rains performed poorly affecting maize production. The stocks held at household level for maize are below average due to low production and are projected to last 3 – 4 weeks to early March. Lack of storage facilities and preference of rice over maize discourages farmers from storing the produce and households normally sell the maize especially the green maize which fetches better prices to buy rice which is their more preferred staple food commodity.

**Table 3: Commodity Stocks in the County**

| Commodity | Maize | | Rice | | Sorghum | |
|---|---|---|---|---|---|---|
| | Current | LTA | Current | LTA | Current | LTA |
| Farmers | 520 | 750 | 600 | 550 | 120 | 105 |
| Traders | 1500 | 1400 | 17200 | 15200 | 175 | 155 |
| Millers | 490 | 500 | 0 | 0 | 0 | 0 |
| NCPB | 5000 | 9100 | 0 | 0 | 0 | 0 |
| Total | **8,810** | **11,750** | **18,250** | **15,750** | **295** | **260** |

Food aid stocks are 1300 bags of maize and 450 bags or rice held in Dadaab in the Kenya Red Cross storage facility. The traders have lower stocks for maize than LTA (Table 3) which is attributed to lack of cheap supply after reduced supplies to Dadaab Refugee Camp where they used to purchase their stock cheaply and lower production from the farms which has reduced the availability of the commodity. The traders now prefer stocking more of rice and legumes which have a higher demand and fetch better prices and therefore have stocked/prepositioned the commodity in their stores. Rice stocks held by farmers are 16 percent above average due to increased production as a result of support to farmers in Jarajara of certified rice seeds. Sorghum stocks are also 13 percent above average due to the sorghum intensification programme which provided seed to farmers.

### 3.1.3. Livestock Production

The main livestock species in the county include; goats, sheep, cattle, and camels. Livestock production contributes 72 percent to cash income in the pastoral livelihood zones, 15 percent in the agro-pastoral. Livestock production experienced a significant boost during the 2018 March to May long rains season and continued to experience these positive impacts until the October to December short rains which were below average and resulted in short lived improvements but subsequent deterioration of rangeland resources like forage and water which in turn impacted on livestock productivity driving atypically early migration to dry-season grazing areas.

**Pasture and Browse Condition**

The forage condition is poor across all livelihood zones as shown in table 4 below.

**Table 4: Pasture and Browse Condition**

| Livelihood zone | Pasture | | | | | Browse | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Condition | | How long to last (Months) | | Factors Limiting access | Condition | | How long to last (Months) | | Factors Limiting access |
| | Current | Normal | Current | Normal | | Current | Normal | Current | Normal | |
| Pastoral | Poor | Good | 1 | 2 | None | Poor | Good | 1 | 3 | None |
| Agro-pastoral | Poor | Good | 1 | 2 | None | Poor | Good | 1 | 3 | None |

## Livestock Productivity

### Livestock Body Condition

Livestock body condition generally is fair to good for all species across all livelihood zones. This has been maintained by the forage conditions driven by the 2018 March to May long rains even though the short rains performed poorly. The livestock body conditions are likely to be maintained for the next one month through mid-March when they will likely decline to fair body conditions. This decline will result in a reduction in livestock market prices and milk production resulting in reduced household income and milk consumption respectively. Table 5 below summarizes and compares to normal the body condition of various livestock species in the county.

**Table 5: Livestock Body Condition**

| Livelihood zone | Cattle | | Sheep | | Goat | | Camel | |
|---|---|---|---|---|---|---|---|---|
| | Current | Normal | Current | Normal | Current | Normal | Current | Normal |
| Pastoral | Fair to good | Good | Fair to good | Good | Fair to good | Good | Good | Good |
| Agro-pastoral | Fair to good | Good | Fair to good | Good | Fair to good | Good | Good | Good |

### Water Availability and Access

The main water sources for livestock are rivers (River Tana) and boreholes, surface water sources like water pans and dams have dried up and this coupled with deteriorating forage necessitated the ongoing abnormal livestock migration. The remaining water sources mainly River Tana and the boreholes are expected to last for more than two months until the March to May long rains season though boreholes will likely experience breakdowns as the water yield reduces while number of users both human and animal increase.

**Table 6: Water for Livestock**

| Livelihood zone | Return trekking distances (Kms) | | Expected duration to last (Months) | | Watering frequency | |
|---|---|---|---|---|---|---|
| | Current | Normal | Current | Normal | Current | Normal |
| **Pastoral** | 15 - 20 | 10 - 15 | 2 | 2 | 2-3 | 1-2 |
| **Agro pastoral** | 8-9 | 0 - 5 | 2 | 2 | 2-3 | 1-2 |

The watering frequency for livestock has decreased because of the increased trekking distances across the County due to lack of forage and water with the frequency for cattle, sheep and goats reducing from every 1 – 2 days to 2 – 3 days and camels every 4 – 5 days compared to the normal three days as shown in table 6 below. The increased trekking distances and reduced watering frequency are continuously impacting on the livestock body conditions and productivity which are declining. Milk and meat production and consumption

is reducing as livestock body condition deteriorates and consequently livestock prices are dropping reducing terms of trade and household food access.

**Birth Rates**

Owing to a good long rains season in 2018, the breeding cycle improved to normal and with it, birth rates improved from below normal previously to normal levels. This persisted through 2018 and the livestock breeding cycles have been maintained. During the October to November short rains season breeding took place due to relatively good forage and water conditions but slightly below average and the animals in calf are expected to carry to term during the 2019 March to May long rains that is projected to be average.

**Milk Production, Consumption and Price**

Milk production ranges between 2 – 3 litres per household per day across the county which is below the normal range of 4 – 5 litres per household per day as shown in table 7. The available milk is being produced by cattle and camel. Milk availability has reduced at household level and this puts an increasing strain on household consumption because a portion of the milk is sold to cater for other food and non-food items such as purchase of water for domestic use, maize flour (posho) among other items. The reducing milk consumption can be seen to impact malnutrition levels as it mirrors the increase in the proportion of children under five years old at risk of malnutrition.

**Table 7: Milk Production, Consumption and Pricing**

| Livelihood zone | Milk Production per HH (ltrs) | | Milk consumption per HH (ltrs) | | Prices (Ksh)/Litre | |
|---|---|---|---|---|---|---|
| | Current | LTA | Current | LTA | Current | LTA |
| Pastoral | 2-3 | 5 | 0.75 | 2 | 60 | 60 |
| Agro-pastoral | 2-3 | 4 | 0.75 | 2 | 60 | 60 |

**Average Number of Livestock (Tropical Livestock Units -TLUs)**

**Table 8: Tropical Livestock Units**

| **Livelihood zone** | **Poor income households** | | **Medium income households** | |
|---|---|---|---|---|
| | Current | Normal | Current | Normal |
| Pastoral | 3-4 | 6-8 | 5 - 10 | 8-10 |
| Agro-pastoral | 2-2.5 | 7 | 5 - 10 | 8 -10 |

The tropical livestock units (TLUs)across the poor and middle-income household groups show that the livestock numbers remain below the long-term averages (Table 8) and this is mainly due to regular occurrences of drought that normally disrupt breeding cycles. Other major factors contributing to the below average TLUs are the consistent sale of livestock for income mainly to facilitate the purchase of food and non-food items, predation by wild animals and livestock diseases.

**Livestock Migration**

Abnormal migration occurred mainly out-migration to neighbouring counties by mid-January which normally does not occur during the short dry period of January and February following the October to December short rains which is the main season in the County. Migration was especially high in Dadaab, Balambala and Lagdera sub-counties with less occurring in Ijara and minimal occurring in Fafi. In Lagdera, Dadaab and Balambala 40 percent of sheep, goats

and camel and 50 percent of cattle migrated in search of forage and water. Table 9 below summarizes the migration routes in the county.

**Table 9: Migration Routes**

| Sub County | Normal/Abnormal | Migration routes |
|---|---|---|
| Dadaab | Abnormal | Migrated to Wajir, Boni Forest (Lamu), Meru National Park (Meru), Isiolo |
| Lagdera | Abnormal | Migrated to Wajir, Meru National Park (Meru), Isiolo, Tana River (Boko), past Fafi to Boni Forest (Lamu) were cattle mostly |
| Balambala | Abnormal | Moved to Boko (Tana River), Danyere (Balambala sub-county) |
| Ijara | Abnormal | Tana Delta (Tana River), Boni Forest, Witu (Lamu) |

**Livestock Diseases and Mortalities**

Across the sub-counties, incidences of Contagious bovine pleuropneumonia (CBPP), Contagious Caprine pleuropneumonia (CCPP) were reported in all sub-counties with Ijara and Lagdera sub-counties in addition also reported incidences of lumpy skin disease (LSD) sheep and goat pox (SGP) whereas in Balambala, incidences of Peste des petits ruminants (PPR) were reported. Livestock disease occurrences were average with different occurrences among the different species. Goats were mostly affected by CCPP, worms, internal and external parasites, sheep were mostly affected by worms, internal and external parasites, for both cattle and camels, no disease outbreaks were reported but were affected by internal and external parasites. Treatments and varied measures of diseases control such as vaccinations and spraying were carried out simultaneously against the above reported diseases. Livestock mortalities are below average due to improved drought interventions and improved rearing ability and are less than one percent in cattle and camels, less than two percent for sheep and goats attributed mainly to predators and livestock diseases like CCPP and PPR.

**Impact on availability**

Food availability is below average evidenced by below average as the below average short rains resulted in below average rain-fed crop production. Forage and water resources are atypically below average and livestock productivity is declining resulting in below average milk production. Irrigated crops production however is expected to be above average due to interventions in terms of replacement pump sets, provision of hybrid seeds after they were destroyed during flooding that occurred along the river during the March – May long rains.

## 3.2. Access

### 3.2.1. Markets Operations

Garissa township market is the main markets for staple food and is functioning well with normal volumes of food commodities. Other minor markets include Balambala, Modogashe, Ijara, Fafi and Bura markets. The main livestock markets within the County are Garissa Town, Dagahaley (Dadaab sub-county), Hagadera (Fafi sub-county), Balambala (Balambala sub-county), Modogashe (Lagdera sub-county) and Masalani (Ijara Sub County). Outside the county target markets are Garba Tula in Isiolo County, Garsen in Tana River County. Majority of the pastoral households within the county are market dependent for food commodities supplementing with livestock products. The food types consumed by proportion

of population are shown in Table 10 below. Market operations were normal as no disruption was reported.

**Table 10: Food consumed by proportion of population**

| | Food Variety Consumed | Proportion of Population Consuming the Commodity |
|---|---|---|
| 1 | Rice | 100% |
| 2 | Maize flour | 80% |
| 3 | Beans | 60% |
| 4 | Spaghetti | 50% |
| 5 | Milk | 70% |
| 6 | Meat | 40% |

### 3.2.2. Market Supplies and Traded Volumes

The local market is mostly supplied by outside markets which are available at higher prices due to marketing costs such as transport, cess and handling. Across the livelihood zones, especially far from the main Garissa market, there is high demand for maize flour (posho) due to ease of preparation, and stability of price hence its preference to maize grain. Taking into consideration sifted maize flour as a major staple food, it's stability at average levels continues to ensure average food access at household level. There was high supply of livestock to markets as households sought to obtain school fees for school-going children at the beginning of the year.

### 3.2.3. Market Prices

**Maize Price**

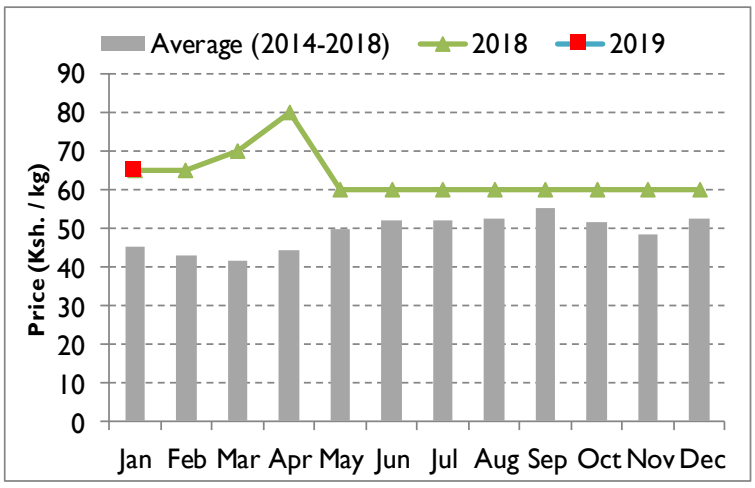


**Figure 3: Average Maize Price per kilo in the County**

The average maize price in Garissa was Ksh. 65 for a kilogram of maize which was 13 percent above the average price of Ksh 58 as shown in figure 3. The price increased from Ksh 60 in December. The price increase was because of reduced maize supply in the markets as the October – December short rains performed poorly, and maize crop production locally is also below average. The prices are expected to follow seasonal trends ad remain at elevated levels for the rest of the year considering that the long rains season is not the main production season in the county. According to the NDMA sentinel site data, the average price across the County for sifted maize flour was Ksh 100 per kilogram which is within the three-year average of Ksh 96. The prices varied across different markets and different livelihood zones mostly ranging between Ksh 70 – 100 per kilogram, with an exception of Guyo market in the Agro-pastoral zone of Fafi sub-county where the price was Ksh 120 compared to the normal price of Ksh 80.

**Goat Prices**

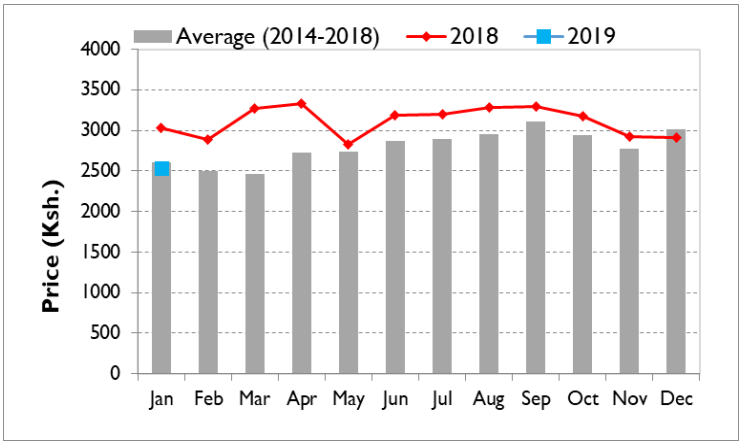


**Figure 4: Average Goat Prices in the County**

Livestock volumes available are reduced in across all sub-counties except Fafi sub-county due to out-migration of about 40 – 50 percent of livestock in search of forage and water.

The average goat price across the county was Ksh 2,536 for a medium size goat which is within the five-year average levels (figure 4). The current price is a drop of 13 percent from December driven by deteriorating livestock body conditions and increased supply in the markets. The deterioration in forage and water is driving declines in livestock body condition as they trek long distances leading to lower prices across the livelihood zones. Prices range between Ksh 2,800 – 3,000 compared to an average of Ksh 5,000 in the agropastoral zones of Balambala sub-county and Ksh 1,500-1800 compared to Ksh 3,000 in the agropastoral zones of Fafi sub-county, while in the pastoral zones goat prices were 1,200 compared to Ksh 2,500 in the pastoral zones in Lagdera. The livestock prices are set to remain stable for the next month as the forage conditions are set to last until mid-March. Thereafter, prices are set to increase from late March as the effects of the projected average March to May long rains start to be felt.

### 3.2.4. Terms of Trade

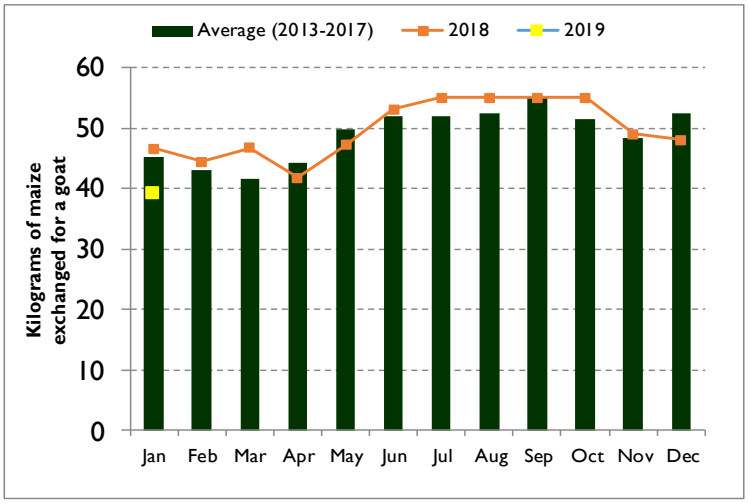


**Figure 5: Comparative Terms of Trade in the County**

The terms of trade in terms of the sale of a goat in exchange for purchase of kilograms of maize in January was 39 kilograms for the sale of a goat as shown in figure 5. This is 14 percent below the five year averages and implies below average food access at household level this is as a result of the above average maize prices and within average goat prices. The Terms of Trade (ToT) are expected to improve from late March as goat prices improve driven by the average rains. The terms of trade are lower in the pastoral zones but a bit higher in the agropastoral zones.

### 3.2.5. Income Sources

Livestock production is the main source of cash income in the pastoral livelihood zones contributing 72 percent followed by charcoal burning/firewood fetching at 15 percent. In the agro-pastoral livelihood zone, food crop production is the leading source of income at 50 percent followed by livestock production at 15 percent. Small business, formal/casual waged labour and petty trade are listed as the main source of cash income in the formal employment livelihood zone as shown in table 11 below.

**Table 11: Main Sources of Cash Income**

| Sources of Income | Contribution to Cash Income per Livelihood Zone (%) | | |
|---|---|---|---|
| | **Pastoral-all species** | **Agro-pastoral** | **Formal Employment** |
| Livestock Production | 72 | 15 | 1 |
| Food Crop Production | 5 | 50 | 5 |
| Charcoal Burning | 15 | 5 | 10 |
| Small Business | - | 5 | 25 |
| Casual Waged Labour | - | 5 | 17 |
| Formal Waged Labour | - | 1 | 22 |
| Petty Trading | 5 | 5 | 15 |

### 3.2.6. Water Access and Availability (Including Cost and Consumption)

**Major Water Sources**

Major sources of water for domestic use and livestock in the county are boreholes, water pans, and the Tana River. At this time of the year the county normally depends on 330 water points (154 boreholes, 149 water pans and 27 river fed water supplies) out of which only 250 water points are currently holding water (139 boreholes, 20 water pans and 25 river fed water supplies) which is about 76 percent of the fairly normal. Operational water pans are projected to dry out in a month's time from the time of the assessment. Non-operational boreholes are mainly caused by frequent breakdown of generators and pump sets and lack of adequate maintenance as a result of over pumping.

**Distance to Water Sources**

The current return trekking distance to domestic water sources has increased in the pastoral livelihood zone up to seven kilometres compared to the normal of up to five kilometres. The trekking distances have however, remained the same in the agro-pastoral and formal employment livelihood zones between 0.5-5 kilometres. The increase is distance in the pastoral zones is occasioned by drying of water pans.

**Waiting time at the Source**

Waiting time at the water sources have increased across all livelihood zones which is occasioned by high concentration of both livestock and for domestic use. The current waiting time in the pastoral livelihood zone range between 30-60 minutes against the normal waiting time of between 10-20 minutes. In the agro-pastoral livelihood zone, the current waiting time ranges between 15-30 minutes against the normal of 15 minutes while in the formal employment zone, the current waiting time ranges between 15-25 minutes compared to 5-10 minutes normally.

**Cost of Water, Consumption**

There has not been any in the cost of water fin the pastoral and agro-pastoral livelihood zones which has remained at Ksh. 5 per 20 litre jerry can. However, in the formal employment livelihood zone, the cost of water has increased from Ksh. 10 normally to the current cost of Ksh, 20 per 20 litre jerry can. For livestock the cost of water is Ksh. 5 per cattle, Ksh. 1 per goat/sheep and Ksh.10 per camel.

The current water consumption varies across the livelihood. In the agro-pastoral livelihood zone consumption per person per day has remained constant at 30 litres. For the pastoral livelihood zone, consumption has declined ranging between 7-15 litres per person per day against the normal 15-20 litres while in the formal employment zone, current consumption ranges between 10-20 litres against the normal of 15-30 litres as shown in table 12 below. It

is projected that consumption across all livelihood zones may reduce further as more water sources dry up and trekking distances increase.

**Table 12: Distances to Water Sources, Cost and Consumption**

| Livelihood zone | Distance to water for domestic use (Kms) | | Cost of water at source (Ksh per 20 litres) | | Waiting time at water source (minutes) | | Average HH use (litres/person/day) | |
|---|---|---|---|---|---|---|---|---|
| | Current | Normal | Current | Normal | Current | Normal | Current | Normal |
| Pastoral | 0.5 - 7 | 0.5 - 5 | 5 | 5 | 30 - 60 | 10 - 20 | 7 - 15 | 15 - 20 |
| Agro-pastoral | 0.5 - 5 | 0.5 - 2 | 5 | 5 | 15 - 30 | 15 | 30 | 30 |
| Formal Employment | 0.5 - 2 | 0.5 - 2 | 20 | 10 | 15 - 25 | 5 - 10 | 10 - 20 | 15 - 30 |

### 3.2.7. Food Consumption

The proportions of households in poor food consumption score in the month was 15 percent indicating an increase of 3.4 percent compared with the previous month. The proportion of households in borderline and acceptable food consumption scores were 19 and 66 percents respectively. The implication being that significant proportion of households (66%) had consumed a staple and vegetables daily, complemented by pulses and oils at least four times a week, and occasionally meat and dairy products. Across the livelihood zones, variation in food consumption score were noted with the formal employment livelihood zone having 100 percent acceptable food consumption score while only 64 percent having acceptable food consumption score in the agro-pastoral livelihood zone as shown in figure 6 below.

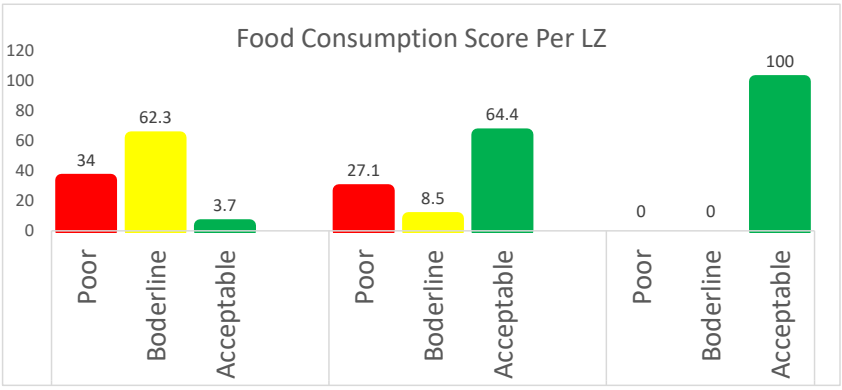


**Figure 6: Food Consumption Score per LZ**

### 3.2.8. Coping Strategy

The average coping strategy index as at January was 15.3 which was a 50 percent increase from 10.2 reported the previous month. In the agro-pastoral livelihood zone, the coping strategy index was reported at 20.8 while in the pastoral-all species the index was 3.0.

## 3.3. Utilization

### 3.3.1. Morbidity and Mortality Patterns

Most prevalent diseases among the U-5 and the general population in the county are Upper Respiratory Tract Infection (URTI), Diarrhoea and malaria as shown in tables 13 and 14. Upper Respiratory Tract Infection has remained as the leading cause of outpatient morbidity and is attributed to environmental conditions. Diarrheal cases are attributed to sources of

water and hygiene while malaria cases are mostly reported along the River Tana due to breeding and habitation of mosquitoes.

**Table 13: Morbidity Trends for the Under-Fives**

| Disease | | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| URTI | 2018 | 18548 | 9229 | 9825 | 9036 | 7522 | 6121 | 7523 | 7090 | 7560 | 8139 | 7019 | 6479 |
| | 2017 | 7643 | 7426 | 7745 | 6544 | 6357 | 3721 | 3013 | 2507 | 2711 | 3675 | 7067 | 6066 |
| | 2016 | | 16 | 4653 | 4649 | 5110 | 8422 | 5821 | 6684 | 6697 | 6917 | 6558 | 4943 |
| Diarrhoea | 2018 | 2356 | 2583 | 3944 | 3938 | 3678 | 2296 | 1867 | 1803 | 1734 | 1833 | 2147 | 2550 |
| | 2017 | 2988 | 1995 | 2265 | 2153 | 3307 | 2027 | 1722 | 1216 | 1121 | 1245 | 2729 | 2574 |
| | 2016 | 968 | 873 | 949 | 800 | 1567 | 1387 | 1070 | 1155 | 1021 | 1162 | 1015 | 973 |
| Malaria | 2018 | 251 | 278 | 199 | 224 | 247 | 241 | 168 | 195 | 224 | 158 | 64 | 389 |
| | 2017 | 268 | 159 | 120 | 189 | 220 | 244 | 238 | 230 | 104 | 201 | 198 | 125 |
| | 2016 | 1074 | 827 | 556 | 428 | 402 | 416 | 516 | 468 | 446 | 348 | 334 | 359 |

**Table 14: Morbidity Trends for the General Population**

| Disease | | **Jan** | **Feb** | **Mar** | **Apr** | **May** | **Jun** | **Jul** | **Aug** | **Sep** | **Oct** | **Nov** | **Dec** |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| URTI | 2018 | 10924 | 11205 | 10828 | 10743 | 9361 | 8203 | 9602 | 9905 | 9675 | 10173 | 8622 | 7328 |
| | 2017 | 9440 | 9233 | 9434 | 6938 | 7692 | 4132 | 3690 | 2875 | 3215 | 3112 | 9010 | 8492 |
| | 2016 | | 29 | 5404 | 4480 | 6277 | 7035 | 7555 | 8619 | 8232 | 8305 | 7979 | 6197 |
| Diarrhoea | 2018 | 1299 | 1560 | 1829 | 1916 | 1776 | 1318 | 1259 | 1048 | 1259 | 1234 | 1183 | 1326 |
| | 2017 | 1053 | 845 | 871 | 1022 | 1674 | 901 | 783 | 586 | 607 | 601 | 1280 | 1304 |
| | 2016 | 2222 | 1589 | 1698 | 1911 | 2795 | 2305 | 2380 | 2360 | 2093 | 2507 | 2922 | 2459 |
| Malaria | 2018 | 894 | 777 | 474 | 437 | 520 | 728 | 556 | 451 | 423 | 245 | 187 | 205 |
| | 2017 | 757 | 411 | 354 | 280 | 388 | 425 | 575 | 512 | 230 | 353 | 434 | 545 |
| | 2016 | 281 | 278 | 284 | 290 | 168 | 192 | 210 | 230 | 239 | 247 | 177 | 215 |

### 3.3.2. Immunization and Vitamin A supplementation

The proportion of children under one year who are fully immunized (FIC) in the county from July to December 2018 was 84.2 percent compared to 46.4 percent reported same time last year. Data from the DHIS indicates that Vitamin A supplementation coverage was 114 percent for children aged 6-11 and 74 percent for children aged 12-59 months for the period July to December 2018. This was a significant improvement compared to same period in 2017 when only 41 and 28 percent were reported for children aged 6-11 and 12-59 months respectively.

### 3.3.3. Nutrition Status and Dietary Diversity

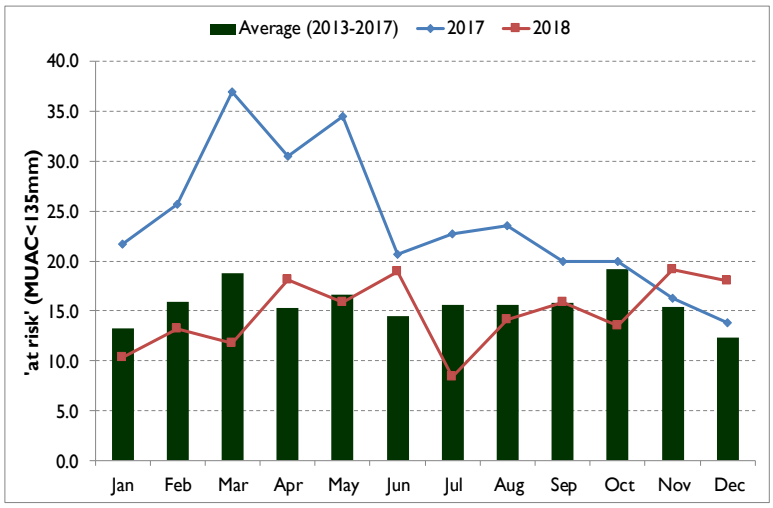


**Figure 7: Proportion of children with MUAC less than 135mm**

The proportion of children at risk of malnutrition for January 2019 was reported at 14 percent which shows a deterioration in nutritional status when compared to the long-term average of 13.4 percent as well as similar period 2017 when only 10.3 percent was reported. The general trend in the proportion of children at risk of malnutrition as measured by Mid-Upper Arm Circumference (MUAC) has been on the increase from the month of July 2018 when only 8.4 percent was recorded. However, from the month of November and December the trend shows a decline from 19.1 percent in November to the current of 14 percent recorded in January as shown in figure 7. According to a SMART survey carried out in the month of July 2018, 2.1 percent of the children were severely malnourished while the global acute malnutrition rates was reported at 13.7 percent.

Dietary diversity was reported between three to four food groups across all livelihood zones mainly starch, vegetables, dairy and dairy products, sugar and meat. Meal frequency both for children and adults was reported at 2-3 meals a day with very minimal variations across the livelihood zones. Minimum meal frequency for children 6-23 months was reported at 28.2 percent while the minimum dietary diversity for the same age was reported at 22.9 percent.

### 3.3.4. Sanitation and Hygiene

Increased awareness and training on the use of sanitary facilities has reduced the level of contamination of water sources. The main contaminant of water sources is open defecations attributed to low latrine coverage (12% as at July 2018) and runoff water collected at the water pans during the rain seasons. The caving-in of a few of the available latrines and sharing of water points by both livestock and human population also contribute to contamination of water sources. The open storage tanks were also reported as a major source of contamination as birds often fall into them and decay. Water treatment at the household level was low at 11.6 percent (SMART survey July 2018). 9.8 percent boil water, 6.1 percent use traditional herbs, 11.14 percent use pot filters and 4.6 percent wait water to settle. Low water treatment at household level has been linked to increased incidences of watery diarrhoea among the under-fives. Hand washing, only 49.2 percent of the households use soap and water. According to the SMART survey conducted in the month of July 2018, 61.4 percent of the households reported to have boiled water while 37.1 percent used chemicals and only 1.4 percent used pot filters

### 3.4. Trends of Key Food Security Indicators

Table 15 shows trends of food security indicators from the long rains assessment in July and short rains assessment in February

**Table 15: Food Security Trends in Marsabit County**

| Indicator | Long Rains Assessment, July 2018 | Short Rains Assessment, Feb 2019 |
|---|---|---|
| % of maize stocks held by households (agro-pastoral) | 50% | 69% |
| Livestock body condition | Good for all livestock species across all livelihood zones | Fair to Good for all livestock species across all livelihood zones |
| Water consumption (litres per person per day) | Pastoral: 30 litres<br>Agro-pastoral: 40 litres | Pastoral: 15-20/p/d<br>Agro-pastoral: 30/p/d |
| Price of maize (per kg) | 60 | 65 |
| Distance to grazing (km) | Agro-pastoral: 15 kilometres<br>Pastoral: 15 kilometres | Agro-pastoral: 17<br>Pastoral: 21 |
| Terms of trade (pastoral zone) | 53 kg | 39 kg |
| Coping strategy index | Mean 11.3 (FSOM May, 2018) | Mean: 15.3<br>Agro-pastoral 20.8<br>Pastoral 3.0 |
| Food consumption score | Poor: 6.2 %<br>Borderline: 7.7 %<br>Acceptable: 86.1 % | Poor: 15 %<br>Borderline: 19%<br>Acceptable: 66% |

## 4. CROSS CUTTING ISSUES

### 4.1. Education

**Access (Enrolment)**

Total enrolment in the county for pre-primary and primary stands at 65,708 (Girls 27,317 and Boys 38,391) in term one 2019 compared to 67,234 recorded in term three of 2018.

| Enrolment | Term III 2018 | | | Term I 2019 | | |
|---|---|---|---|---|---|---|
| | Boys | Girls | Total | Boys | Girls | Total |
| ECD | 7,841 | 6,055 | 13,896 | 7,439 | 5,717 | 13,156 |
| Primary | 31,378 | 21,960 | 53,338 | 30,952 | 21,600 | 52,552 |
| Secondary | 6,708 | 4,481 | 11,189 | - | - | - |

**Retention (Drop out)**

There was a drop out of 1,526 pupils from both ECD and Primary between term III 2018 and term I 2019. More boys than girls dropped out of school. Some of the reasons cited for the

dropout rates included: Family labour and H/household chores; perceived less value for school; Lack of food in the school; Migration and insecurity.

| Drop Out | End of Term II 2018 | | End of Term III 2018 | |
|---|---|---|---|---|
| | **No. of Boys** | **No. of Girls** | **No. of Boys** | **No. of Girls** |
| ECD | 980 | 560 | 402 | 338 |
| Primary | 880 | 670 | 426 | 360 |
| Secondary | - | - | - | - |

**School Meals Programme (SMP)**

Only two sub counties are under school meals programme (Garissa Township and Fafi) covering 17,881 pupils (10,011 boys and 7,870 girls) as shown in table 16. A total of 146 public primary schools with 35,501 pupils do not have school meals programme. The county government intends to pilot milk programme for two schools (Nanigi primary and Iftin primary). There is no ECDE centres in the county with any kind of school meals programme. Lack of water, delays in delivery of food were some of the reasons reported to be contributing to lack of food in the schools.

**Table 16: School Meals Programme**

| **Sub-County** | **RGSMP** | | | |
|---|---|---|---|---|
| | No. of Schools | Boys | Girls | Totals |
| Garissa Township | | 7,643 | 5,872 | **13,515** |
| Fafi | | 2,368 | 1,998 | **4,366** |
| | | | | |
| **Totals** | | **10,011** | **7,870** | **17,881** |

**Schools without School Meals Programme**

| **Name of Sub-County** | **No. of Schools** | **No. of Boys** | **No. of Girls** |
|---|---|---|---|
| Dadaab | 28 | 5,075 | 3,324 |
| Balambala | 42 | 6,068 | 3,334 |
| Lagdera | 25 | 3,919 | 2,869 |
| Hulugho | 24 | 3,047 | 2,151 |
| Ijara | 27 | 3,302 | 2,412 |

## 5. FOOD SECURITY PROGNOSIS

### 5.1 Assumptions.

The following assumptions have been made for Garissa county:

- The vegetation conditions especially pasture and browse are expected to hold stable at fair to good for at least one month until late-March and keep the body conditions at fair to good until late March when the long rains commence and improve the water situation and improve vegetation conditions from early April onwards restoring them to the average levels.

- With the current low local stocks and dependence on maize supplies from external markets like Meru, technical price projections indicate that maize prices are likely to

remain 6 – 8 percent above average ranging from KES 58 -67 per kilogram through the scenario period.

- Technical price projections indicate that goat prices are projected to follow seasonal trends and remain within the five-year average from February through September and range between KES 2,400 – 3,000 as the average rains improve and maintain livestock body conditions at average levels.

- Abnormal livestock migration in search of water and forage from the drier parts of Garissa to surrounding counties of Isiolo, Wajir, Lamu, Meru, Tana River and to neighbouring Somalia is likely to result in resource-based conflict incidents from February to early April in parts of Garissa (Lagdera and Dadaab). Insecurity is also expected to persist due to banditry and armed conflict along parts of Hulugho, Ijara, and Dadaab bordering Somalia, which may disrupt livelihood activities.

## 5.2 Food Security Outlook

### 5.2.1 Food Security Outlook for March to May 2019

The food security situation in the county is expected to deteriorate until the onset of long rains season after which it is expected to improve. Milk production is expected to continue to decline through mid-April resulting in a corresponding increase in malnutrition especially in children under five years of age. Above average staple food prices especially for maize and within average livestock prices are expected to constrain household purchasing power and food access through early April. Households will increasingly rely on both consumption and livelihood coping strategies to obtain minimum food needs. The average March to May long rains is expected to bring about improvements in forage and water and bring back livestock to wet season grazing areas close to the homestead where livestock body conditions will improve and improving meat and milk consumption at household level. Livestock prices are set to rise and improve household purchasing power and household food access and consumption from mid-April. There will be a reduction in coping strategies employed at household level. Increased milk production is set to improve the nutrition status in children and household food security is expected to improve with more households moving into Minimal (IPC Phase 1) with others improving but remaining within the Stressed (IPC Phase 2) phase.

### 5.2.1 Food Security Outlook for June to August 2019

From June, the effects of the average long rains season will continue holding the food security situation at stable levels. From July, the food security situation will begin to decline typically as forage and water resources decline resulting in deterioration of livestock body conditions reducing meat and milk production and consequently household food availability. Livestock prices are expected to decline but remain at average levels however with elevated staple food prices, household food access and consumption is expected to be below average necessitating application of consumption-based coping strategies such as eating less preferred food, skipping meals, borrowing food and livelihood based coping strategies such as use of savings and borrowing money. From August food insecurity is set to peak during the lean period with malnutrition levels increasing due to low milk and food consumption. Household food security will decrease with some households moving from Minimal (IPC Phase 1) to Stressed (IPC Phase 2) able to afford minimum food needs but not their non-food needs.

# 6. CONCLUSIONS AND INTERVENTIONS

## 6.1. Conclusion

### 6.1.1. Phase Classification

The food security phase classification for the county has remained in stressed (IPC Phase 2) since the last assessment carried out in February. Even though there is deterioration in food security indicators compared to the previous season, the phase classification has remained Stressed.

### 6.1.2. Summary of Findings

There has been and deterioration in food consumption scores; with majority of the population moving from acceptable to borderline and poor food consumption score compared to the previous season. The proportion of households with acceptable food consumption score is 66 percent. 19 percent of households have borderline food consumption score while 15 percent have poor food consumption scores. The mean reduced coping strategy index is 15.5 compared to 11.3 reported during the previous season. There was a significant variation in the coping strategy index across the livelihood zones with the agro-pastoral livelihood zone having an index of 20.8 and pastoral all species having an index of three. The proportion of children at risk of malnutrition for January 2019 was 14 percent compared to the long-term average of 13.4 percent and 10.3 percent same period in 2017.

### 6.1.3. Sub-County Ranking

**Table 17: Ranking of Sub-County in order of Food Insecurity Severity**

| Sub-County | Sub-County Ranking (1=Most food insecure, 4=Least food insecure) | Current main food security threats |
|---|---|---|
| Hulugho | 1 | Insecurity as a result of terror attacks<br>Poor water quality<br>Livestock diseases<br>Lack of markets which hinder accessibility to food commodities |
| Dadaab | 2 | Insecurity as a result of terror attacks<br>Poor forage condition<br>Long trekking distances to watering points |
| Lagdera | 3 | Water stressed<br>Resource based conflict<br>Clan conflict limiting access to available resources |
| Fafi | 4 | Insecurity<br>Water stressed |
| Balambala | 5 | |
| Ijara | 6 | |
| Garissa Township | 7 | |

## 6.2. Ongoing Interventions

### 5.2.1 Food Interventions

Currently 83,739 beneficiaries are under food assistance programme through Asset creation programme and Cash for Asset

### 5.2.2 Non-Food Interventions

| County | Intervention | Sub County | No. of beneficiaries | Implementers | Impacts in terms of food security | Cost | Time Frame |
|---|---|---|---|---|---|---|---|
| **AGRICULTURE** | | | | | | | |
| Garissa | Provision of Extension Services and capacity building on safe use of Agrochemicals and Good Agronomic practices | All | 4,500 | County Gvt/MOA Partners | Adoption of appropriate technologies | 2.5M | 2018/2019 |
| Garissa | Training of pump operators on pump management and operation | Garissa, Balambala Fafi | 300 | Dept of Agric and irrigation Partners | Improved water conveyance | 500,000 | 2018/2019 |
| Garissa | Procurement and distribution of Certified seeds and Agrochemicals | All | 4500 | Dept of Agric and Partners | Improve food Security | 5,000,000 | 2018/2019 |
| Garissa | Support with more solar powered pumpsets | Garissa, Balambala, Fafi | 4000 | Dept of Agric and irrigation Partners | Improve food Security | 30,000,000 | 2018/2019 |
| Garissa | Opening up more farm access roads | Garissa, Balambala, Fafi | 3500 | Dept of Agric,Roads | Improve access to Markets | 25 M | 2018/2019 |
| **LIVESTOCK** | | | | | | | |
| Garissa | Disease surveillance | All | All | Veterinary department, fao , RPLRP | Stable protected livelihoods: improved marketing | 12M | continuous |
| Garissa | Vaccinations | Balambala | 350 | KCSAP / NDMA/FAO | Increased milk and meat productivity | - | By June2019 |
| Garissa | Fodder | Balambala | - | KCSAP/ASDSP RPLRP | Increased milk and meat productivity | - | By Dec.2019 |
| Garissa | Stocking livestock feed relief | Balambala | - | DLP-National Govt. | Reduced livestock losses | - | July 2019 |
| Garissa | Disease surveillance | All | All | Veterinary department | Stable protected livelihoods: improved marketing | 2M | continuous |
| **WATER AND SANITATION** | | | | | | | |

| County | Intervention | Sub County | No. of beneficiaries | Implementers | Impacts in terms of food security | Cost | Time Frame |
|---|---|---|---|---|---|---|---|
| All Wards | -Repair of gen-set<br>-Repair and servicing of pumps and tanks<br>-Extension of pipeline | Township | 250,000-300,000 | GAWASCO | | 10M | 3 Months |
| All Wards | -Drilling of shallow wells<br>- Extension of pipeline | Township<br><br>Township | 250,000-300,000 | GAWASCO, CGG NWSB | | 100M | 1 Year |
| **HEALTH AND NUTRITION** | | | | | | | |
| All | Vitamin A Supplementation | All health facilities | | MOH | | 6,214,560 | |
| | Zinc Supplementation | All health facilities | | MOH | | 450,000 | |
| | Management of Acute Malnutrition (IMAM) | All health facilities | | MOH | | 41,208,719 | |
| | IYCN Interventions (EBF and Timely Intro of complementary Foods) | All health facilities | | MOH | | 3,834,600 | |
| | Iron Folate Supplementation among Pregnant Women | All health facilities | | MOH | | 330,000 | |
| | Deworming | All health facilities | | MOH | | 550,000 | |

### 6.3. Recommended Interventions

#### 6.3.1. Food Interventions

Following the assessment of the short rains on the impact on various sectors, the team recommended varied proportions of population in need of immediate food aid in the county as shown in Table 18 below.

**Table 18: Population in need of Food Assistance**

| S/No. | Sub-County | Population in need (% range min – max) | Proposed Mode of Intervention |
|---|---|---|---|

| | | | |
|---|---|---|---|
| 1 | Hulugho | 40 – 45 | CFA |
| 2. | Dadaab | 35 – 40 | CFA |
| 3. | Lagdera | 35 – 40 | CFA |
| 4. | Fafi | 30 – 35 | CFA |
| 5 | Balambala | 25 – 30 | CFA |
| 6 | Ijara | 25 – 30 | CFA |
| 7 | Garissa Township | 25 – 30 | |

### 6.3.2. Non-Food Interventions

| County | Intervention | Sub County | No. of beneficiaries | Proposed Implementers | Required Resources | Available Resources | Time Frame |
|---|---|---|---|---|---|---|---|
| **AGRICULTURE** | | | | | | | |
| Countywide | Procurement and distribution of assorted farm inputs (certified seeds, seedlings and agro-chemicals) | All wards | 5000 | Dept of Agric and Partners | 5M | 2M | 2018/2019 |
| Countywide | Support Extension Service delivery | All wards | 4,500 | Dept of Agric and Partners | 3M | 100,000 | 2018/2019 |
| **LIVESTOCK** | | | | | | | |
| Garissa | Commercial destocking | all | | National Drought Management Authority, County Government, Kenya Red Cross Society | 48 M | - | 2 Months |
| Garissa | Feed supplementation | all | | County Government | 334 Million KES | - | 3-4 Months |
| Garissa | Fodder production and conservation | Balambala | 600 HH | County Government & Partners | 30 M | - | BY JUNE 2019 |
| Garissa | Strategic Feed reserves | Balambala | 500 HH | County Government & Partners | 85 M | - | BY JUNE 2019 |
| Garissa | Vaccinations | Balambala | 2500 HH | County Government & Partners | 20 M | - | BY JUNE 2019 |
| Garissa | Value addition of products | Balambala | 50 HH | County Government & Partners | 10 M | - | BY JUNE 2019 |

| County | Intervention | Sub County | No. of beneficiaries | Proposed Implementers | Required Resources | Available Resources | Time Frame |
|---|---|---|---|---|---|---|---|
| Garissa | Livestock insurance | Balambala | 2500 HH | County Government & Partners | 125 M | - | BY JUNE 2019 |
| Garissa | Range resource management | Balambala | 5000 HH | County Government & Partners | 15 M | - | BY JUNE 2019 |
| **WATER AND SANITATION** | | | | | | | |
| All Wards | Drilling of shallow wells | T/ship | 250,000-300,000 | NWSB,CCG | 100m | - | 1 year |
| | Extension of pipeline | T/ship | 250,000-300,000 | NWSB,CCG | - | - | 1 year |
| | Construction of storage facilities | Iftin Galbet | 50,000-100,000 | Care,CCG | 30m | | |
| | Installation Of hybrid system to boreholes | Iftin Galbet | 50,000-100,000 | Care,CCG | 20m | | |
| | Mapping of all reticulation system | All wards | 300,000 | Care,CCG | 30m | | 3month |