



**National Drought Management Authority  
ISIOLO COUNTY  
DROUGHT EARLY WARNING BULLETIN FOR NOVEMBER 2020**

**NOVEMBER 2020 EW Phase**

**Drought Status: NORMAL**



**Shughull za kawaida**

**Drought Situation & EW Phase Classification**

**Biophysical Indicators**

- The month of November was characterized by sunny and hot weather with few rainy days in the beginning and mid-month.
- The county Vegetation Condition declined to normal vegetation greenness.
- Majority of accessible forage was fair, with little regeneration taking place as shortage in traditional grazing areas looms.
- Water availability was fair due to low recharge level which may last not more than two months in open sources.

**Socio Economic Indicators (Impact Indicators)**

**Production Indicators**

- Body condition of camel, small stock and cattle was good to fair in all livelihood zones. However, majority are deteriorating.
- Household milk production declined marginally in the pastoral and agro-pastoral livelihood zones.

**Access Indicators**

- Livestock prices stabilized in all markets as demand firms up to the festive season. Food commodities prices stabilized.
- Household milk consumption increased over the period under review.

**Utilization Indicators**

- Proportion of households with poor and borderline food consumption stabilized.
- Proportion of children who were moderately and severely malnourished was 4.8% and 2.3% respectively.

**Early Warning Phase Classification**

Livelihood Zone	EW PHASE	TRENDS
Pastoral-All Species	Normal	Worsening
Agro-Pastoral	Normal	Worsening
Casual Waged Labour /Charcoal burning	Normal	Worsening
<b>County</b>	<b>Normal</b>	<b>Worsening</b>
Biophysical Indicators	Value	Normal Range/Value
Rainfall (% of Normal)	66.7mm	>0.7mm
VCI-3month (Isiolo)	44.17	>30.6
State of Water Sources	4	5
Production Indicators	Value	Normal
Livestock Body Condition	Good	Fair to Good
Milk Production	1.92 Litres	>1.54 Litres
Livestock deaths (from drought)	None	No deaths
Livestock Migration Pattern	Internal migration	Normal
Access Indicators	Value	Normal
Terms of Trade (ToT)	71.2	>47.1
Milk Consumption	1.30 Litres	>1.04 Litres
Return distance (water sources to households)	1.5 km	<4.9 km
Cost of water at source (20 litres)	Ksh 2.00	<Ksh. 5.00
Utilization indicators	Value	Range/Value
Moderately malnourished	4.8 percent	<3.0 percent
Severely malnourished	2.3 percent	<1.0 percent
Coping Strategy Index (CSI)	10.41	13.9
Food Consumption	47.6	>40.4

**Seasonal Calendar**

<ul style="list-style-type: none"> <li>▪ Short rains starts</li> <li>▪ Short dry spell</li> <li>▪ Reduced milk yields</li> <li>▪ Migration to dry season area</li> <li>▪ Land preparation</li> </ul>	<ul style="list-style-type: none"> <li>▪ Migration to wet grazing areas</li> <li>▪ Long rains</li> <li>▪ High Calving Rate</li> <li>▪ Milk Yields Increase</li> <li>▪ Reduced pasture/water stress (Normal Scenario)</li> </ul>	<ul style="list-style-type: none"> <li>▪ Long rains harvests</li> <li>▪ A long dry spell</li> <li>▪ Increased distances to water and pasture</li> <li>▪ Reduced water levels</li> <li>▪ Kidding (Sept)</li> <li>▪ Community/HH coping measures taken</li> </ul>	<ul style="list-style-type: none"> <li>▪ Short rains</li> <li>▪ Planting in Agro-pastoral LZ</li> <li>▪ Migration from dry season area</li> <li>▪ Increased milk yield</li> <li>▪ Reduced pasture/water stress (Normal scenario)</li> </ul>								
Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec

# 1. CLIMATIC CONDITIONS

## 1.1 RAINFALL PERFORMANCE

- From figure 1 below, dekadal rainfall estimates (RFE) amounts for the first, second and third dekad were below normal when compared to their respective long-term dekadal rainfall for estimate (RFE) averages. Generally, current dekadal rainfall amounts deviated from the normal trend from first dekad of the month under review with low amounts of rainfall compared to average.
- Normalized Difference Vegetation Index (NDVI) for the first, second and third dekads were normal when compared to their respective long-term dekadal NDVI values.

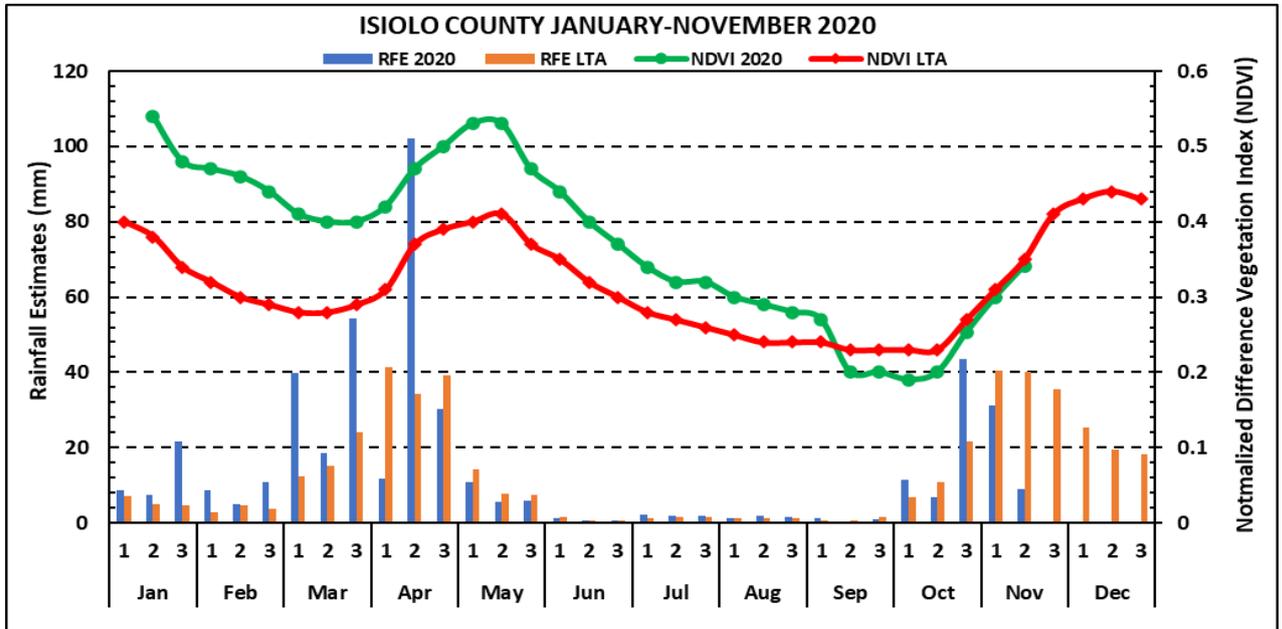


Figure 1: Rainfall estimates and NDVI

## 1.2 AMOUNT OF RAINFALL AND SPATIAL DISTRIBUTION

- The county received an average of 66.7mm, poorly distributed both spatially and temporally.
- Most parts of the county, including the larger pastoral livelihood zones have received very low amounts of rainfall, with most of them areas experiencing one to three rainy days.
- Most of the rains were received in the agro-pastoral livelihood zone, mainly Burat wards around Ngaremara area.

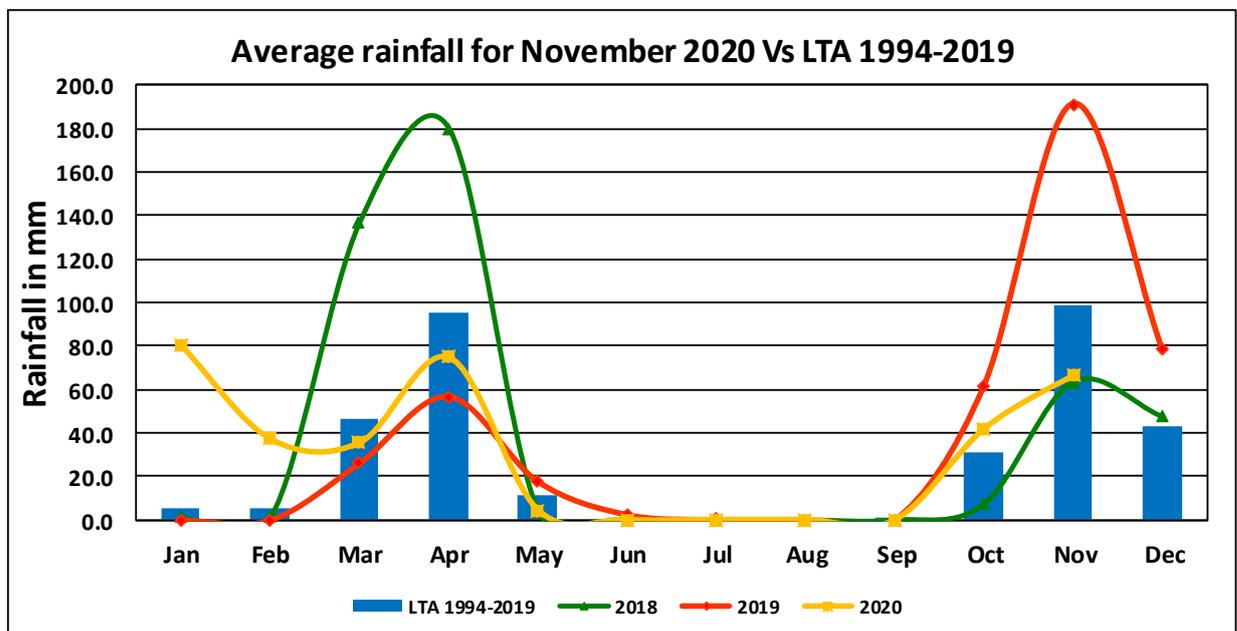


Figure 2: Average amount of rainfall (station data)

## 2.0 IMPACTS ON VEGETATION AND WATER

### 2.1 VEGETATION CONDITION

#### 2.1.1 Vegetation Condition Index (VCI)

- The matrix below illustrates November 2020 Vegetation Condition Index, classified as agricultural drought based on VCI thresholds. The chart shows a retrospective analysis of the vegetation condition as related to drought.

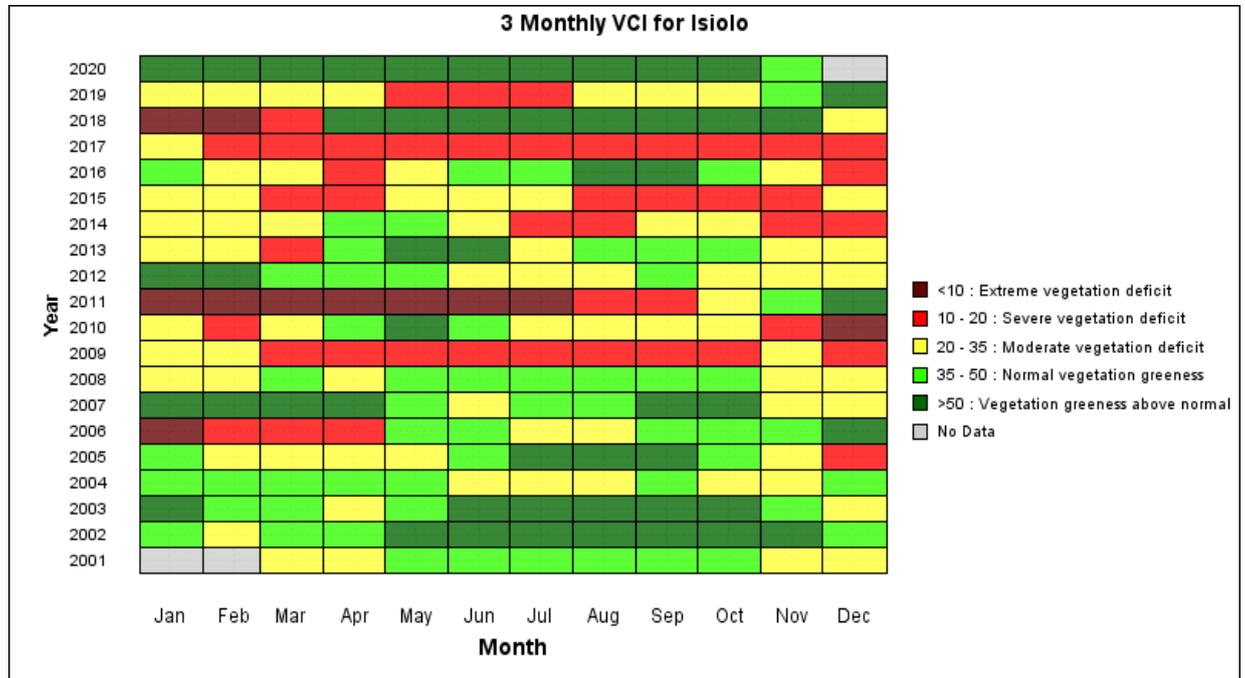


Figure 3: Vegetation Condition Index for Isiolo County

- The overall 3-Month vegetation condition index decreased significantly to 44.2 in the period under review from 49.7 in the previous month. At this index, the county changed from above normal greenness to normal vegetation greenness condition.
- The index has been on a declining trend, a phenomenon that could be attributed to the delayed and poorly performed short rains especially at the onset and peak months.
- Moreover, the overall vegetation condition drifted slightly to just normal vegetation greenness in both sub-counties.
- The vegetation condition is expected to decline further in the following month which is normally a period of short rains cessation.

#### 2.1.2 Pasture

- Majority of grazing areas pasture condition ranged from fair to poor. This was attributed to by the poor regeneration of natural vegetation following poor performance of rains in the ongoing rainy season.
- The proportion of grazing area with good fresh green pasture is significantly low especially in the pastoral livelihood zone attributed to the deprived reception of rains in the ongoing season.
- Overall pasture condition in the month under review was fair though at a better condition compared to a similar period in the previous year and in the long-term.
- The amount and quality of pasture is expected to improve marginally following poor performance of the short rains season.

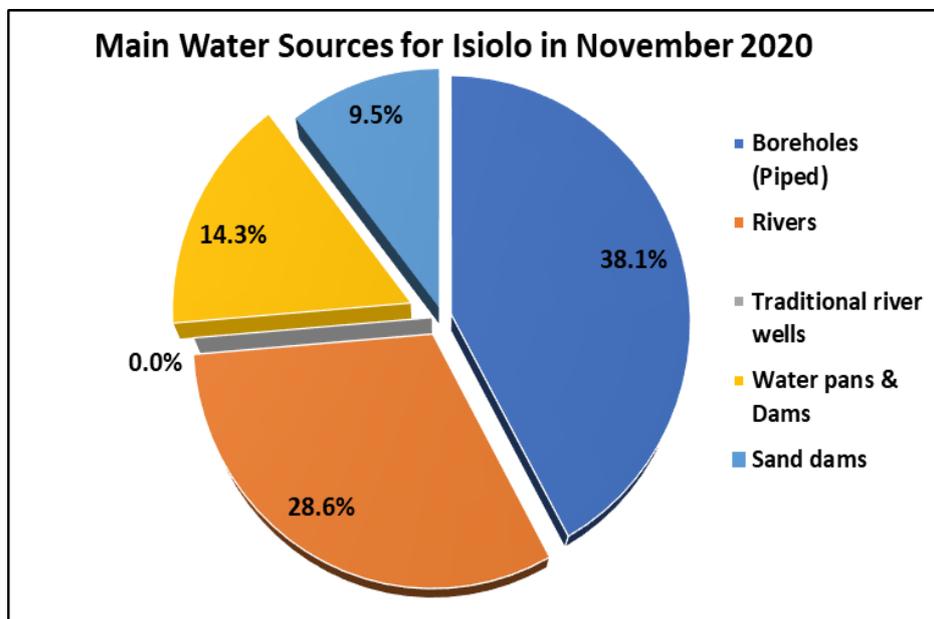
#### 2.1.3 Browse

- The condition of browse is ranged from fair to poor in the pastoral and agro-pastoral livelihood zones following moderate to poor regeneration after deprived performance of the ongoing rainfall season.

- The moderate browse availability has been attributed to a reasonable regeneration after reception of rains in late October and the month under review with a general poor performance.
- Overall browse condition in the month under review was at a poorer condition compared to a similar period in the previous year.
- Overall browse condition is expected to have little or no improvement going forward until the long rains season in March to May the following year. Its conditions will begin deteriorating in the following month as rains are expected to cease early into the following month after which hot weather is expected to resume.

#### 2.1.4 Water Sources

- Main water sources during the period under review were rivers and boreholes. Other sources included sand dams, water pans and dams.
- Recharge in rivers apart from River Ewaso Nyiro have lowly recharged while yield in boreholes and shallow wells were normal at this time of the year.
- The proportion of boreholes on normal usage increased to 65 percent from 42.4 percent in the previous month. There are total of 51 boreholes installed with sensors county wide. Consequently, 14 percent of boreholes were not used at all compared to four percent that recorded low use.



Households in established settlements accessed water from boreholes supplied through household taps and/or community water kiosks which is normal at this time of the year. Water supply for Isiolo town residents was normal with minor pipeline interruptions.

Figure 4: Main water sources

#### 2.1.5 Household access and Utilization

- Household water access distance to main sources reduced significantly to an average of 1.6km during the period under review. A large proportion of households accessed water from community distribution points or household taps.
- Water access from the boreholes was normal as communities' accessed water from rivers, shallow wells, water pans and sand dams that were partially recharged.
- Water availability in majority of semi-permanent sources such as rivers, sand dams, traditional river wells and shallow wells is expected to stabilize in the following month and highly likely to increase in the month of January, that is characterized by a dry spell.
- The average cost of water from piped distribution points (*kiosks*) was Ksh.2.00 per 20 litre jerrican which is normal at this time of the year.
- Waiting time at main sources in the pastoral livelihood zones settlements stabilized between 5 and 15 minutes.
- The longest one-way distance was in Cherab ward where household walked an average of 4.0km (one way) to River Ewaso Nyiro. The lowest average distance of about 0.3km was

recorded in the casual-waged labour livelihood zone where households access water from household/community access taps.

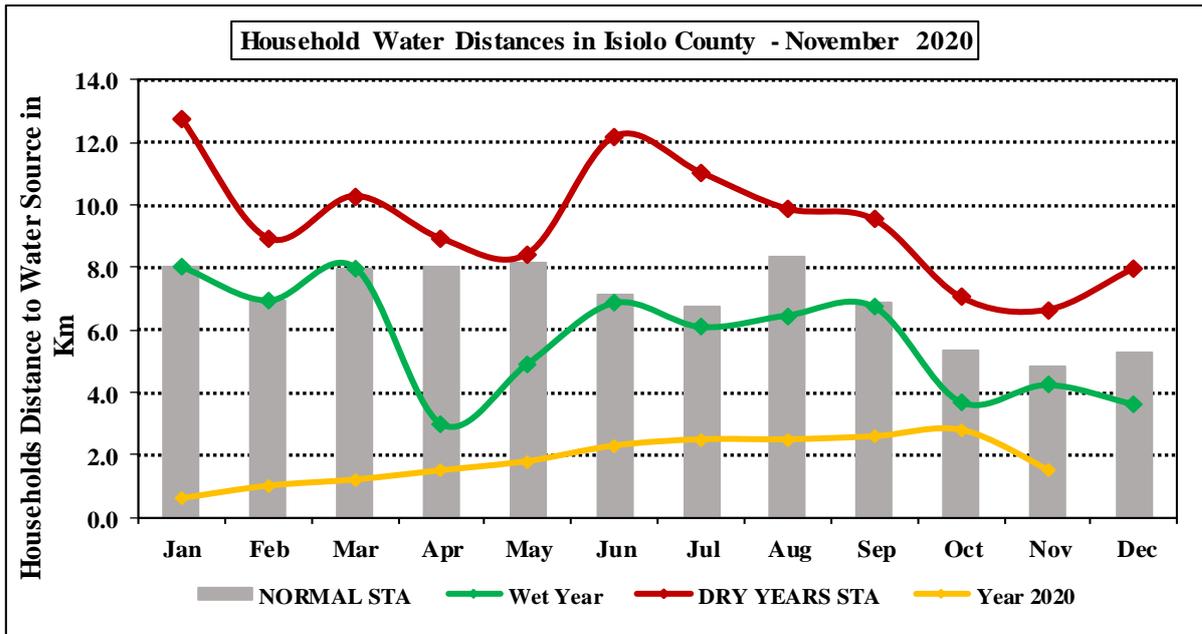


Figure 4: Household distance to water sources

### 2.1.6 Livestock Access

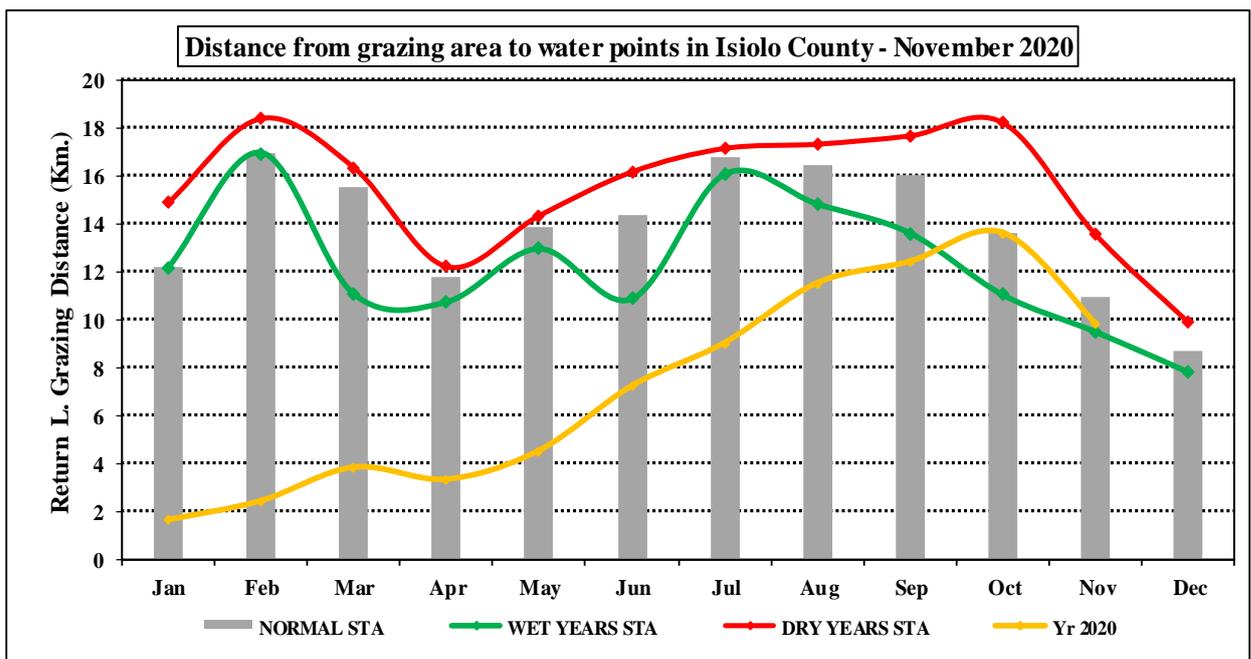


Figure 5: A graph of distance to grazing areas from water points

- The average distance to water sources from the grazing areas recorded a significant decline to 9.8km in the month under review from 13.6km in the previous month.
- The decline in watering distance was mainly attributed to the partial recharge of open surface water sources and the slight improvement in pasture resources in the pastoral and agro-pastoral livelihood zones.
- The month's average livestock watering distance was slightly below the long-term average of 10.9km at a similar period of the year.
- Livestock watering interval ranged from one to two days for cattle, sheep and goat and four to six days for camels. Watering distance from grazing areas expected to increase considerably following poor recharge to water sources and a deprived availability of pasture in the pastoral and agro-pastoral livelihood zones.

### 3.0 PRODUCTION INDICATORS

#### 3.1 LIVESTOCK PRODUCTION

##### 3.1.1 Livestock Body Condition

- Body conditions for all livestock species ranged from good to fair in the pastoral and agro-pastoral livelihood zones.
- This is attributed to the fairly adequate availability of feed thereby providing a favourable environment for livestock production.
- The livestock body condition is expected to improve in the short run after which majority of animals' nutrition is expected to decline.
- The current livestock body condition was relatively better compared to a similar period in the long-term.

##### 3.1.2 Livestock Diseases

- CCPP as an endemic livestock disease was reported in several areas across the county.
- Also reported was sheep and goat pox mainly in Garbatulla and Sericho.
- Enterotoxiemias was reported among sheep in Burat and parts of Ngaremara wards.

##### 3.1.3 Milk Production

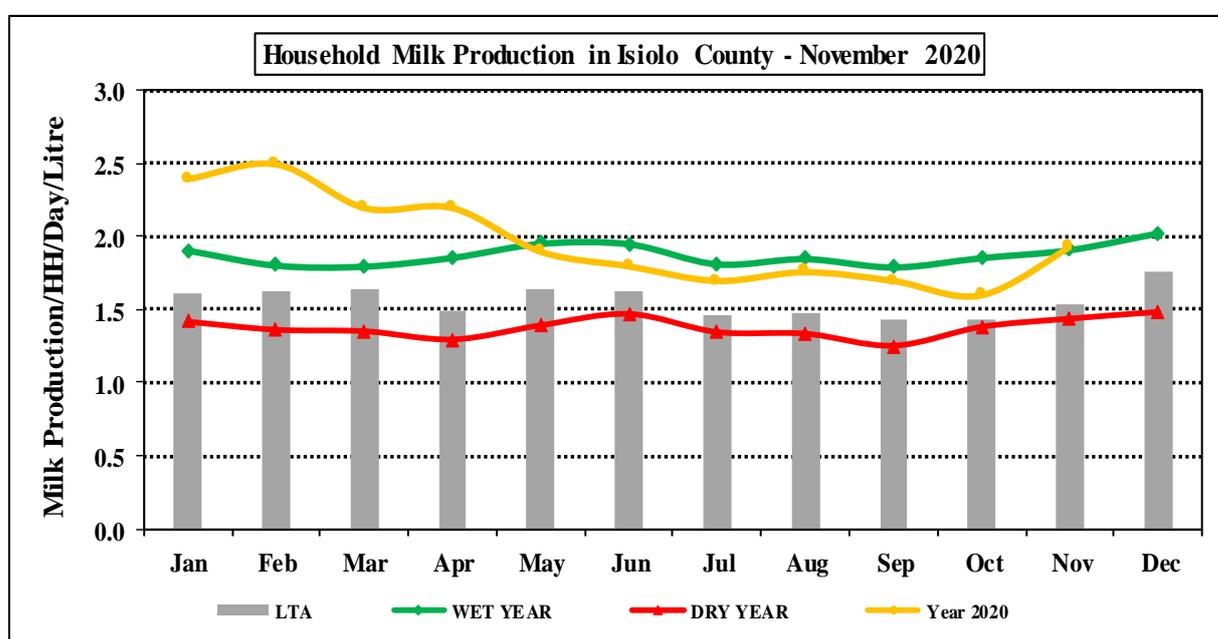


Figure 6: A graph of average milk production in litres

- Milk produced in milking households increased to 1.92 litres in the month under review from 1.60 litres in the previous month.
- The slight increase in milk produced could be attributed to availability of fresh forage and a substantial decline in watering distances in the pastoral and agro-pastoral livelihood zones.
- Kinna, Burat and Garbatulla wards are the biggest producers of milk that is supplied to Isiolo markets where camel population is higher compared to other areas.
- The amount produced is expected to increase considerably in the following month as quantity and quality of forage is expected to be better should the rain continues in the following month.

### 3.2 RAIN-FED CROP PRODUCTION

#### 3.2.1 Stage and Condition of Food Crops

- Majority of crops mainly beans, maize, green grams and cow peas are healthy at young stages. A significant proportion of farmers were continued weeding for their crops and application of fertilizers in the maize farms.
- However, small scale irrigation went on along the rivers which are still flowing with water where there was continued watering of horticultural crops including onions, kales and tomatoes.

## 4.0 MARKET PERFORMANCE

### 4.1 Livestock Marketing

#### Cattle Prices

- Average cattle price recorded a marginal increase to Ksh. 29,100 in the month under review from Ksh 28,600 in the previous month.
- Cattle price stability was partly attributed to a relatively rising demand amid low supply of cattle into the markets as pastoralists hold them to retain them for breeding. Prevailing market conditions were also relatively favorable.
- The price is expected to increase in the following month as the festive season beckons where demand for red meat increases significantly.
- The highest average price was recorded in Isiolo town market at Ksh.34,000 while the least was Ksh.25,000 in Bisan Biliqo market.
- The period's price was however 27 percent above the long-term average of Ksh.22,400 at the same period of the year.

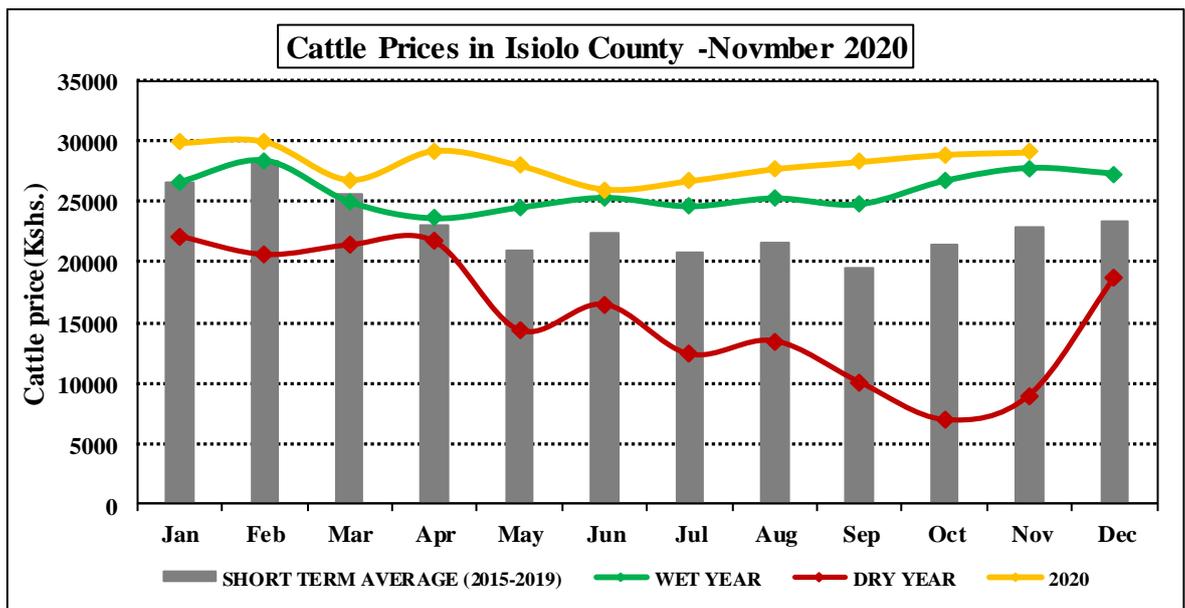


Figure 7: A graph of average market price of cattle

#### Small Ruminants Prices (Goat)

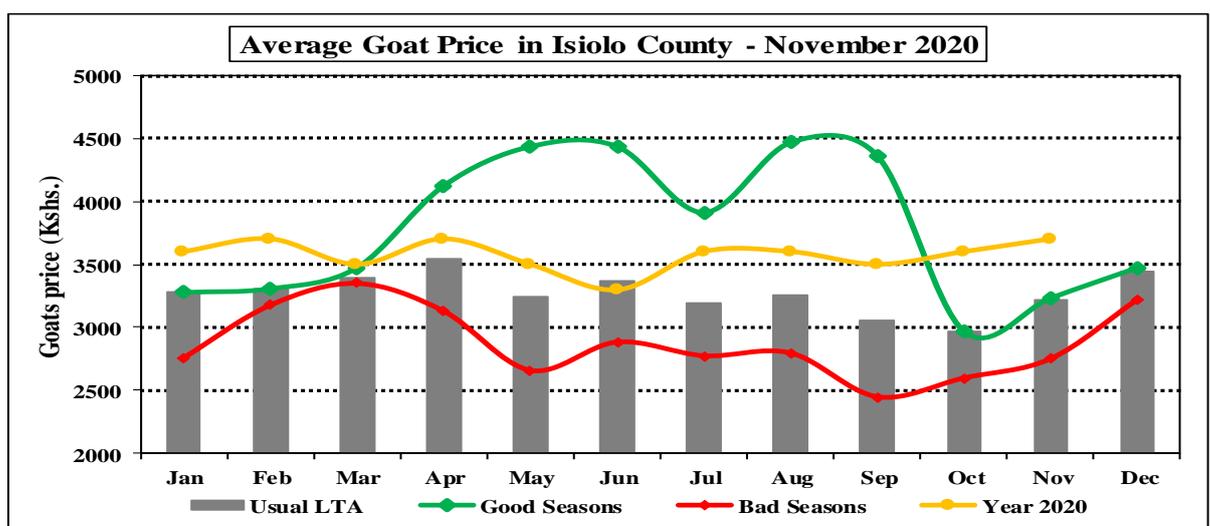


Figure 8: Monthly average market price of goats

- Average goat price increased slightly to Ksh.3,700 in the month under review from Ksh. 3,600 in the previous month.
- Price increment recorded could be attributed to a rising demand against a low supply occasioned by a long-held culture of withholding for breeding purposes by a large proportion of herders. Demand remained high within and outside the county.
- There is a high likelihood of the price rising further in the following month when demand is expected to be at its peak in the year as end of year festivities approach. The stable body condition has kept the price upbeat throughout the year.
- The least and highest market prices recorded were Ksh.3,000 and Ksh.4,500 in Oldonyiro and Isiolo town markets respectively.
- Average goat price for the period was 15 percent lower than the long-term average of Ksh.32,200 during the same period of the year.

## 4.2 CROP PRICES

### Maize

- The market price of a kilogram of maize stabilized at Ksh.52 in the month under review.
- The cereal price stability was attributed to its steady supply to the markets in and out of the county.
- The cereal's price is expected to have stabilize as the year ends with likely price rise in February should the ongoing rains season fail in the county and her neighbours.
- Cereals lowest price was Ksh.45 in Isiolo town and Oldonyiro markets and highest in Merti at Ksh.60. The cereal's price in rural markets including Merti, Bisan Biliqo and Sericho was relatively high as supplies were not consistent attributed to the long distances and community cereal preferences.
- Average price of maize was seven percent lower than the long-term average of Ksh.56 at a similar period of the year.

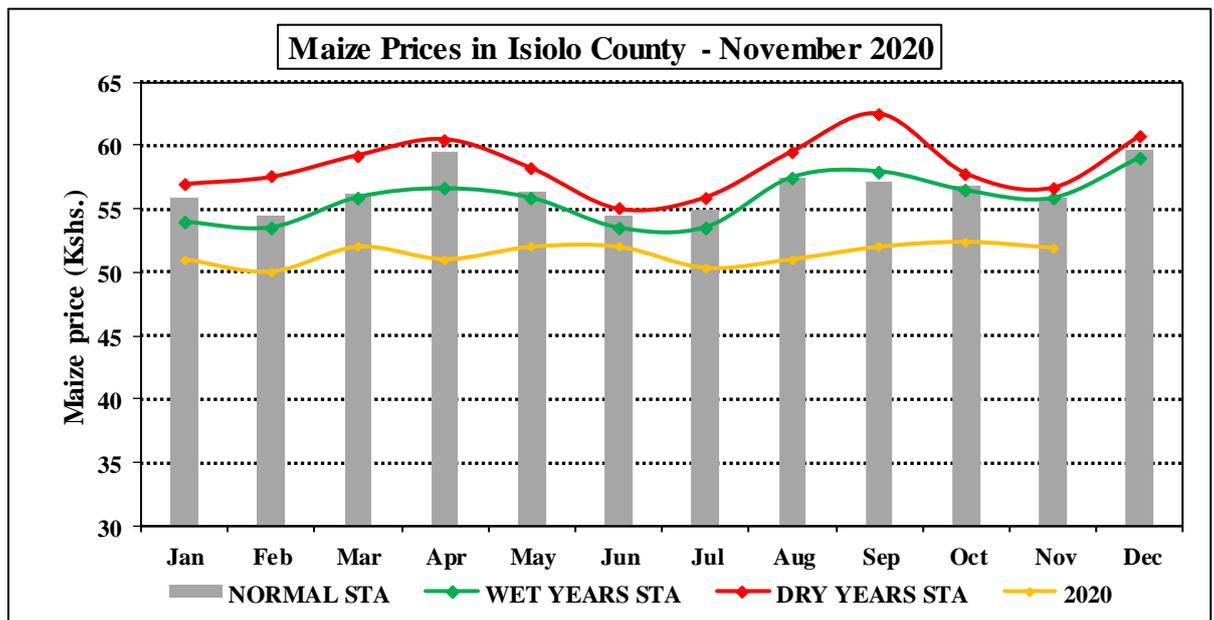


Figure 9: A graph of average maize (cereal) market price in the county

### Beans

- Average price of beans stabilized at Ksh. 110 in the month under review.
- The pulse's price stability could be attributed to a consistent demand within the county. Pulse supplies were also consistent throughout the month.
- The pulse's price is expected to increase significantly towards the beginning of the following year before harvests for the ongoing rainy season are made.
- The highest price was recorded in Merti market in the pastoral livelihood zone at an average of Ksh.120 while the lowest price was in Isiolo at Ksh.90 in Isiolo central market.

- The price was six percent lower than the long-term average price of Ksh.118 during a similar period of the year.

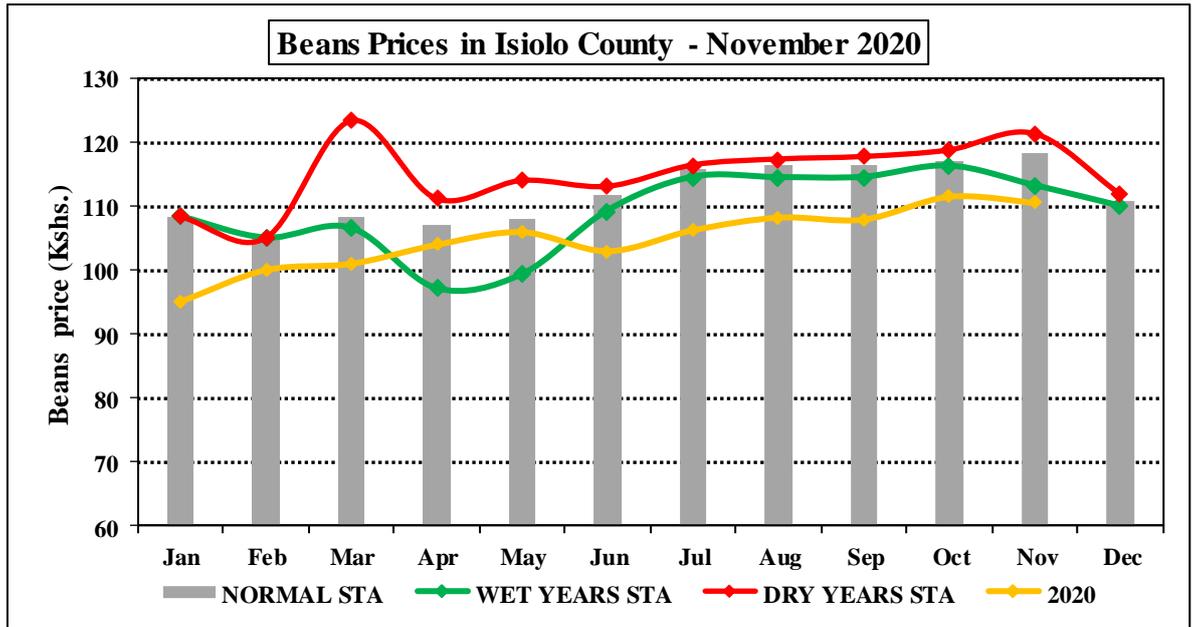


Figure 10:A graph showing average market price for pulses (beans)

#### 4.3 Livestock Price Ratio/Terms of Trade

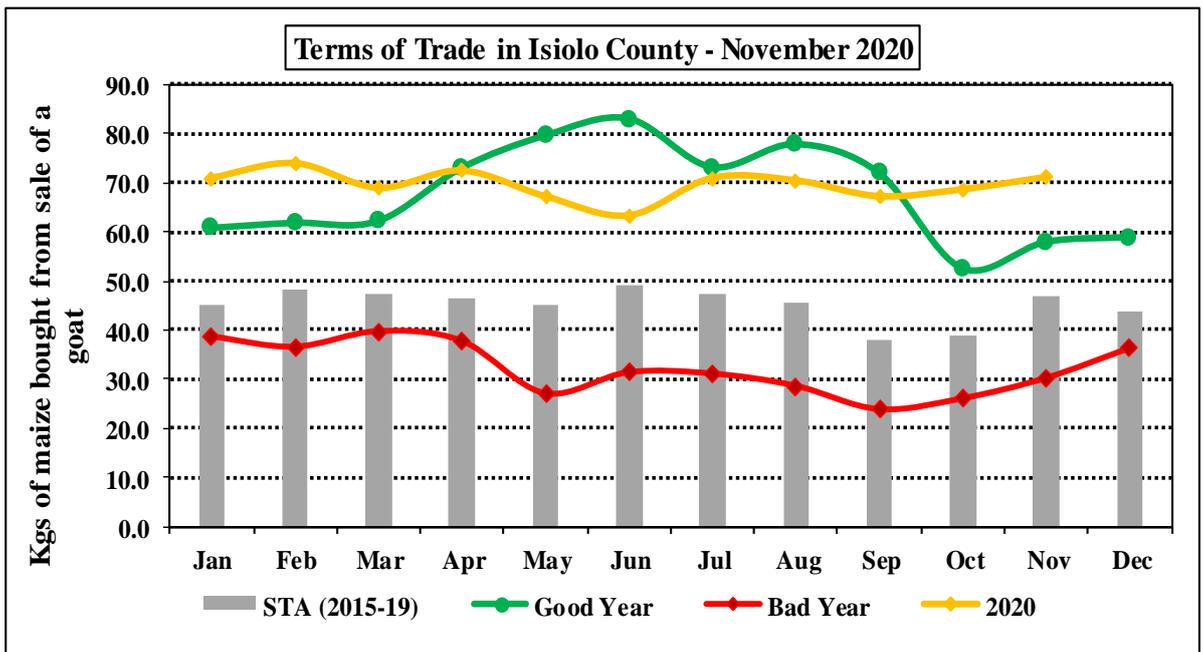


Figure 11:A graph showing the typical pastoralist households Terms of Trade in the county

- Terms of Trade (the number of kilograms of maize a pastoralist would purchase after a sale of one goat) increased marginally to 71kg/goat in the period under review from 68kg in the previous month.
- The ratio was 51 percent higher than the long-term average of 47kg/goat at a similar period of time in a year.
- Stability in the TOT reflected that household's purchasing power was stable attributed to the enhanced productivity of the major livelihoods. The measure of purchasing power may decline substantially should the ongoing rains perform below average as predicted.

## 5.0 FOOD CONSUMPTION AND NUTRITION STATUS

### 5.1 Milk Consumption

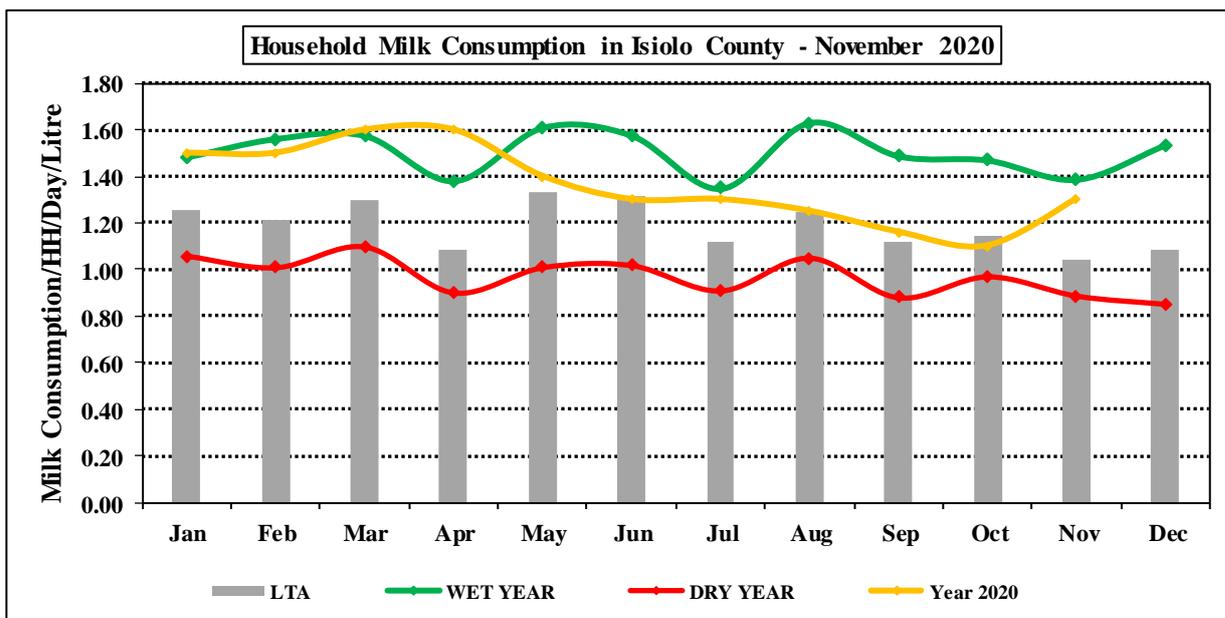


Figure 12: Average milk consumption in litres

- Average milk consumption per household increased substantially to 1.3 litres in the month under review from 1.10 litres in the previous month.
- The low amount of fresh milk consumed at the households was attributed to slight increase in the amount produced.
- Average consumption was 25 percent higher than the long-term average during a similar period of the year.
- Consumption was higher in the pastoral livelihood zone when compared to the agro-pastoral and casual-waged labor/employment livelihood zones.

### 5.2 FOOD CONSUMPTION SCORE

- Patterns of household food consumption deteriorated marginally as shown in Figure 13 where an estimated 2 percent of households had poor food consumption. At the same time, another 21 percent of households had borderline food consumption.

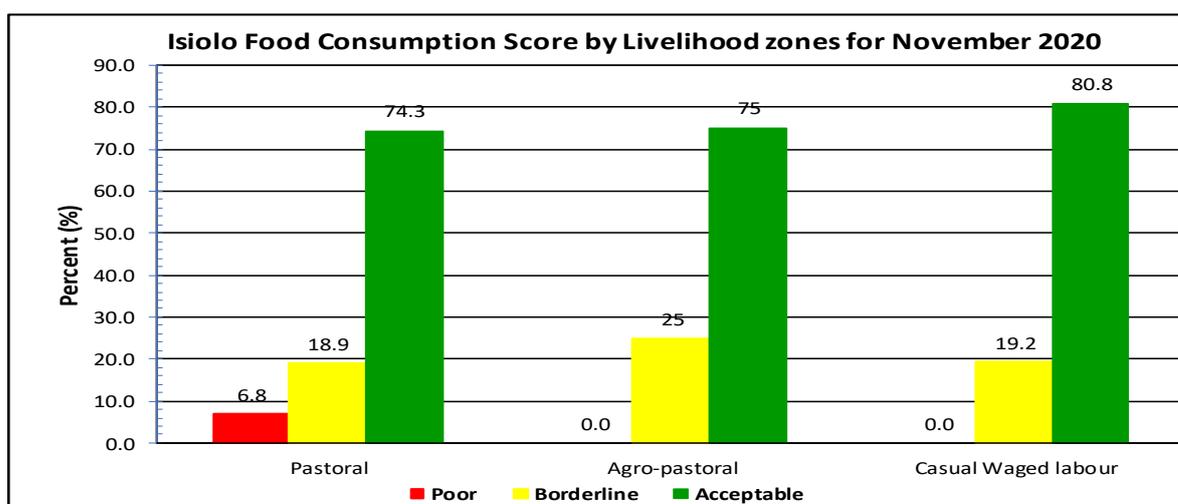


Figure 13: Households' food consumption score

- The pastoral livelihood zone was the only area with households that had poor food consumption. The same area had more households having an acceptable food consumption mainly attributed to the increased consumption of fresh milk.
- Though food consumption was good in the pastoral livelihood zone, the dietary diversity has remained considerably poor, a scenario that is blamed on poor availability of much of the recommended diversity of food groups in far flung rural markets mainly due to transport and in some area low demand.
- Food consumption situation is expected to improve substantially in the month of December when short lived impacts of the ongoing short rains are expected to materialize.

## 5.3 HEALTH AND NUTRITION STATUS

### 5.3.1 Nutrition Status

- In the month of October, 2.3% and 4.8% of children were severely malnourished and moderately malnourished respectively. The proportion stabilized compared to the month of October combined rate of 7.4% of the total children population.

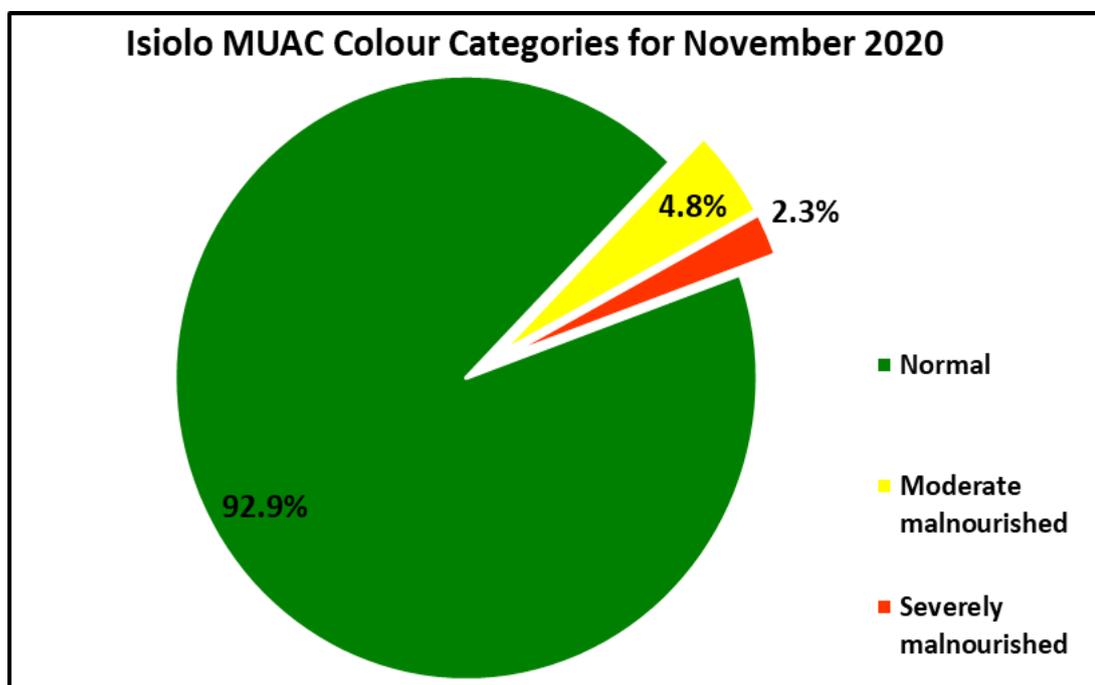


Figure 14: Proportion of under five years who are moderately and severely malnourished

- The proportion of children who are moderately malnourished increased marginally from the previous month rate. This could be attributed to the increased incidences of diarrhea among under-fives due to consumption of untreated water from surface run-offs.
- The prevailing rate of children at risk of malnutrition is attributed to poor young child nutrition among pastoral households as well as high prevalence of endemic diseases such as diarrheal ailments and upper respiratory tract infections among the under-fives.

### 5.3.2 Health

- The health seeking behavior in the county has gone down blamed on fear of contracting the Covid-19 disease.
- However, the general populations' most prevalent diseases included acute upper respiratory tract infections (URTI), malaria, skin disease, urinary tract infections and rheumatism.
- Children under five years' most prevalent diseases included the diarrheal, acute respiratory tract infections, pneumonia, intestinal worms and skin disease.

## 5.4 COPING STRATEGIES

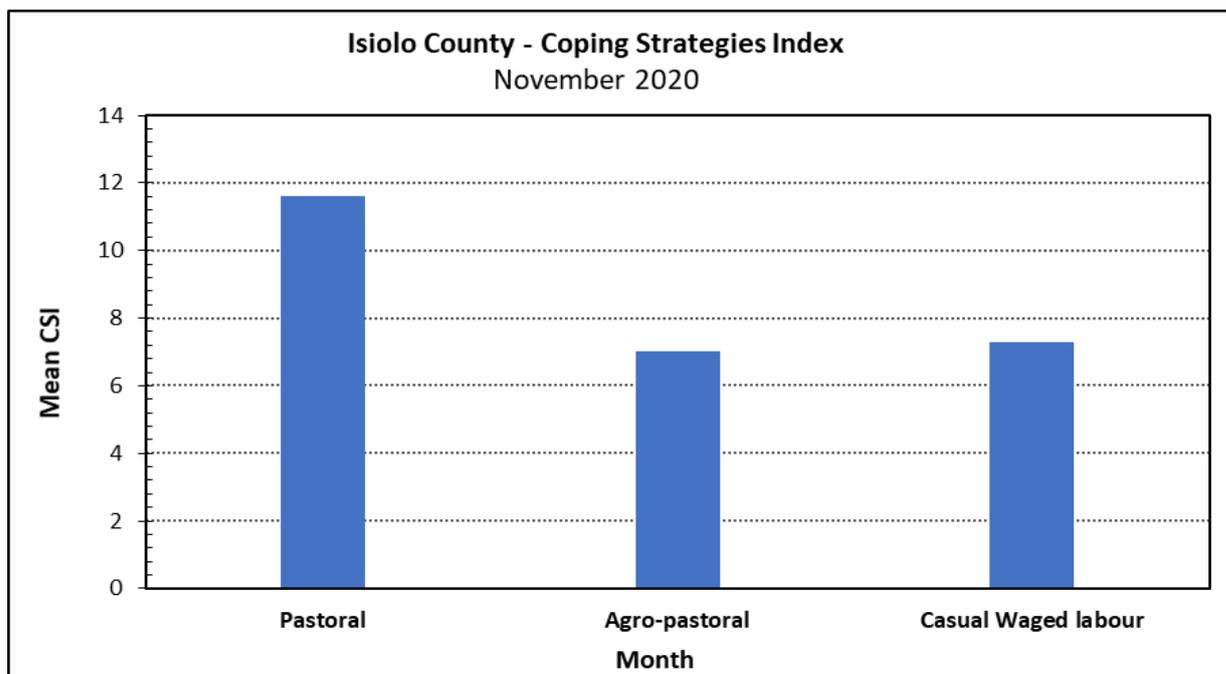


Figure 15: Household Reduced Coping Strategies Index

- Coping Strategy Index (CSI) stabilized at 10.4 during the month under review implying that there were no significant changes in employment of livelihood and food-based coping strategies compared to the previous month.
- The stability could be attributed to a sustained food availability at household level in all livelihoods following a continued normal productivity of major livelihoods.
- However, a small proportion of households continued to employ quite a number of food livelihood-based coping strategies attributed to lacks brought by economic hardships occasioned by the impacts of Covid-19.
- The most commonly employed coping mechanisms over the period was skipping of meals, reliance on less preferred and/or less expensive foods as well as taking credit from neighbours and shops.
- Other commonly employed coping strategies are reduction of the number of meals and reduction in portion or size of meals and borrowing.
- The most commonly employed livelihood based coping strategy was spending of savings.

## 6.0 CURRENT INTERVENTION MEASURES (ACTIONS)

### 6.1 NON-FOOD INTERVENTIONS

Table 1: A table showing the current non-food interventions in the county

Type of intervention	Ward	Sub-county	Action	Amount/ Targets
Cash transfer to HHS affected by locust invasion	Oldonyiro (Kipsing and Lenguruma location, Gotu, Godha, Bassa, Barambate, Kula mawe, Yaqbarsati, Malkadaka, Gafarsa Iresaboru,	Isiolo North and Isiolo South	Mid-P	1792 HHS
	Ngaremara ward Cherab ward	Isiolo North	CRS-NAWIRI	200HH Ngaremara 400HH Cherab
	Oldonyiro, Charri Kinna	Isiolo North Isiolo South	FAO	1000 HH
Prepositioning of drugs and medical equipment in health institutions	All wards	Isiolo North and Isiolo South	Isiolo County Government	36 health facilities
Support vulnerable household with drought tolerant seeds and tools	Burat, Cherab and Kinna	Isiolo North	CRS-NAWIRI Caritas-Isiolo	500HH
Livestock disease surveillance	All wards	All sub county	RPLRP and VSF SUISSE	All wards

## **7. EMERGING ISSUES**

### **7.1 Insecurity/Conflict/Human Displacement**

- A major resource-based conflict was reported along Wajir-Isiolo pitting herders from Merti and Wajir West sub-counties.

### **7.2 Migration**

- Movements in search of forage were mainly internal with a few immigrants from neighbouring counties such as Wajir and Garissa. There were internal movements of herders deeper into areas around Kulamawe and Gachuru, area that have received more rains within the county.

## **7.2 Assumptions and Food Security Prognosis**

### **Assumptions**

- The short rains season of 2020 will be below average.
- The rate of insecurity will be low.

### **Prognosis**

- The level of food security in the county is good primarily attributed to the cumulative impact of the above normal performance of (OND) 2019 short rains season and a relatively below normal long rains (MAM) 2020 season. However, the situation looks bleak as the ongoing rainy season performed dismally during the month under review, which is usually the peak period for the short rains.
- Livestock production contributed much to the county's available food in all livelihood zones with majority of livestock having a stable animal body condition. Moreover, milk production increased considerably following availability of fresh forage. However, the increase in production is expected to be short lived due to the minimal impact of the ongoing rains on the replenishment of county rangelands.
- Crop production is going on well in the current season though its productivity will be greatly affected by the poor rainfall performance recorded so far. Low production at the end of the season may mean households would have low stocks due to poor harvests. However, small-scale irrigation ongoing along the rivers would be instrumental in provision fresh farm produce including vegetables and fruits to local markets.
- Accessibility to livestock and farm produce markets was normal with majority of households accessing food commodities from the markets. The situation is expected to be stable for the next three months.
- Food consumption has been stable in all livelihoods as majority of households had acceptable food consumption. However, this may be negatively affected by low availability that might result from low production expected during the current season.
- Food utilization was greatly enhanced by the relatively stable availability of water in all livelihood zones. However, water availability is expected to be low following poor recharge in majority of sources as the ongoing rainy season underperformed at its peak and may lead to increased distances to sources in the next three months.
- There was minimal competition over rangeland resources as majority of the grazing areas are still remaining with fair amounts of feed stocks though on a declining trend due to poor regeneration.
- The overall food security situation remains in the stressed phase (IPC 2) and on a declining trend.

## **8. RECOMMENDATIONS**

- Sensitize the community on safety precautionary measures to stem spread of coronavirus disease (COVID-19).
- Upscale where necessary cash transfer programs to caution vulnerable households against impacts of the livelihood losses that emanated from imposition of Covid-19 restrictions aimed at controlling the spread of coronavirus disease (COVID-19). This will aid in supplementing households diminished incomes to sustain their food consumption.
- Promote commercial destocking of cattle and sheep while the livestock are still in good body condition to ease pressure on available forage resources and in case the short rains fail.
- Support re-opening of schools with water storage facilities, construction of additional sanitation facilities, desks, hand sanitizers and face masks.
- Engage and support grazing committees to enable them come up with appropriate community's' grazing patterns so as to ensure the available meagre forage resources are sustainably utilized and prevent or minimize resource-based conflicts in the January-March dry spell.
- Sensitize caregivers at the household level on disease and malnutrition identification in children under five years of age to enhance screening during the prevailing period where public health measures have been enforced to control spread of COVID-19. This will help formulate appropriate nutrition interventions.
- Provide support for an active and continuous human and livestock disease surveillance for any possible outbreak.
- Promotion of hygiene and sanitation practices especially the Community Led Total Sanitation (CLTS).