National Drought Management Authority

ISIOLO COUNTY

DROUGHT EARLY WARNING BULLETIN FOR AUGUST 2020

AUGUST 2020 EW Phase

Drought Cycle Stage: Normal

Drought Situation & EW Phase Classification

Biophysical Indicators

- August was characterized by hot sunny weather with strong winds during the day and part of night time.
- The county Vegetation Condition recorded during remained at an above normal vegetation greenness.
- Condition and availability of forage was fair, with a steady rate of depletion.
- Water availability was on a declining trend as there was no significant recharge during the long rains.

Socio Economic Indicators (Impact Indicators)

Production Indicators

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

Access Indicators

- Livestock prices improved significantly after re-opening of markets and easing of travel restrictions as food commodities prices stabilized.
- Household milk consumption was good but reduced slightly over the period due to low production.

Utilization Indicators

- Proportion of households with acceptable food consumption stabilized
- Proportion of children who moderately malnourished was 3.2% and severely ones was 2.0%.

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
County	**Normal**	**Worsening**
Biophysical Indicators	**Value**	**Normal Range/Value**
Rainfall (% of Normal)	0mm	>1.0mm
VCI-3month (Isiolo)	65.4	>39.5
Water Sources	6	6
Production Indicators	**Value**	**Normal**
Livestock Body Condition	Good	Fair to Good
Milk Production	1.76 Litres	>1.47 Litres
Livestock deaths (from drought)	None	No deaths
Livestock Migration Pattern	Internal migration	Normal
Access Indicators	**Value**	**Normal**
Terms of Trade (ToT)	70.5	>45.4
Milk Consumption	1.25 Litres	>1.25 Litres
Return distance to water households	2.5 km	<6.7 km
Cost of water at source (20 litres)	Ksh 2.00	<Ksh. 5.00
Utilization indicators	**Value**	**Range/Value**
GAM (WHZ)	16.7 percent	
Coping Strategy Index (CSI)	11.1	<14.1
Food Consumption	72.5 Percent Acceptable	>44.3 Percent Acceptable

Seasonal Calendar

▪ Short rains starts ▪ Short dry spell ▪ Reduced milk yields ▪ Migration to dry season area ▪ Land preparation	▪ Migration to wet grazing areas ▪ Long rains ▪ High Calving Rate ▪ Milk Yields Increase ▪ Reduced pasture/water stress (Normal Scenario)	▪ Long rains harvests ▪ A long dry spell ▪ Increased distances to water and pasture ▪ Reduced water levels ▪ Kidding (Sept) ▪ Community/HH coping measures taken	▪ Short rains ▪ Planting in Agro-pastoral LZ ▪ Migration from dry season area ▪ Increased milk yield ▪ Reduced pasture/water stress (Normal scenario

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec

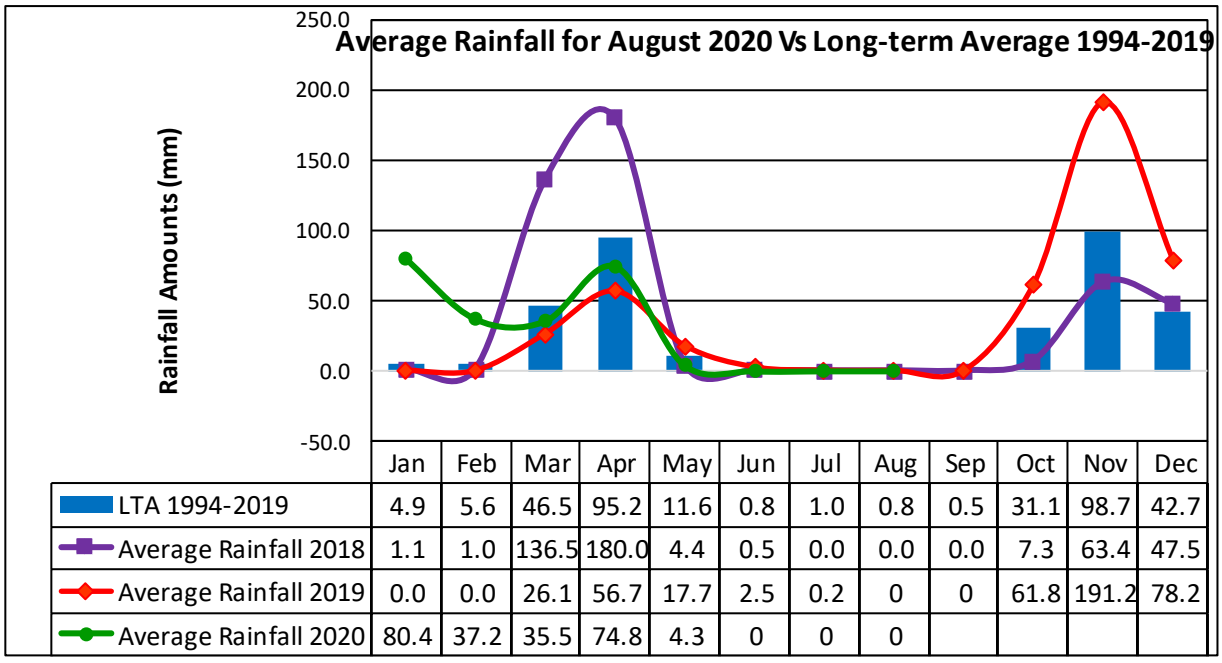
1. CLIMATIC CONDITIONS

1.1 RAINFALL PERFORMANCE

- August was characterized by hot sunny weather with strong winds during the day and part of night time
- The period marked a three months period after the long rains whose performance was below normal in terms of spatial and temporal distribution and therefore limited impact on county rangelands.

1.2 AMOUNT OF RAINFALL AND SPATIAL DISTRIBUTION

- The county received no significant amount of rainfall. However, an off season light showers were received in Isiolo sub-county mainly in Isiolo Central; Oldonyiro and Burat wards.



	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
LTA 1994-2019	4.9	5.6	46.5	95.2	11.6	0.8	1.0	0.8	0.5	31.1	98.7	42.7
Average Rainfall 2018	1.1	1.0	136.5	180.0	4.4	0.5	0.0	0.0	0.0	7.3	63.4	47.5
Average Rainfall 2019	0.0	0.0	26.1	56.7	17.7	2.5	0.2	0	0	61.8	191.2	78.2
Average Rainfall 2020	80.4	37.2	35.5	74.8	4.3	0	0	0				

Figure 1a: A graph showing station rainfall performance for Isiolo County

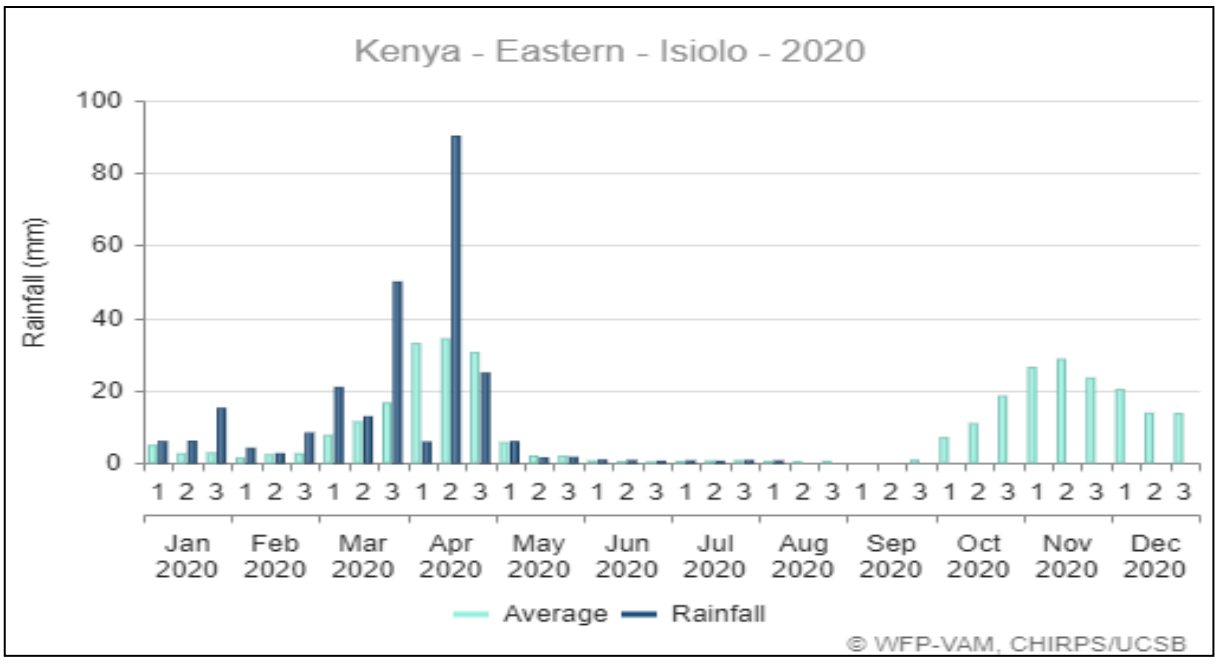


Figure 1b: A graph showing decadal rainfall performance for the current year compared to the long-term average. Source WFP-VAM, CHIRPS

2. 0 IMPACTS ON VEGETATION AND WATER

2.1 VEGETATION CONDITION

2.1 1 Vegetation Condition Index (VCI)

- The matrix below illustrates August 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.

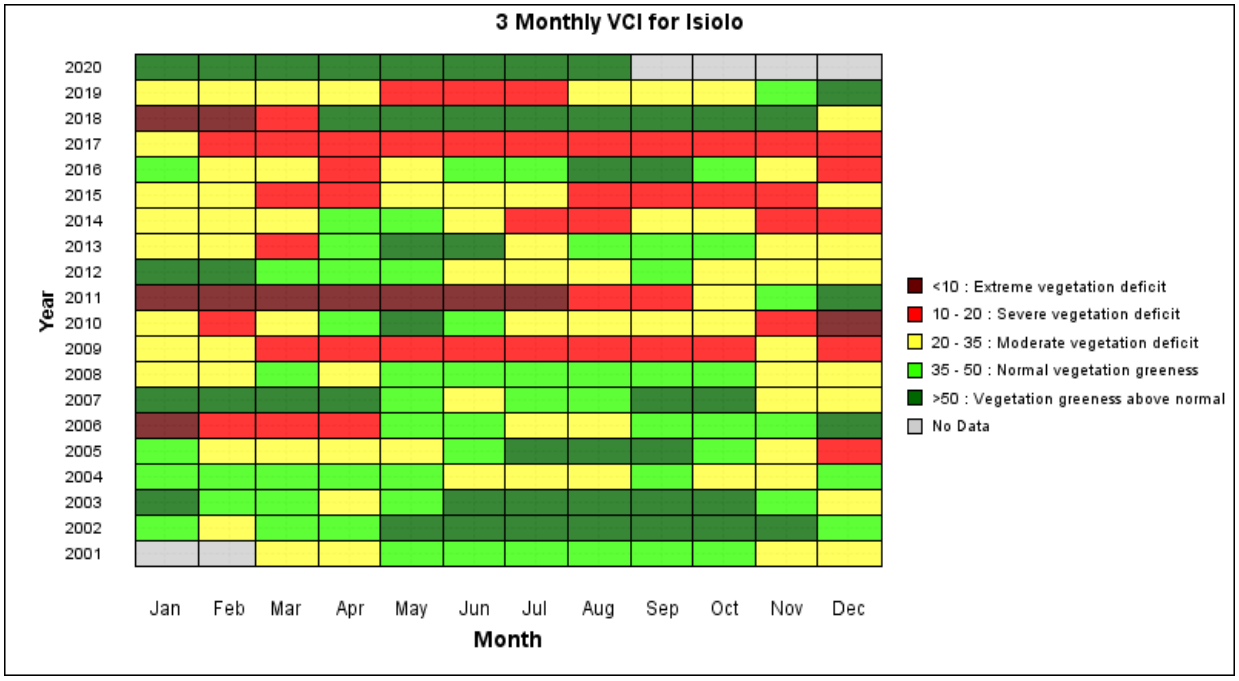


Figure 2: A chart of 3-Monthly Vegetation Condition Index

- The overall 3-Month vegetation condition index increased slightly to 65.4 from 51.3 in the previous month. At this index, the county maintained an above normal vegetation greenness.
- However, the index has been on a declining trend since end of long rains season mainly attributed to drying and shedding of leaves by a variety of trees and shrubs in the pastoral and agro-pastoral livelihood zones.
- Moreover, the overall vegetation condition remained above normal both sub-counties.
- The vegetation condition is expected to have a slight decline in the following month of September as the long dry spell continues.

2.1.2 Pasture

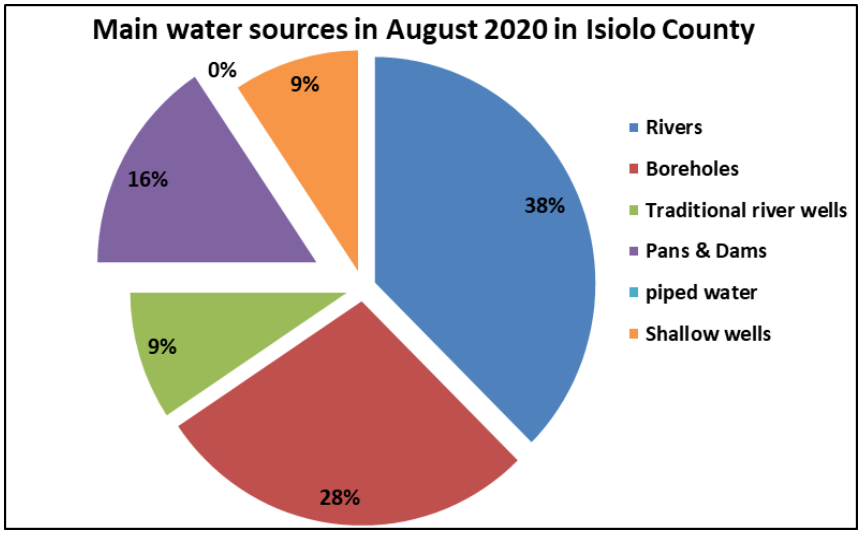
- The general condition of pasture in majority of grazing areas ranged from good to poor in the pastoral and agro-pastoral livelihood zones. The condition of pasture has been deteriorating progressively in the traditional grazing areas.
- The gradual exhaustion of forage resources in traditional grazing areas has been attributed to poor regeneration of pasture during the long rains season whose performance was below normal.
- Quality of available pasture was poor as majority is now dry with very little moisture content and nutrients.
- Overall pasture condition in the month under review was good though at a better condition compared to a similar period in the previous year and in the long-term.

2.1.3 Browse

- The condition of browse in the pastoral and agro-pastoral livelihood zones ranged from good to fair in the pastoral and agro-pastoral livelihood zones though on a deteriorating trend.
- Browse deterioration was partially attributed to early shedding of leaves by trees and shrubs following an early cessation and poor performance of the long rains season which had significantly low impact on natural vegetation regeneration.

2.1.4 Water Sources

- Main water sources during the period under review included rivers, boreholes, sand dams, water pans and dams.
- Yield in boreholes and shallow wells were good.
- There was a normal usage of 68.4 percent of boreholes installed with sensors with a few being in a state of seasonal disuse.



- 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 3: Main water sources

2.1.5 Household access and Utilization

- Household water access distance to main sources stabilized at an average of 2.5km during the period under review where a large proportion of households accessing from community distribution points or household taps.
- Pressure on boreholes was moderate as communities' accessed water from rivers, shallow wells, water pans and sand dams that were significantly recharged.
- Water availability in majority of semi-permanent sources such as rivers, sand dams, traditional river wells and shallow wells is expected to decline in the period between August and October as the long dry season continues.
- 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 to River Ewaso Nyiro. The lowest average distance of about 0.3km was recorded in the casual-waged labour livelihood zone.

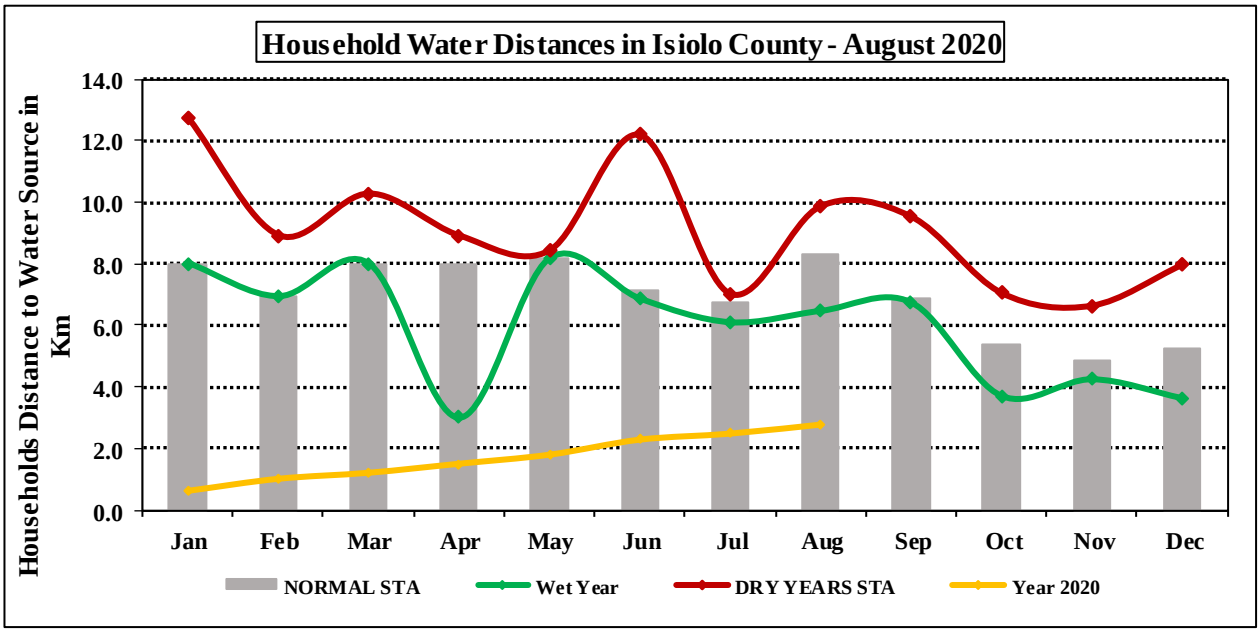


Figure 4: Household distance to water sources

2.1.6 Livestock Access

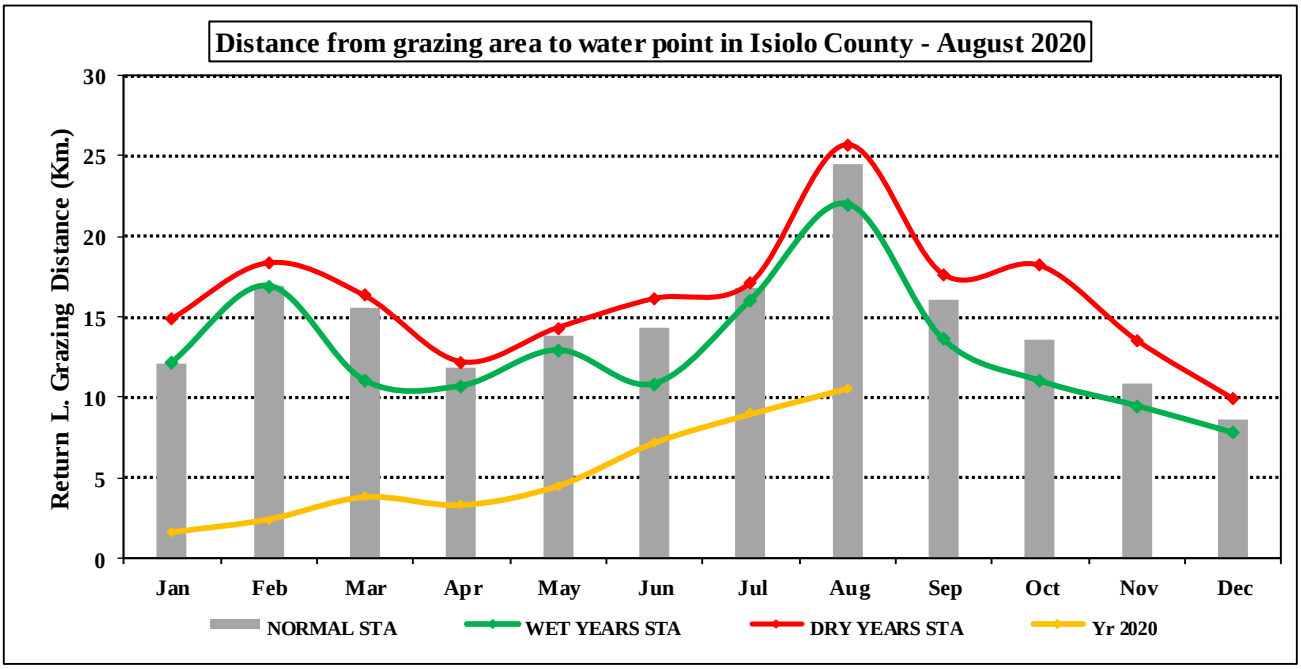


Figure 5: A graph of distance to grazing areas from water points

- The average distance to water sources from the grazing areas recorded a significant increase to 11.5km from 9.0km in the previous month.
- The increase in distance was mainly attributed to the recorded decline in availability of pasture in traditional grazing areas as well as depletion of temporary water sources.
- The month's average livestock watering distance was 42 percent below the long-term average of 16.8km at a similar period of the year.
- All livestock animals were mainly watered at boreholes and open water sources such as rivers, sand dams and water pans.
- Watering distance from grazing areas expected to increase in the following month as the long dry spell continues attributed to the below normal performance of the long rains season.
- Livestock watering interval ranged from one to two days for cattle, sheep and goat and four to six days for camels. The interval is likely to increase as rangeland resources decline during the long dry spell until onset of this year short rains season.

3.0 PRODUCTION INDICATORS

3.1 LIVESTOCK PRODUCTION

3.1.1 Livestock Body Condition

- Body conditions for all livestock species was good to fair in the pastoral and agro-pastoral livelihood zones.
- This is attributed to fairly adequate availability of feed thereby providing a favourable environment for livestock production.
- The livestock body condition is expected to have slight deterioration at the peak or end of the dry spell.
- The current livestock body condition was better compared to a similar period in the long-term.

3.1.2 Livestock Diseases

- Lumpy Skin Disease and Foot and mouth diseases were reported in the pastoral livelihood zone majorly in Garbatulla sub-county.
- Endemic livestock diseases reported were CCPP and PPR in Garbatulla, Kinna and Oldonyiro wards.

3.1.3 Milk Production

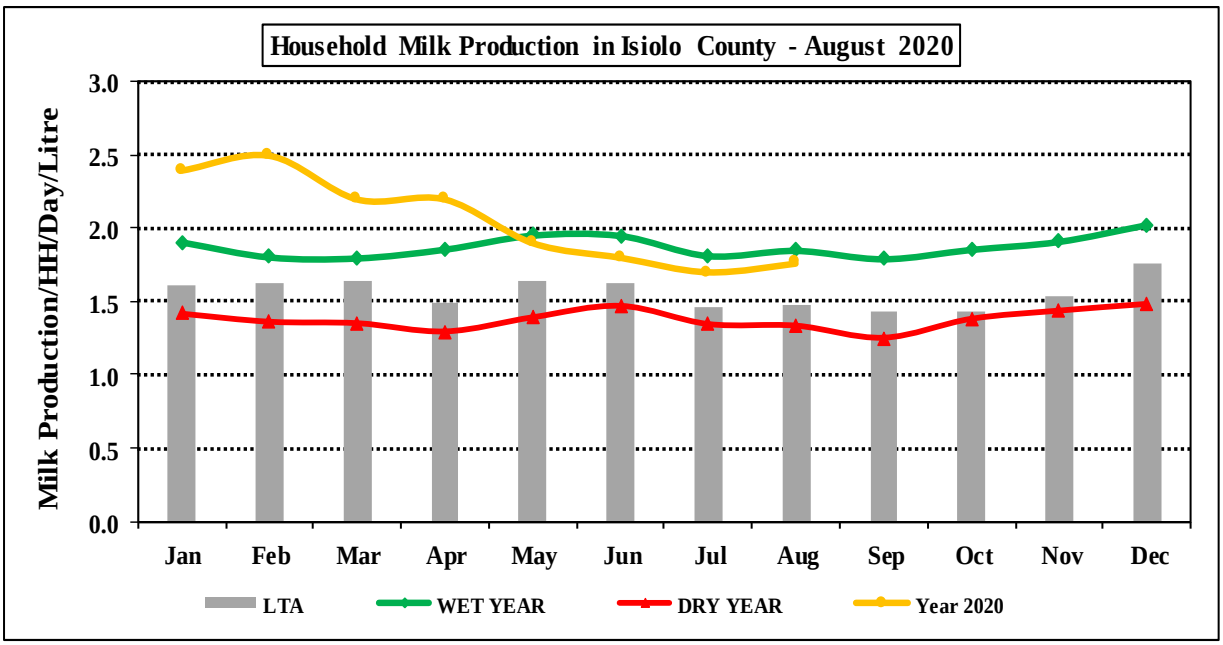


Figure 6: A graph of average milk production in litres

- Milk produced in milking households recorded a stabilized at 1.76 litres in the month under review.
- The stability experienced in the pastoral and agro-pastoral livelihood zones could be attributed to increasing watering distances, deteriorating quality and quantity of forage as the prevailing dry weather conditions persist.
- A greater proportion of milk produced was from Kinna and Garbatulla wards where camel population is higher compared to other areas.
- The amount produced is expected to decrease in the following month as the quality of pasture and browse declines following onset of long dry spell conditions.

3.2 RAIN-FED CROP PRODUCTION

3.2.1 Stage and Condition of Food Crops

- There were no crops under rainfed in the farms being the third month in the dry season.
- However, small scale irrigation went on along the rivers which are still flowing with water.
- Crops grown are fruits, vegetables, maize, onions and tomatoes.

4.0 MARKET PERFORMANCE

4.1 Livestock Marketing

Cattle Prices

- Average cattle price increased significantly to Ksh.27,700 in August from Ksh 26,700 in July
- The price increase could be partly attributed to good body condition as well as the lifting of travel restrictions and re-opening of all livestock markets, hence triggering more demand for cattle in the county and country at large.
- The easing of travel and social restrictions for control Covid-19 transmission has slightly increased red meat demand in the country as livelihoods take a recovery trend.
- The highest average price was recorded in Isiolo town market at Ksh 31,000 while the least was Ksh.25,300 in Oldonyiro market.
- The period's price was however 28 percent higher than the long-term average of Ksh.21,600.

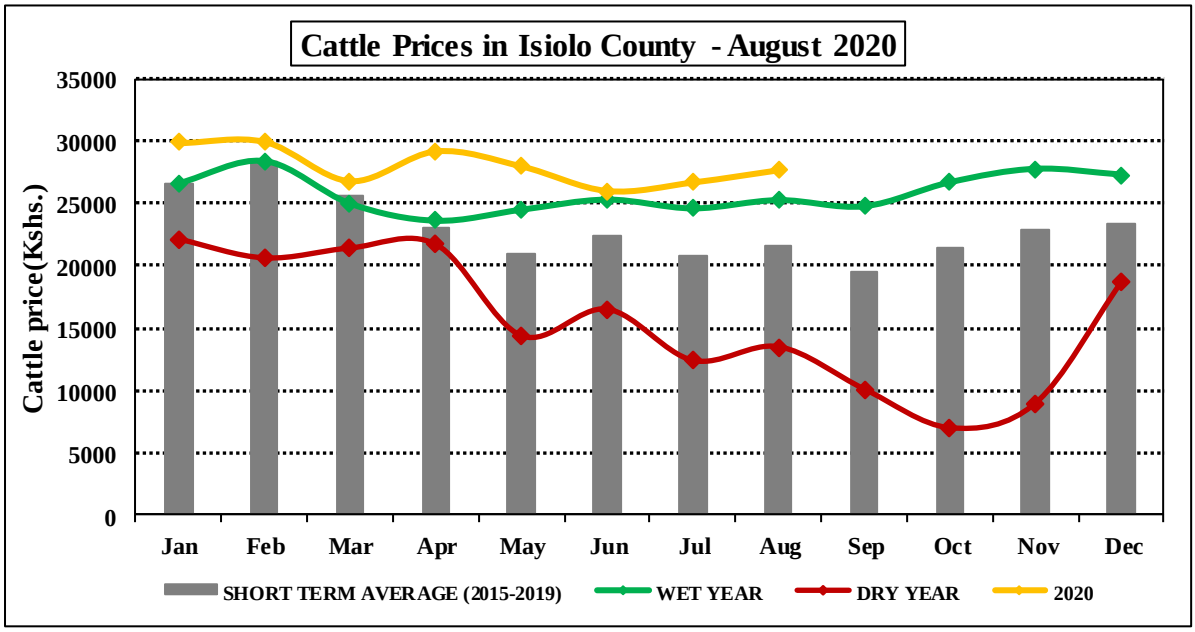


Figure 7: A graph of average market price of cattle

Small Ruminants Prices (Goat)

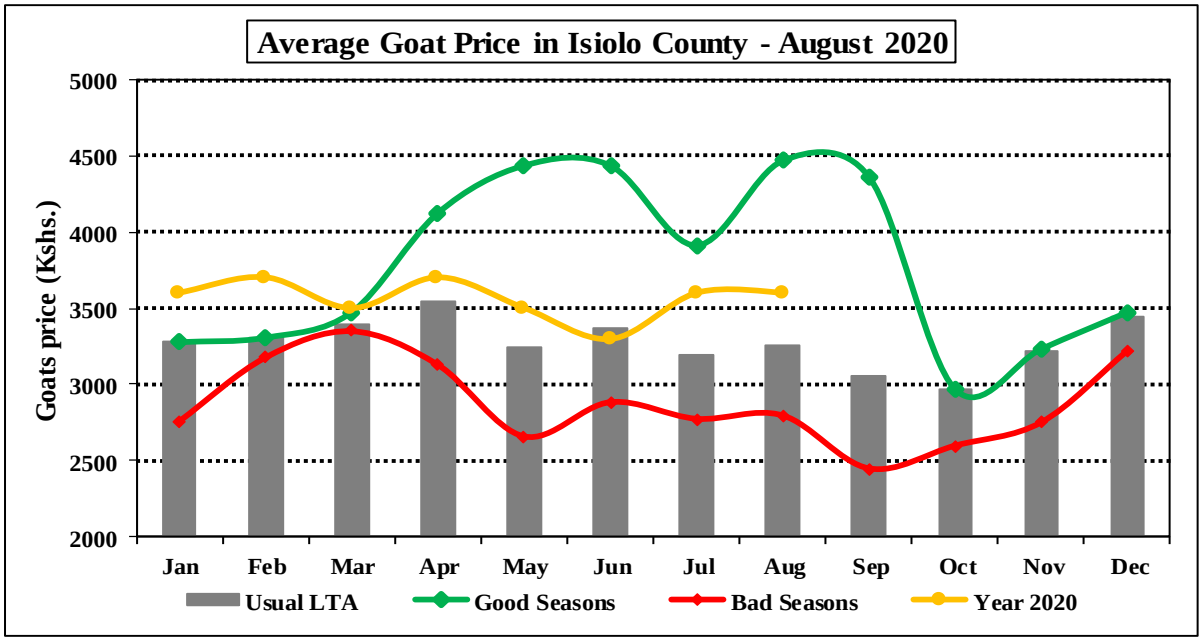


Figure 8: Monthly average market price of goats

- Average goat price stabilized at Ksh.3,600 in the month under review.
- Price stability recorded could be attributed to significant demand for goat meat in the local and external markets. The lifting of travel restrictions and re-opening of markets has also boosted the livestock markets.
- There is a high likelihood of a slight price decline as small stock body condition deteriorates due to the ongoing dry spell.
- The least and highest market prices recorded were Ksh.3,400 and Ksh.4,000 in Charri and Isiolo town markets respectively.
- Average goat price for the period was 10 percent lower than the long-tern average of Ksh.3,260 during the same period of the year.

4.2 CROP PRICES

Maize

- The market price of a kilogram of maize stabilized at Ksh.51 in the month under review.
- The price stability was attributed to a stable supply of cereals from local production and other counties where there were good harvests.
- Price is expected to have significant price increments towards end of the year when supplies are expected to decline as stocks go down.
- Cereals lowest price was Ksh.40 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 five percent lower than the long-term average of Ksh.55 at a similar period of the year.

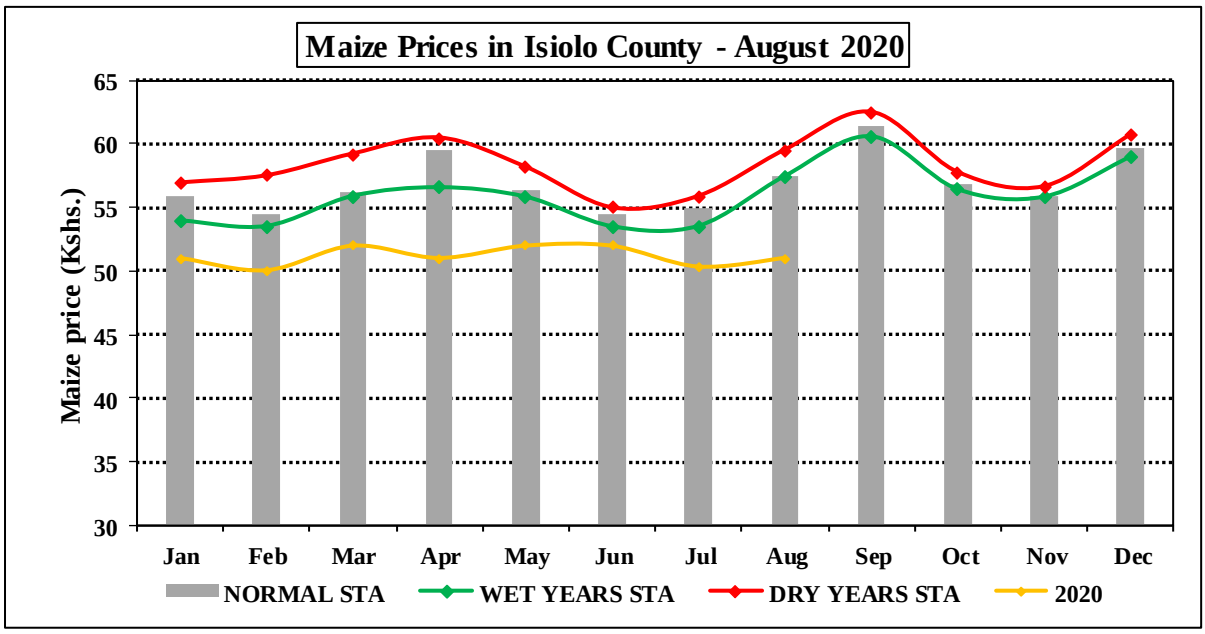


Figure 9: A graph of average maize (cereal) market price in the county

Beans

- Average price of beans increased slightly to Ksh.108.30 in the month under review from Ksh.106 in the previous month.
- The pulse's price slight increased was attributed to slight decrease in stocks hence affecting supply to local markets from neigbouring counties. Moreover, there has been a relative stabilization of demand of food commodities as purchasing power of most households improved after re-opening of livestock marketing operations.
- The price is expected to increase significantly towards the end of the year as supplies decline.

- The highest price was recorded in Merti market, Merti sub-county 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 seven percent lower than the long-term average price of Ksh.115 during a similar period of the year.

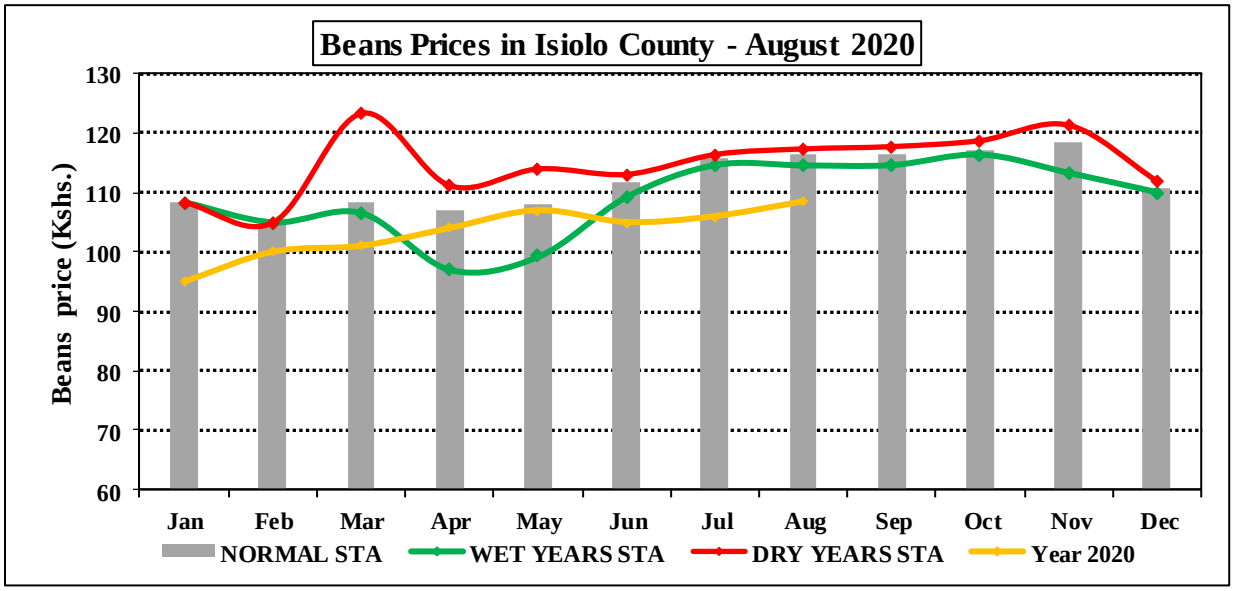


Figure 10: A graph showing average market price for pulses (beans)

4.3 Livestock Price Ratio/Terms of Trade

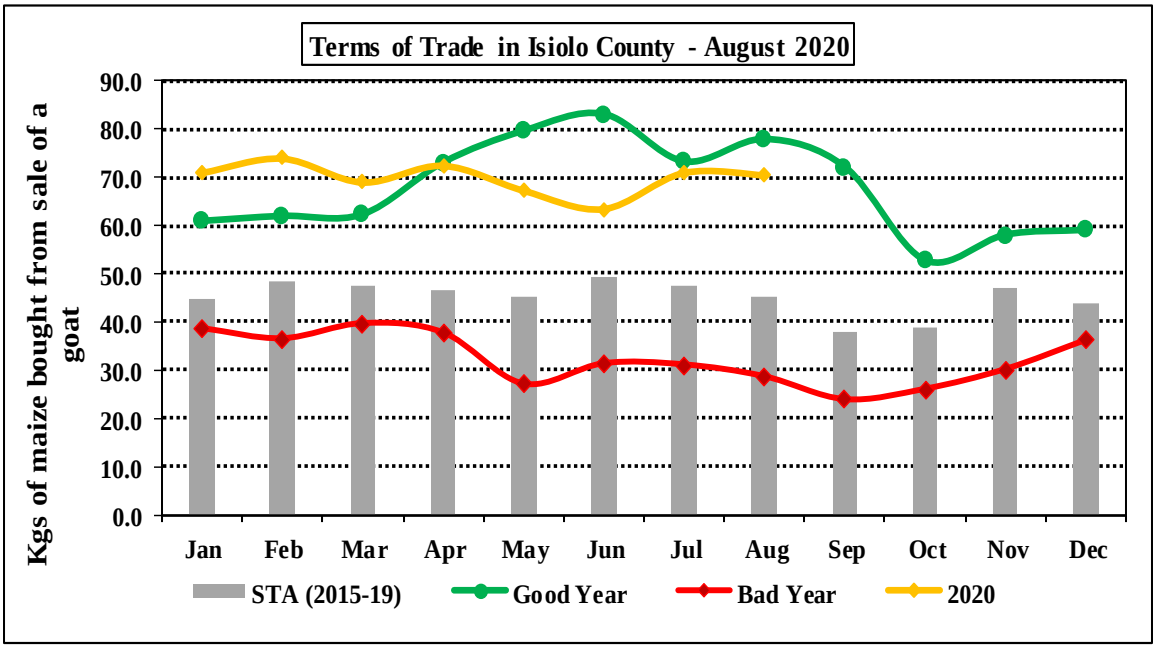


Figure 11: A graph showing the typical pastoralist households Terms of Trade in the county

- Terms of Trade (the number of kilograms of maize a pastoralist would purchase after a sale of one goat) stabilized at 70kg/goat in the period under review from 64kg/goat in the previous month.
- The ratio was 55 percent higher than the long-term average of 45.4 at a similar period of time in a year.
- The recorded increase in the ratio reflecting the household purchasing power could be attributed to the temporary stability in livestock markets after re-opening of livestock markets.

5.0 FOOD CONSUMPTION AND NUTRITION STATUS

5.1 Milk Consumption

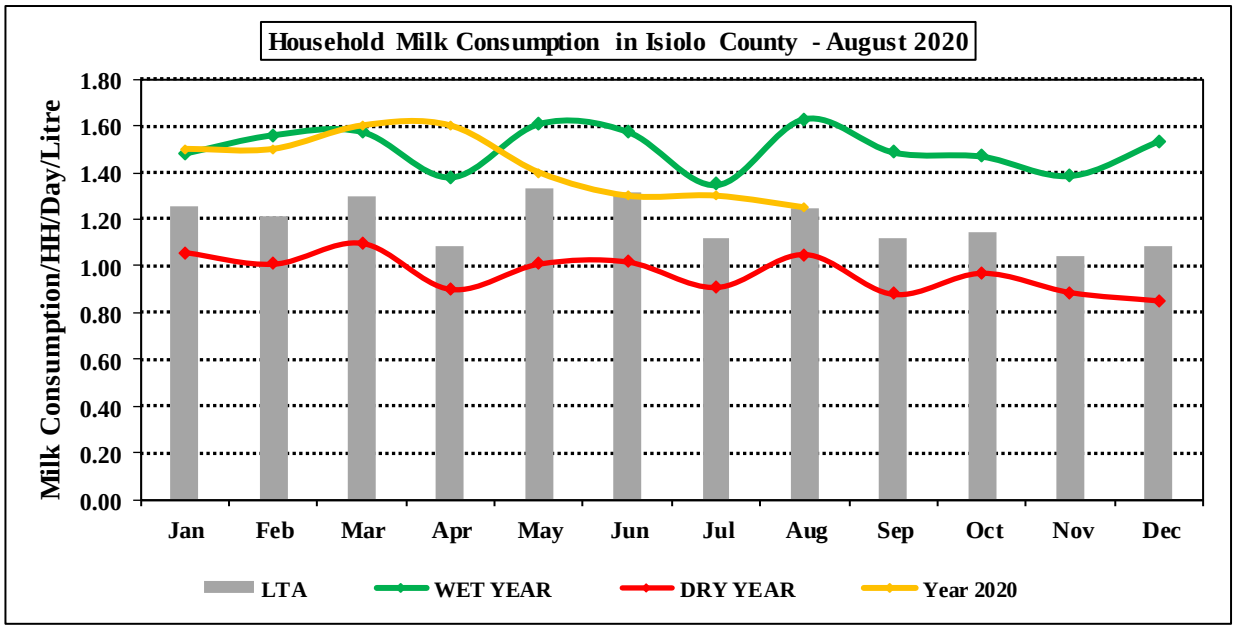


Figure 12: Average milk consumption in litres

- Average milk consumption per household stabilized at 1.25 litres in the month under review.
- The low amount of fresh milk consumed at the household level was attributed to the recorded reduction in the amount produced.
- Average consumption was almost equal to 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 labour/employment livelihood zones.

5.2 FOOD CONSUMPTION SCORE

- Patterns of household food consumption stabilized as shown in Figure 13 where 74 percent of households had acceptable food consumption as opposed to six percent and 20 percent who had poor and borderline food consumption respectively.

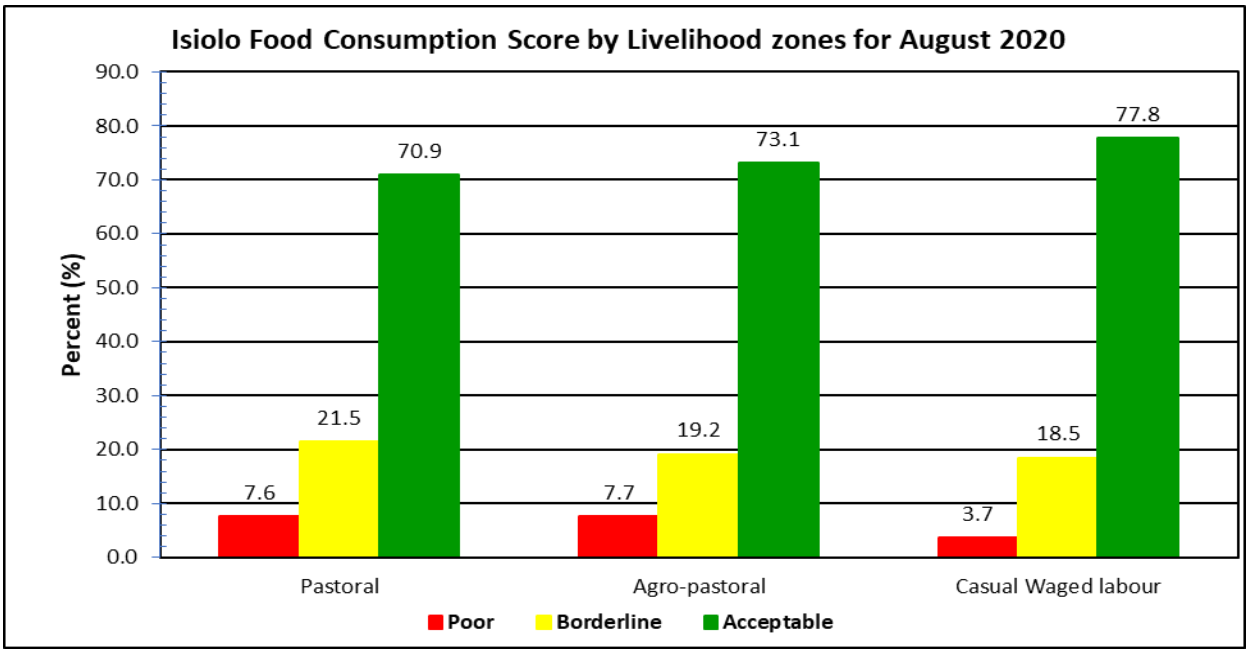


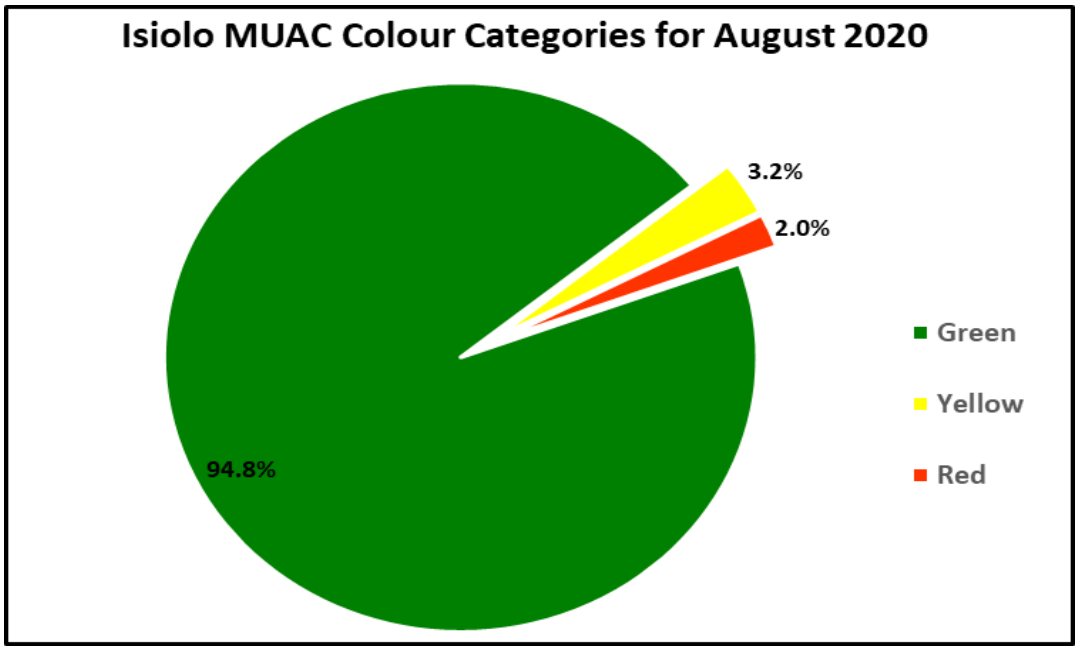
Figure 13: A graph showing the overall households' food consumption score

- The proportion of households with acceptable food consumption was stable during the month under review.
- Though food consumption was good in the pastoral livelihood zone, the dietary diversity was considerably poor, a scenario that is blamed on poor availability of diverse food types in rural markets.
- Food consumption patterns are expected to deteriorate slightly as the long dry spell sets continues and impacts of Covid-19 negatively on households purchasing power.
- "*A poor score implies households consumed staples and vegetables every day and rarely consumed protein rich food while borderline FCS imply that households consumed staples and vegetables every day accompanied by oil and pulses a few times in a week while the acceptable imply that households are consuming staples, vegetables every day, and frequently accompanied by pulses and some meat and milk*".

5.3 HEALTH AND NUTRITION STATUS

5.3.1 Nutrition Status

- In the month of August, 3.2% of children were moderately malnourished with only 2.0% severely malnourished.



- The prevailing rate of Global Acute Malnutrition based on Weight-for-Height (standardized scores) was 16.7 percent (SMART Survey 2020).
- The prevailing rate of children at risk of malnutrition is attributed to poor young children nutrition among pastoral households as well as high prevalence of endemic diseases such as rising cases of intestinal worms, upper respiratory tract infections and diarrheal ailments among the under-fives.
- However, routine screening of children by health service providers has suffered a blow due to fear of contracting the novel coronavirus disease and authorities cannot substantiate the malnutrition trends.

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 acute respiratory tract infections, pneumonia, diarrheal, intestinal worms and skin disease.

5.4 COPING STRATEGIES

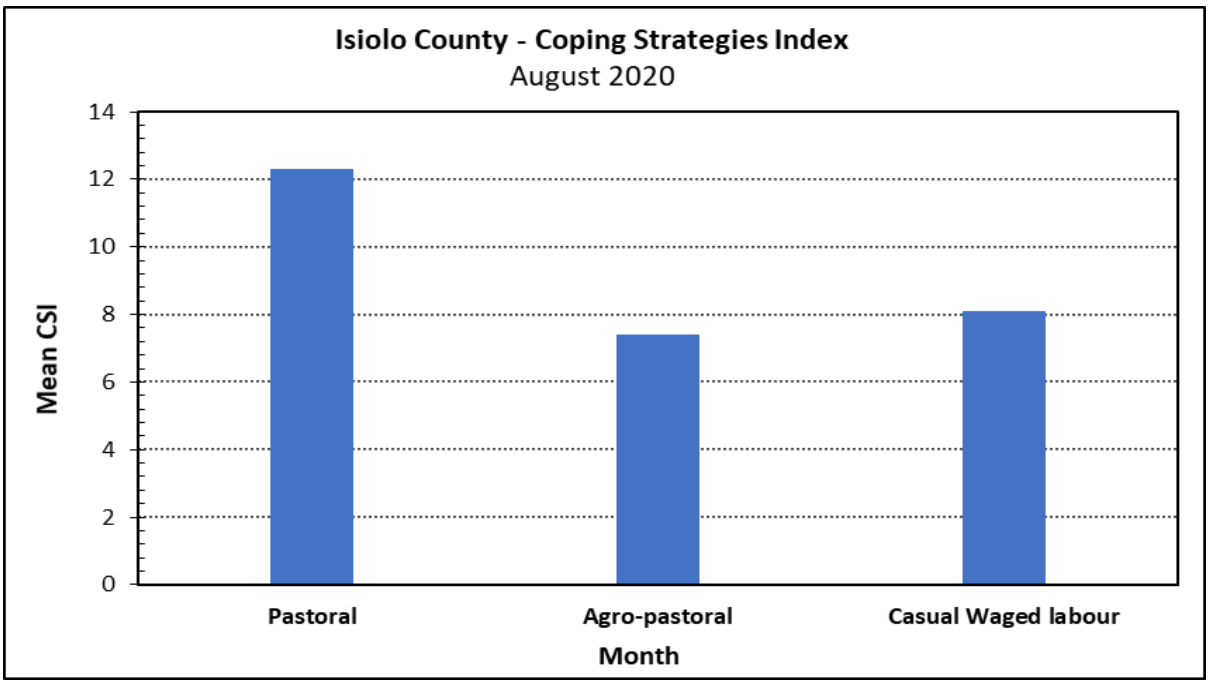


Figure 14: A graph showing the monthly reduced Coping Strategies Index

- Coping Strategy Index (CSI) increased marginally to 11.1 during the month under review from 10.7 in the previous month.
- The marginal increment could be attributed to the easing of travel and marketing restrictions during the month under review. However, households continued to employ quite a number of food and livelihood based coping strategies attributed to hardships brought by livelihood hardships occasioned by impacts of Covid-19 and partially due to ongoing dry spell.
- 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.

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
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	Burat	Isiolo North	World Vision	150HH
Provision of water purifiers	Iresaboru	Isiolo South	County government and partners	132,000 pieces
Provision of reusable facemask to livestock market actors	Oldonyiro,Eskot,Ngaemara,Isiolo,Duse and Merti	Isiolo North and Isiolo South	Livestock Market Systems(LMS)	12,600 face masks
Livestock disease surveillance	All wards	All sub county	RPLRP and VSF SUISSE	All wards
Drilling of Boreholes	Biliqo Marara and Merti town	Isiolo North	Isiolo County Government	Two Boreholes
Rehabilitation of Manyata Zebra and Yamicha Borehole	Ngaremara and Cherab	Isiolo North	Isiolo County Government	Two Borehole
Rehabilitation of Parkuruk water pan	Oldonyiro	Isiolo North	Isiolo County Government	One pan

6.2 FOOD AID

Table 2: A table showing the food interventions ongoing in the county

Type of Intervention	Ward	Sub-county	Implementer	Target/ Amount
Relief food distribution to vulnerable HHS	All wards	Garbatulla, Merti and Isiolo	National Government	2,500 Bags of (50kg) of rice 600 Bags of (50kg) of Beans 60 Cartons of edible oil 20 Bales of Nutri-Pap

7. EMERGING ISSUES

7.1 Insecurity/Conflict/Human Displacement

- The county didn't have any incident of insecurity or conflict during the period under review.

7.2 Migration

- There were internal movements of herders deeper into traditional grazing and dry season grazing reserves within the county as forage depletes steadily.
- Internal migration of especially small stocks from Dogogicha to Kuro Bisan Owo hot spring was reported where the water has some elements of minerals which is important for animal health and nutrition.
- There was out-migration of herders from parts of Oldonyiro ward to Laikipia ranches in search of pasture and browse where more than 75% of herds have migrated.

7.3 FOOD SECURITY PROGNOSIS

- The level of food security in the county is good mainly attributed to the cumulative impact of the above normal performance of the OND 2019 short rains season which was followed by a below normal long rains season.
- Livestock production contributed a greater proportion of the food available in all the livelihood zones including the casual-waged labor zone. However, milk production has been declining steadily and the trend is expected to worsen until the second month of the short rains season.
- Crop production in farms under rainfed systems performed poorly during the long rains season with insignificant positive impact on availability of food. However, there will be relatively good food availability in the county due to supplies from neighboring counties where food production was normal following good performance of rains. On the other hand, supply of fresh farm produce including vegetables and fruits from small-scale irrigated farms has been consistent and thereby boosting food availability to the local markets.
- The ease of travel restrictions together with reopening of livestock markets has enabled pastoral livelihoods regain some viability though low to moderate when compared to pre-Covid-19 times. However, the further easing of restrictions is expected to revive market systems both for livestock and food commodities. Household access to food commodities from the markets was normal in a population largely dependent on them to access and meet most of their food requirements.
- Food consumption was essentially good in all livelihoods with slightly over 70 percent of households having acceptable food consumption. Food availability is expected to have a marginal decline as the dry spell progresses. This is likely to affect consumption in all the livelihood zones.
- Food utilization was greatly enhanced by the relatively stable availability of water in all livelihood zones. However, water availability is expected to decline steadily as temporary sources dry and lead to increased distances to water sources as the dry spell progresses.
- There was minimal competition over rangeland resources as majority of the grazing areas have fairly amounts of available feed stocks though on a declining trend as the long dry spell continues.
- The overall food security situation remains in the stressed phase (IPC 2) and on a declining trend.

8. RECOMMENDATIONS

- Encourage destocking by sensitizing farmers who own cattle, sheep and goat to do voluntary commercial off-take while the livestock are still in good body condition to ease pressure on available forage resources.
- Engage and support grazing committees to enable them come up with appropriate community's grazing patterns so as to ensure the diminishing forage resources are sustainably utilized and prevent or minimize resource-based conflicts.
- Initiate cash transfer programs to caution vulnerable households against impacts of the livelihood losses following the nationwide imposition of restrictions aimed at controlling the spread of coronavirus disease (COVID-19). This will protect loss of lives.
- Sensitize the community on the safety precaution measures against coronavirus disease (COVID-19).
- Sensitize caregivers at the family 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 all possible disease pandemics.
- Promotion of hygiene and sanitation practices especially the Community Led Total Sanitation (CLTS).