

**National Drought Management Authority**  
**ISILO COUNTY**  
**DROUGHT EARLY WARNING BULLETIN FOR APRIL 2019**



A Vision 2030 Flagship Project



**April 2019 EW Phase**

**Alert: Maandalizi ya Mapema**



**Early Warning Phase Classification**

Livelihood Zone	EW PHASE	TRENDS
Pastoral-All Species	Alert	Worsening
Agro-Pastoral	Alert	Worsening
Casual Waged Labour /Charcoal burning	Alert	Worsening
<b>County</b>	<b>Alert</b>	<b>Worsening</b>
Biophysical Indicators	Value	Normal Range/Value
Rainfall (% of Normal)	57.6 mm	<98.4mm
VCI-3month (Isiolo)	21	Below normal
Water Sources	3	5
Production Indicators	Value	Normal
Livestock Body Condition	Fair	Fair to Good
Milk Production	1.0 Litres	>1.8 Litres
Livestock deaths (from drought)	No deaths	No death
Livestock Migration Pattern	Out migrations	Normal
Access Indicators	Value	Normal
Terms of Trade (ToT)	62	>61
Milk Consumption	0.80 Litres	<1.26 Litres
Return distance to water households	4.2 km	<3.1 km
Cost of water at source (20 litres)	Ksh 4.00	<Ksh. 5.00
Utilization indicators	Value	Range/Value
MUAC	10.8 percent	<19.7 percent
Coping Strategy Index (CSI)	9.10	>13.5
Food Consumption	63.3 Percent Acceptable	>71 Percent Acceptable

**Drought Situation & EW Phase Classification**

**Biophysical Indicators**

- The month of April was marked by hot weather mixed with long intervals of sunshine with moderate showers being received in the last week of the month under review.
- The 3-Month Vegetation Condition worsened slightly but maintained a moderate vegetation condition.
- Pasture and browse availability and condition worsened now at a fair to poor condition deteriorating steadily.
- Water availability in all sources ranged from fair to poor and on a deteriorating trend in the pastoral and agro-pastoral livelihood zones.

**Socio Economic Indicators (Impact Indicators)**

**Production Indicators**

- Livestock body condition of small stock and cattle deteriorated good to fair in all livelihood zones.
- Milk production reduced significantly over the period majorly in the pastoral livelihood zone.
- Planting season began after the showers though the real onset in many parts of the county is yet to occur. Small-scale irrigation was downscaled further due to low water levels in rivers leading to continuous rationing.

**Access Indicators**

- Livestock and food prices stabilized over the period under review.
- Household milk consumption reduced significantly over the period under review.

**Utilization Indicators**

- Malnutrition levels among children under five year's increased slightly during the period.

**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

- The weather pattern was characterized by long sunny intervals with high day time temperature in the first half of the month. The last half of the month had some rains experienced in various parts of the county with more being received in Isiolo Central.
- The rains received marked onset of the long rains season where slightly more than half of the county experienced rains of varying intensity.
- The rains were poorly distributed temporarily and spatially across the county.

## 1.2 AMOUNT OF RAINFALL AND SPATIAL DISTRIBUTION

- The county received rains of an average amount of 57.6mm mainly in the last week of the month under review.
- The amount received was 42 percent lower than the long-term average of 98.4mm, giving an implication of a below normal performance.
- The rains were poorly distributed both temporarily and spatially as there are wards such as Cherab and Charri that received less than 2.0mm of rainfall while another section, Sericho received moderate downpour of 80.6mm in one day.
- Isiolo central, Kinna and Garbatulla wards experienced a total of five, four and three rainy days respectively. Sericho, and Oldonyiro wards each experienced one and two rainy days respectively. Charri and Cherab received light showers.

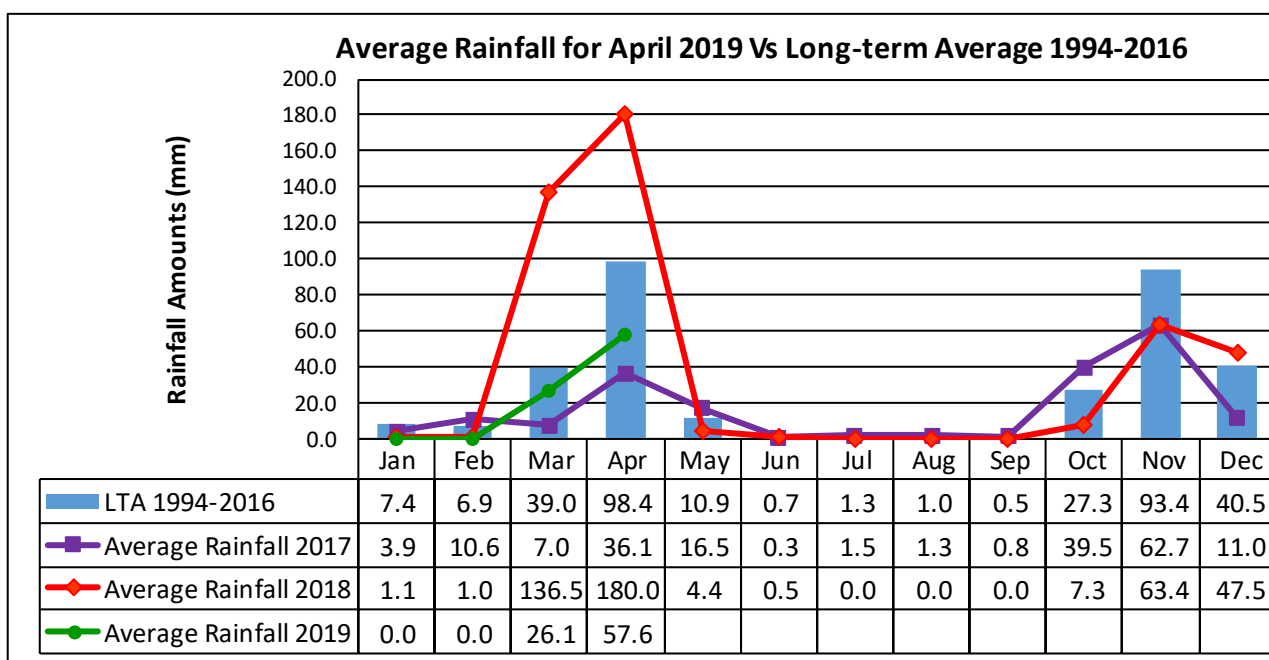


Figure 1: A graph showing monthly rainfall data for Isiolo County

## 2.0 IMPACTS ON VEGETATION AND WATER

### 2.1 VEGETATION CONDITION

#### 2.1.1 Vegetation Condition Index (VCI)

- The matrix below illustrates April 2019 Vegetation Condition Index, classified as agricultural drought based on VCI thresholds. The matrix shows a retrospective analysis of the vegetation condition as related to drought.

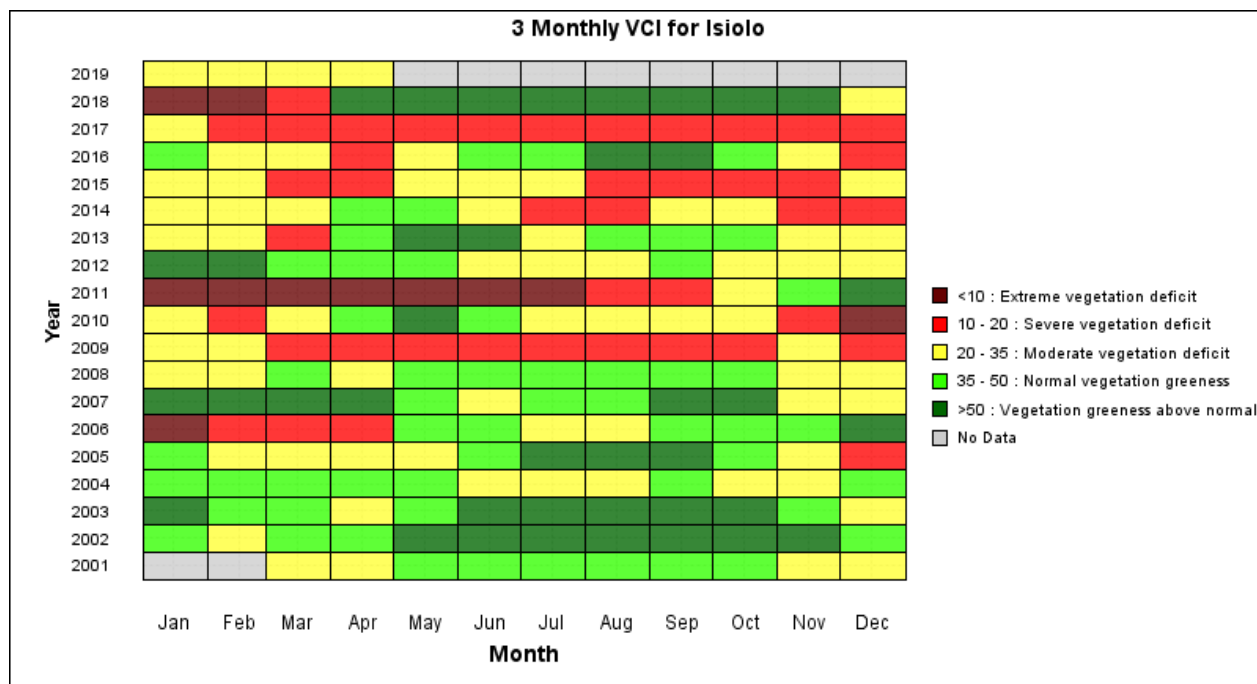


Figure 2: A matrix of 3-Monthly Vegetation Condition Index

- County vegetation condition stabilized for the fourth month in a row with the month's index of 21.4 which indicates that the county remained in a moderate vegetation deficit.
- The moderate vegetation deficit state was attributed to the prolonged dry spell as the rains season delayed further. There was also poor regeneration of vegetation following the poorly performed 2018 short rains season.
- The moderate vegetation deficit recorded was confirmed with the poor level of vegetation greenness across the county.
- Stability of the threshold is an indication of insignificant changes in the vegetation for a considerable period of time when compared to the long-term trend of vegetation condition in a similar period.

#### 2.1.2 Pasture

- The condition of pasture in the pastoral and agro-pastoral livelihood zone ranged from fair to poor but the trend is expected to be reversed in several parts where rains were received in the last week of the month under review.
- The quantity and quality of pasture was below normal in a greater proportion of the county's grazing fields.
- There was a high level depletion of pasture in several parts of the pastoral livelihood zone a factor that was attributed by entry of herders from several parts of the county into the dry grazing areas during the period under review.
- Onset of the long rains in the last week of the month under review is expected to trigger pasture regeneration both in the traditional and dry grazing reserves.

#### 2.1.3 Browse

- Browse in the agro-pastoral and pastoral livelihood zones ranged from fair to poor due to prolonged dry spell
- Deterioration of browse in the pastoral livelihood zone was caused by severe shedding of leaves in deciduous and acacia tree species.

- There was a significant shortage of browse in several parts of the county including Oldonyiro Garbatulla, Sericho, Charri and Cherab wards leading to more shortage when compared to a similar period in the long-term period.
- Browse is expected to regenerate in all parts of the county except Charri and Cherab where no rains have been received yet.

### 2.2.1 Sources

- Main water sources during the better part of the month were boreholes, shallow wells and traditional river wells.
- Majority of settlements in the county accessed water from piped water sourced from boreholes and rivers. Water availability and access for households was poor in several pastoral livelihood zone settlements with long queues and long waiting periods reported in distribution points.
- Reliance on boreholes was high as majority of open surface sources including rivers, traditional river wells and shallow wells dried up.

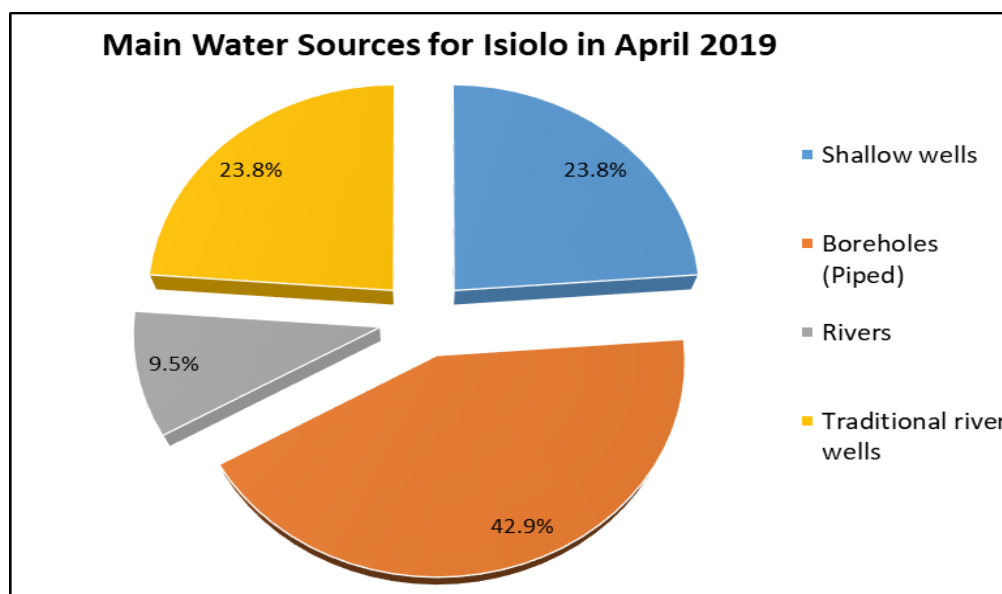
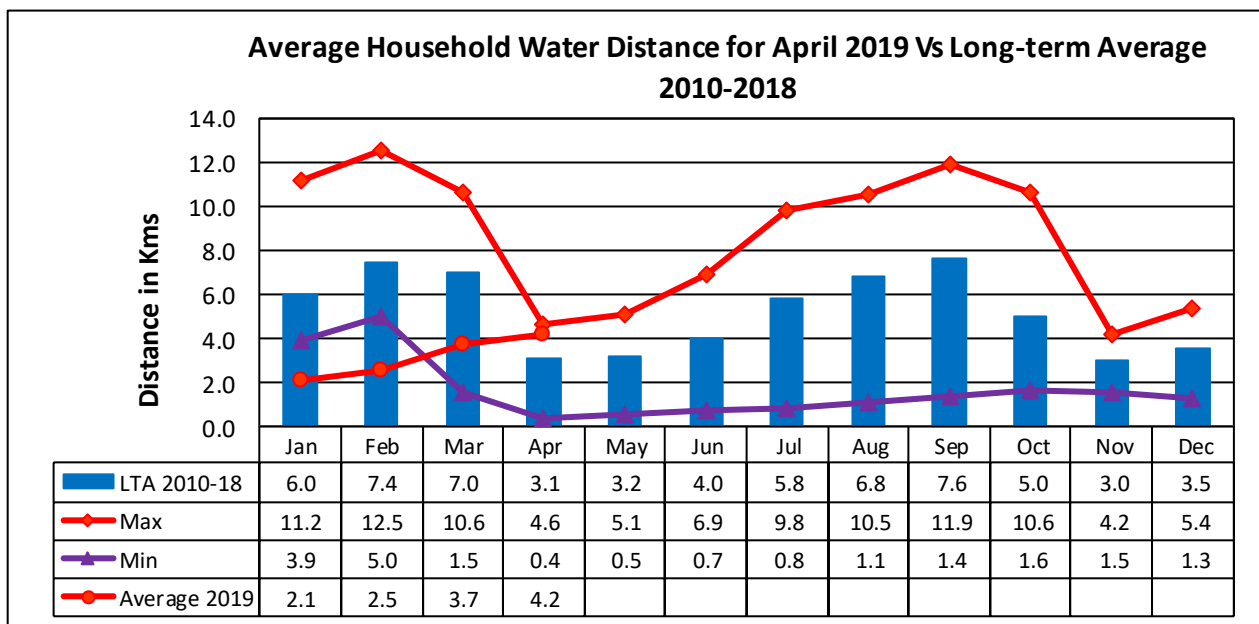


Figure 3: A chart of main water sources in the county

### 2.2.2 Household access and Utilization

- Household water access distance to main sources increased to an average of 4.2km over the period under review from 3.7 km in the previous month.
- The increase defied the normal trend at this time of the year when distance to water sources reduce significantly due to pounding rains. This time round there was an increase that was mainly attributed to drying up of more temporary water sources as a result of the prolonged dry spell leading to depletion of most semi-permanent sources such as rivers, sand dams, traditional river wells and shallow wells.
- A bigger proportion of household obtained water from taps at kiosks and homestead pipes sourcing water from rivers and boreholes while some especially in Cherab benefited from water trucking.
- The cost of water from piped distribution points (*kiosks*) was Ksh. 2.00 per 20 litre jerrican. There were however few areas in the pastoral livelihood zone where households purchased a 20 litre jerrican at an average of Ksh. 25.00.
- Waiting time had increased marginally in the pastoral livelihood zone to a range 20 to 50 minutes in the pastoral livelihood zone with exception of a few settlements and the entire casual/waged labour livelihood zone where households waited for less than 10 minutes.



- The average water distance in the agro-pastoral and pastoral livelihood zones was 2.7km and 8.0km respectively. The lowest average distance of about 0.5km was recorded in the casual-waged labour livelihood zone.
- Availability of water is expected to improve in many parts of the county after onset of the short rains where some rivers such as Rivers Ewaso Nyiro, Bisanadi and others have partially recharged.

### 2.2.3 Livestock access

- Average distance to water sources from grazing areas increased significantly to 14.5km over the period under review from 12.7km in the previous month.
- Similar to the household water access, livestock were forced to trek for more kilometers unlike the normal trend where April records the least distance, being a period of optimum rainfall in the long rains season.

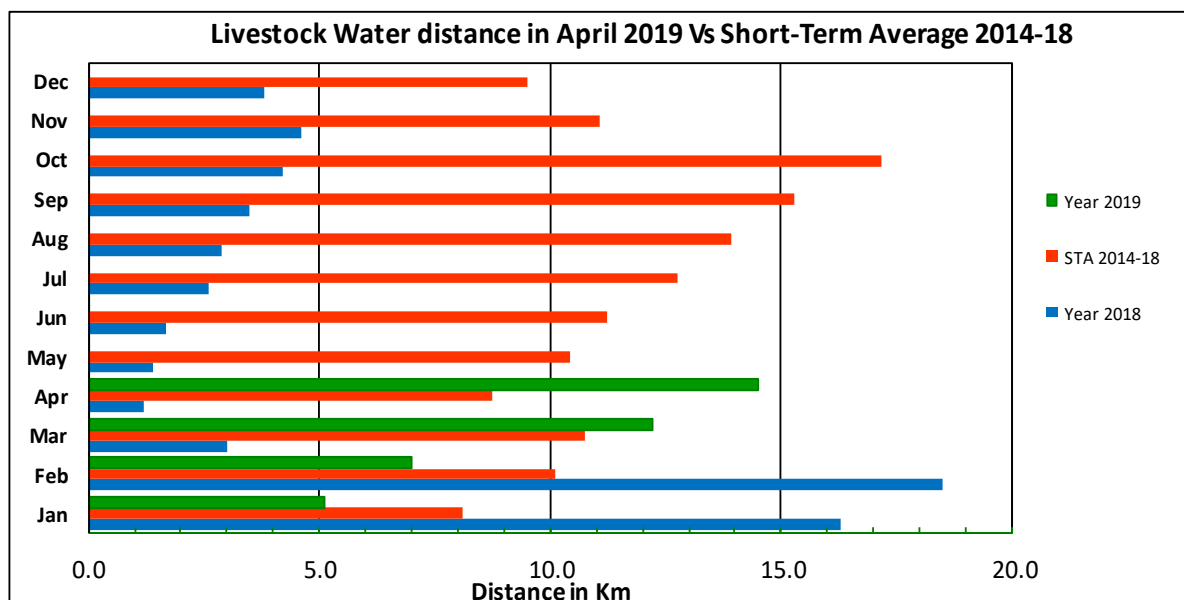


Figure 4: A graph of average distance for livestock water access

- The increase was attributed to the progressive depletion of water from open surface sources following a prolonged dry spell and continued deterioration of forage.

- The average distance to water sources is expected to decrease in the following month following onset of the long rains season late in the month under review.
- Livestock watering interval was normal where goats and cattle were watered after an average of two days. Camels were watered after an interval of 8 to 12 days.

### **2.3 IMPLICATION TO FOOD SECURITY**

- The prolonged dry spell period accelerated the rate of depletion of range resources, that is, water and forage, a factor that contributed entry of herders into the county's dry season grazing areas. Long distances to water points and poor quality and quantities of pasture threatened animal health whereas depletion of water in rivers slowed down crop production to some extent.
- However, the onset of long rains in several parts of the county, though late than expected, will influence a constructive moment for farmers, both animal and crop producers.
- Good recharge of rivers will revive crop production at the small-scale irrigation schemes in the agro-pastoral livelihood zones across the county. This will improve the amount of food supplies to the market and thereby push the price of fresh produce down.
- If the rains continue into the following month, there is a high likelihood of herders getting back to their traditional grazing areas and therefore reduce pressure on dry season grazing reserves' range resources.
- This move will have a significant decrease in trekking distances to grazing areas as forage gradually regenerates.

### 3.0 PRODUCTION INDICATORS

#### 3.1 LIVESTOCK PRODUCTION

##### 3.1.1 Livestock Body Condition

- Body condition for all livestock species ranged from fair to good though on a gradual worsening trend in all the livelihood zones.
- All livestock species were in a better body condition as compared to the same time in the previous year.
- The animals’ body condition weakened considerably following the prolonged dry spell which hastened the deterioration of forage and water resources. This led to a substantial increment in distances to water and pasture especially in the pastoral livelihood zones.
- Livestock production could be at a better position of recovery should the rains whose onset was experienced in the last week of the month under review perform well into the month of May.

##### 3.1.2 Livestock Diseases

- No notifiable livestock diseases were reported during the month under review.

##### 3.1.3 Milk Production

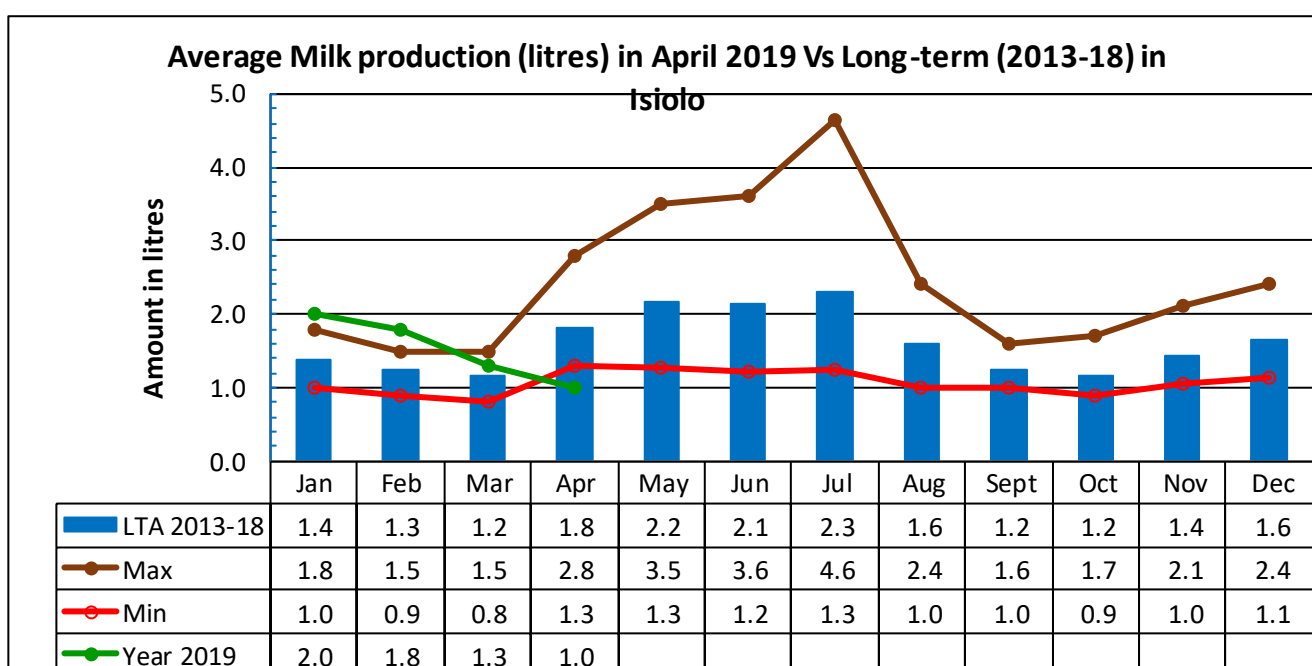


Figure 5: A graph of average milk production in litres

- Milk production in milking households decreased significantly to an average of about 1.00 litre per household in the previous when compared to the previous months amount of 1.3 litres.
- The reduction in milk production produced was partially attributed to the prolonged dry spell eventually leading to a decline in animal body condition.
- Milk production for the period under review remained favourable when compared to the long-term average and the previous year due to better availability of pasture in addition to the increased calving rate among the cattle species in the pastoral livelihood zone.
- Milk was mainly obtained from camels and cattle. Production is expected to increase in the month of May should long rains perform well to cause a plentiful availability of pasture and browse.
- Milk production per household was 44 per cent lower than the short average amount of 1.8 litres.

### 3.2 RAIN-FED CROP PRODUCTION

#### 3.2.1 Stage and Condition of food Crops

- Planting of food crops under rain fed began afresh following withering of the ones planted in the end of March when some rains bearing a false onset were received. There was minimal preparation of land in anticipation of rains after predictions of seasonal failure by meteorological

department readiness for the planting season ahead of the onset of the long rains, in April as given in meteorological forecasts.

- The showers received at the end of the month under review marked the beginning of a second planting chance for farmers with faded hopes of a fruitful season.
- Farmers in the agro-pastoral livelihood zone mainly in Burat ward, replanted beans, green grams, and maize. Vegetable crops planted under small-scale irrigation included onions, tomatoes, and kales.

### **3.3 IMPLICATION OF THE ABOVE INDICATORS TO FOOD SECURITY**

- The state of livestock body condition ranged from fair to good though on a worsening trend in all livelihood zones as an impact of the prolonged dry spell.
- There was a high expectation that onset of the long rains would be experienced in the month under review to no avail, threatening food security of crop producers and pastoralists.
- However, animal and crop production are expected to revamp after the late onset through will purely depend on the performance of the rains. Failure of the rains will imply that animals won't get enough forage and water a situation that will worsen the already weakening condition of all species except camels. This could lead to death of animals as well as decline on crop production, reduce food supplies and possible closure of livestock markets thereby accelerating current weak level of food security.
- On the other hand, good performance of the rains will result to a better availability of forage and water resources, crucial for boosting production in all livelihoods but mostly animal and crops. Improved production will strengthen the current level of food security to later in the year when the short rains season are expected.



## 4.0 MARKET PERFORMANCE

### 4.1 Livestock Marketing

#### 4.1.1 Cattle Prices

- Average household cattle price reduced slightly to Ksh 27,000 in the month under review from Ksh 27,500 in the previous month.
- The slight reduction could be partially attributed to weakening body conditions and attempts by traders to reduce price in an opportunistic move to take advantage of the impending drought characterized by the prolonged dry spell.
- The price however remained relatively high due to a sustained demand for cattle in local markets and neighboring counties. Supply of cattle to the market was low compared to a similar period in the previous year.
- The highest average price was recorded in the pastoral livelihood zone at Ksh.32, 000.00 in Kinna and the least was Ksh.23,000.00 in Oldonyiro market exhibiting a good level of stability.
- The period's price was 29 percent higher than the long-term average of Ksh. 19,000.00 mainly attributed to good animal body conditions and a relatively stable demand.

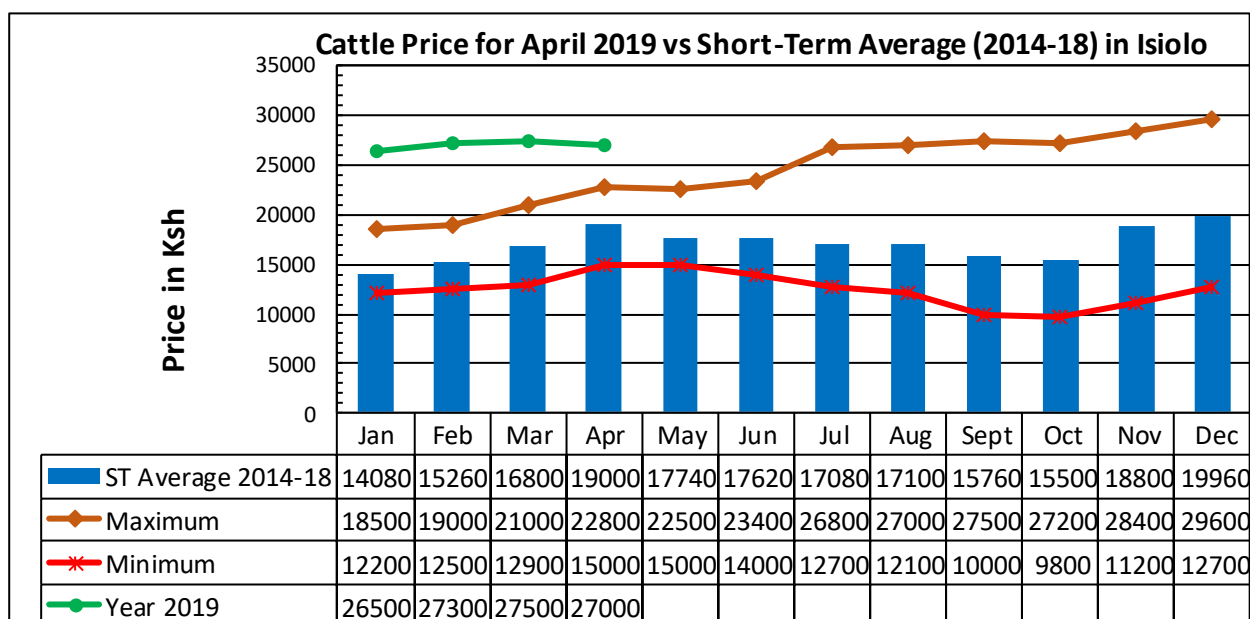


Figure 6: A graph of average farm-gate cattle price

#### 4.1.2 Small Ruminants Prices (Goat)

- Average goat price reduced slightly to Ksh.3,300.00 compared to the previous month's price of Ksh. 3,600.00.
- The slight reduction could be attributed to a declining body condition among the small stock as an effect of diminishing range resources in the pastoral and agro-pastoral livelihood zones.
- The least and highest farm-gate prices recorded were Ksh 2,300.00 and Ksh.4,200.00 in the pastoral livelihood zone.
- Average goat price was 10 percent higher than the short-term average of Ksh.3,000.00 and significantly lower than the period's maximum price of Ksh. 3,700.00.

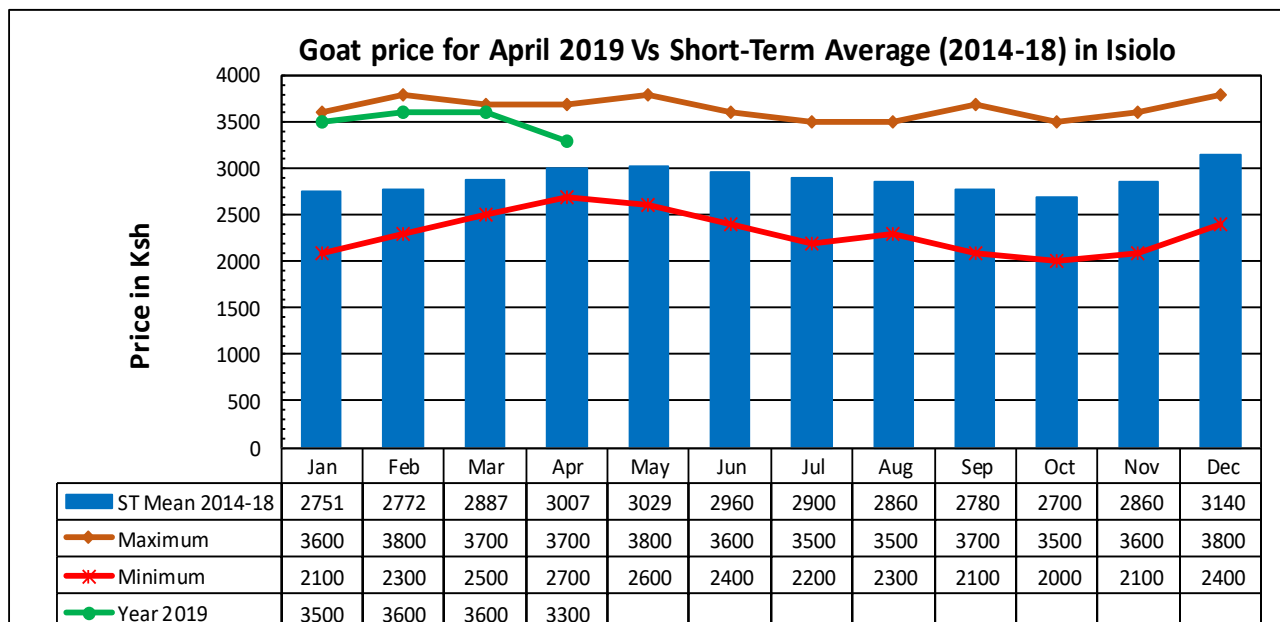


Figure 7: A graph of monthly average farm-gate goat price

## 4.2 CROP PRICES

### 4.2.1 Maize

- The market price for a kilogram of maize increased slightly to an average of Ksh 53.00 up from Ksh. 49.00 recorded in the previous month.
- The increment could be attributed to a slight decline in stocks of maize which led to a consequential decrease in the amounts supplied to the local markets.
- The cereals lowest price was Ksh. 40.00 in Isiolo town market and highest in Merti at Ksh.65.00. The cereal's prices in rural markets including Merti, Bisan Biliqo and Sericho was relatively high as supplies were not consistent attributed to long distances and community cereal preferences.
- However, in other markets the price of maize remained relatively low since February attributed to a stable supply of the cereal from the neighbouring counties.
- Average price of maize was normal for the period considering that it was only 23 percent higher than the three-year average of Ksh.43.00. It was relatively higher than the maximum price of Ksh. 60.00 ever recorded for the period.

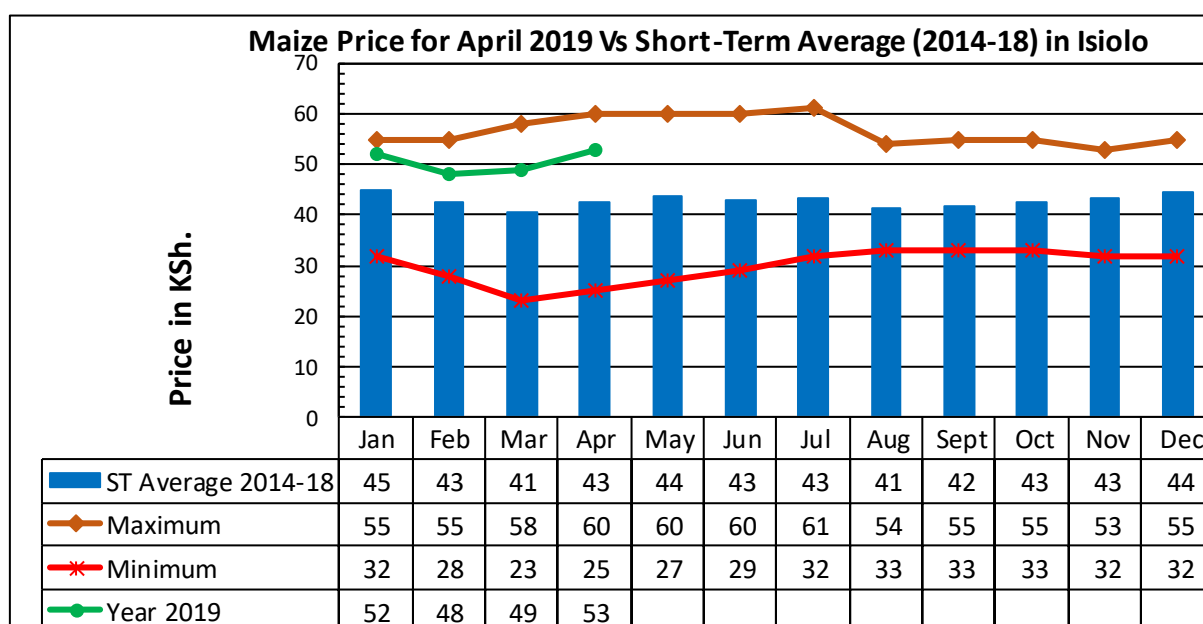


Figure 8: A graph of average maize (cereal) market price in the county

### 4.2.3 Beans

- The average price of beans increased to Ksh.100.00 in the month under review from Ksh. 95.00 in the previous month.
- The increase was attributed to diminishing stocks levels held by traders and households hence curtailing supply of the pulse into the rural and urban markets.
- The pulse's price is expected to increase further before the harvests associated with the long rains are realized in late June and July.
- The highest price was recorded in Merti market in the pastoral livelihood zone at an average of Ksh 120.00 while the lowest price was in Isiolo Cetnral and Kinna at Ksh. 90.00.
- The price was almost equal to the short-term average price of Ksh. 99.00 during a similar period of the year.

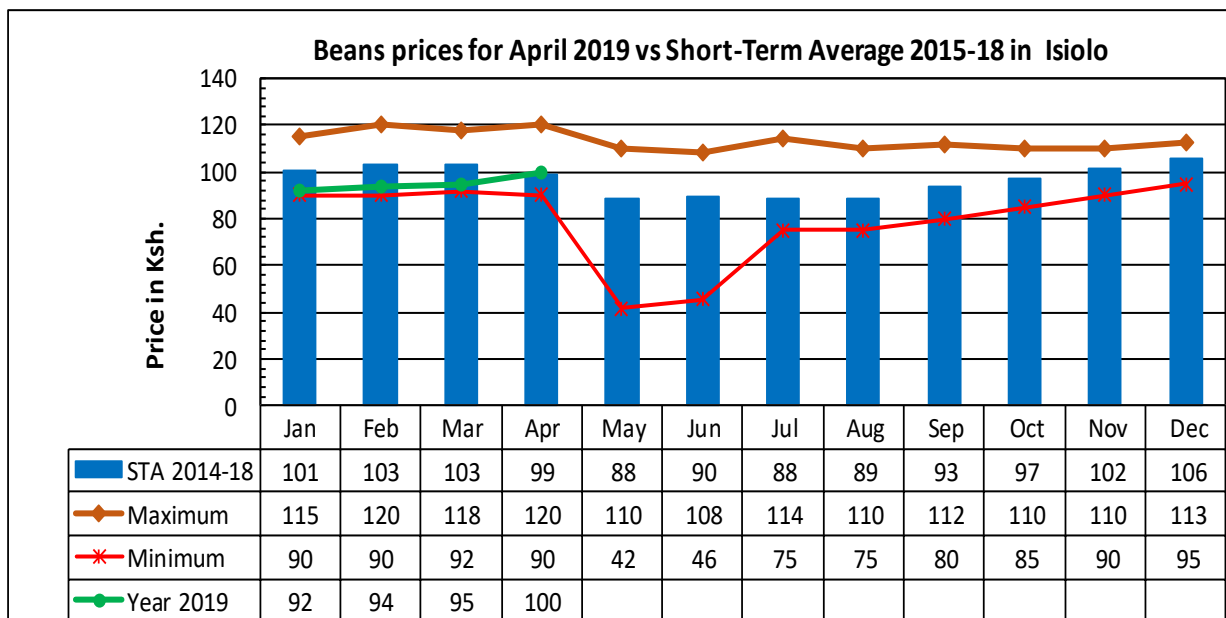


Figure 9: A graph showing average market price for pulses (beans)

### 4.3 Livestock Price Ratio/Terms of Trade

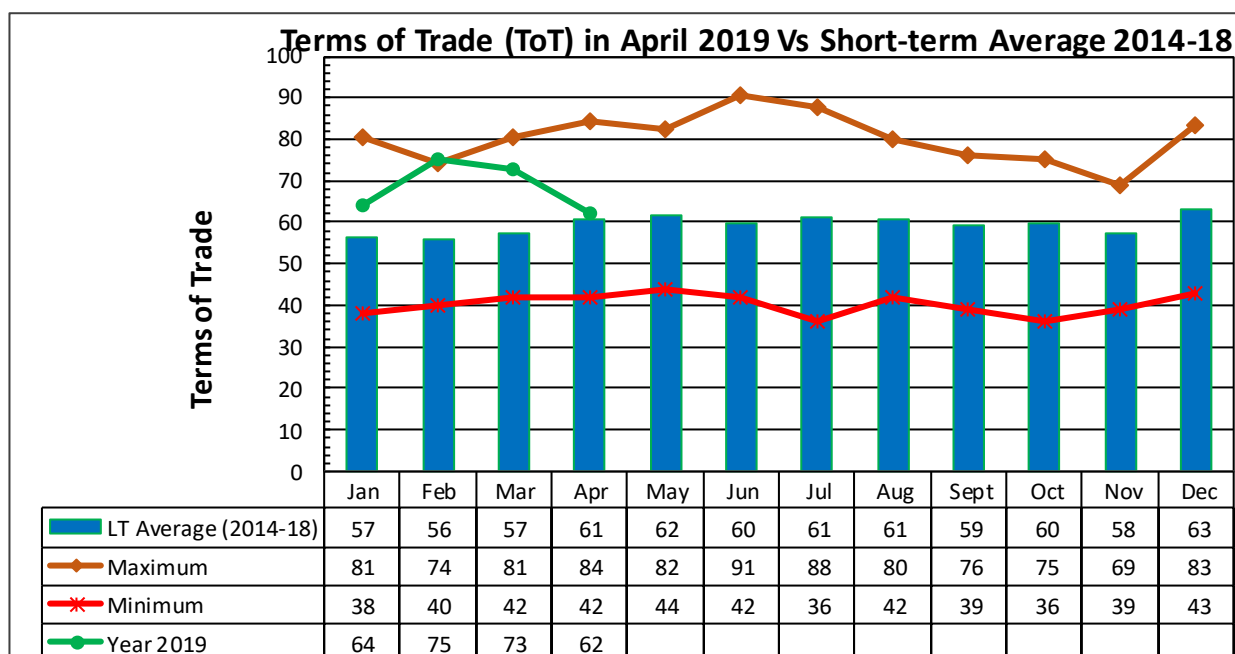


Figure 10: A graph showing the pastoralists' Terms of Trade in the county

- The Terms of Trade (the number of kilograms of maize a household would purchase after a sale of one goat) reduced significantly to 62 kg/goat in the month under review down from 73 kg/goat in the previous month.
- The livestock/cereal price ratio was 3.0 percent higher than the 11-year long-term average of 61 kilograms of maize per goat.

- Purchasing power of pastoral households is expected to stabilize in the following months as livestock prices are set to stabilize or probably increase in the short run following onset of the long rains season whose impact on rangelands is expected to restore the productivity levels of all species.
- The period's reduced level of purchasing power was mainly influenced by the increased price of cereal prices with a subsequent decrease in market and farm-gate price of small stock.

## 5.0 FOOD CONSUMPTION AND NUTRITION STATUS

### 5.1 Milk Consumption

- Average milk consumption per household reduced significantly to 0.80 litres during the period under review from 1.10 litres in the previous month.
- The reduction in the amount consumed was partially be attributed to the declining rate of production attributed to the prolonged dry spell conditions.

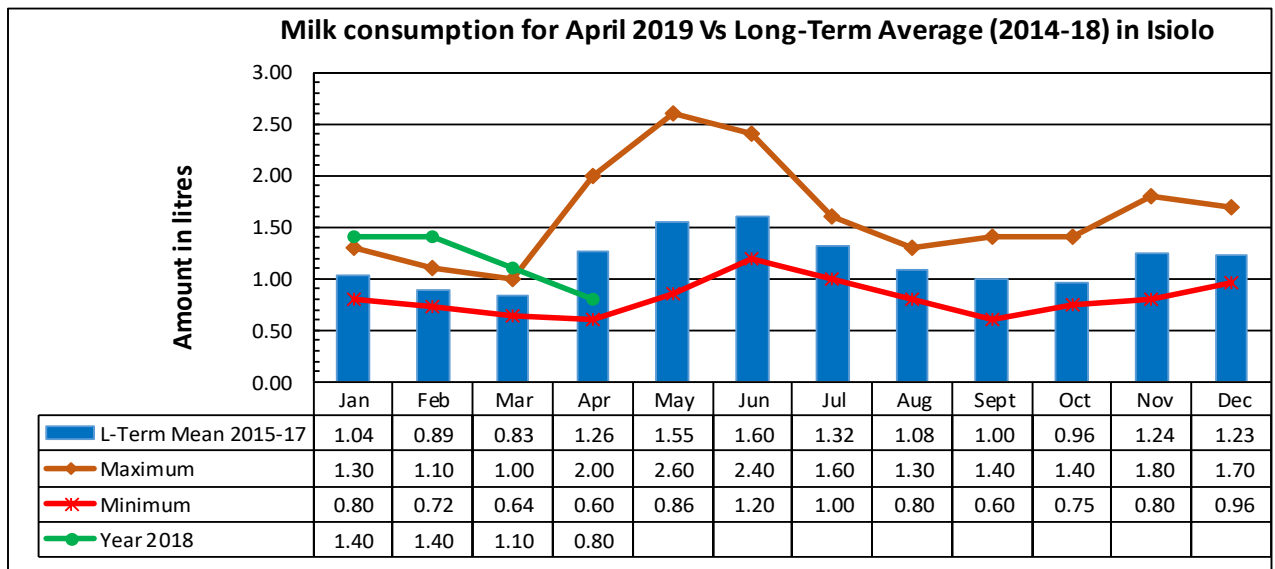


Figure 11: A graph showing the average milk production in the county

- The average consumption was 36 percent lower than the short-term average of 1.26 litres.
- Majority of the milk consumed at the households was from cattle and camel and a little from goats where consumption was high in the pastoral livelihood zone litres as compared to other zones.

### 5.2 FOOD CONSUMPTION SCORE

- The proportion of households who were persistently food insecure increased slightly to 36.7 per cent in the month under review from 35.0 per cent in the previous month.
- The trend is an indication of a further deterioration in food commodities supply following the prolonged dry spell. This has limited consumption of all dietary requirements by slightly more than a 36 per cent of the county households.

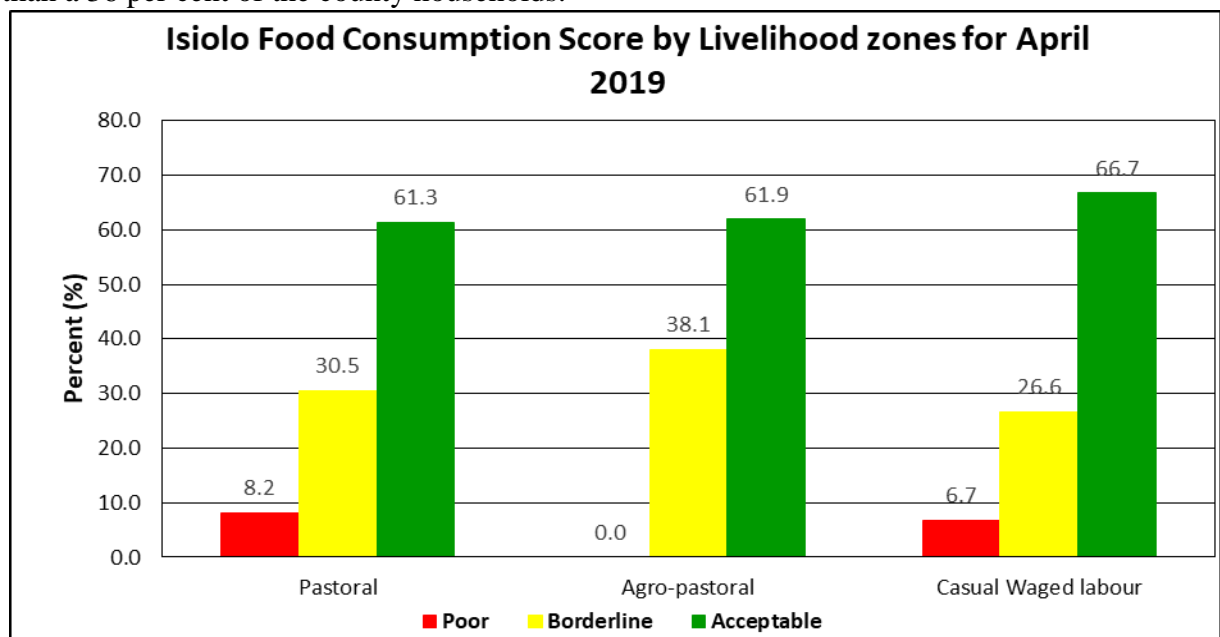


Figure 12: A graph showing the households' food consumption score

- The deteriorating food consumption pattern was attributed to the decreased Terms of Trade implying that household had limited access to food commodities.
- There was a significant decline in household milk consumption in all pastoral and agro-pastoral livelihood zones following a reduction in the amount produced.
- Food consumption score is likely to improve if ongoing long rains will have a positive impact on restoration of the pastoral and agro-pastoral livelihoods.
- *“A poor score implies households are consuming staples and vegetables every day and rarely consuming protein rich food while borderline FCS imply that households consumed staples and vegetables every day accompanied by oil and pulse 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

- The proportion of children at risk of malnutrition (whose MUAC measurement was below 135.0mm threshold) increased slightly to 10.7 in the month under review from 9.5 percent in the month under review.
- The increase could be attributed to the worsening food availability and access from the markets. The reduction in milk consumption could also contribute to the deteriorating level of nutrition.
- A greater proportion of children at risk of malnutrition are victims of poor food consumption behavior (low meal frequency) in the pastoral livelihood zone and incidence of endemic diseases.
- The proportion of children at risk of malnutrition was however 46 percent lower than the long-term average of 19.7 percent indicating a better nutrition situation compared to the past.
- The level of nutrition is currently better mainly attributed to a considerable level of recovery in pastoral and agro-pastoral livelihoods.

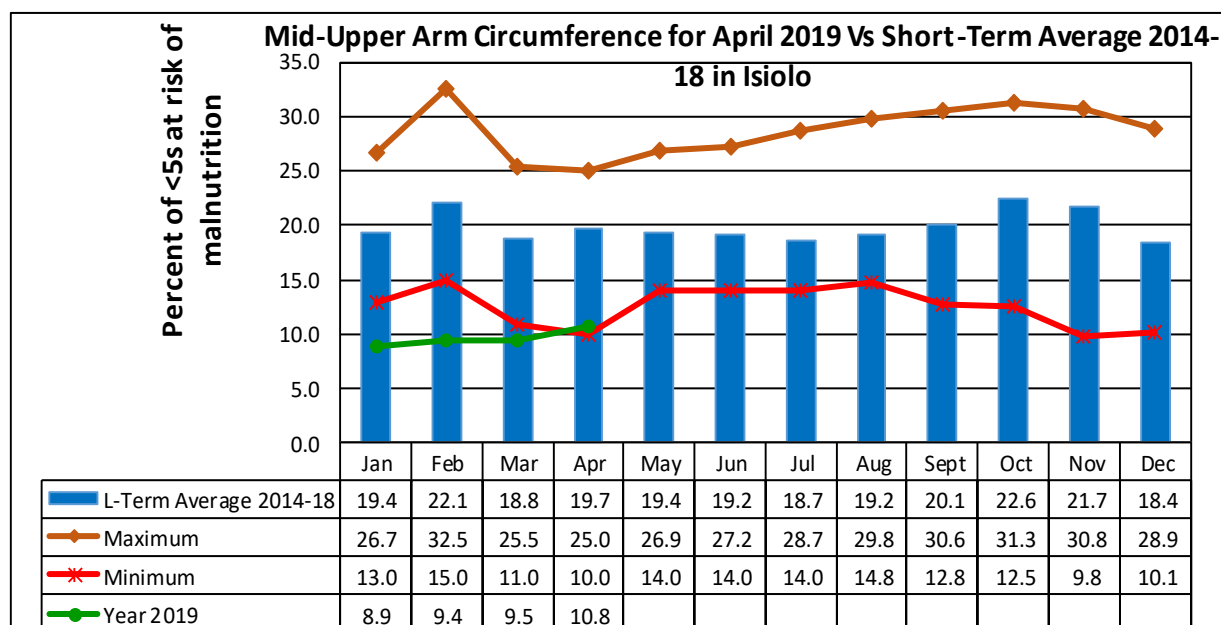


Figure 13: A graph showing the Mid-Upper Arm Circumference for children under 5 years of age

### 5.3.2 Health

- 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, malaria, intestinal worms and skin disease.

## 5.4 COPING STRATEGIES

- Coping Strategy Index (CSI) increased significantly to 9.8 in the month under review from 9.1 in the previous month.
- The observed increment in the index is an indication of an increased number of households employing more coping strategies when compared to the previous month. This implies that the level of food security for a number of households deteriorated over the month under review.
- The most commonly employed coping mechanisms over the period included reliance on less preferred and or expensive food, reduction of the number of meals, reduction in portion or size of meals.

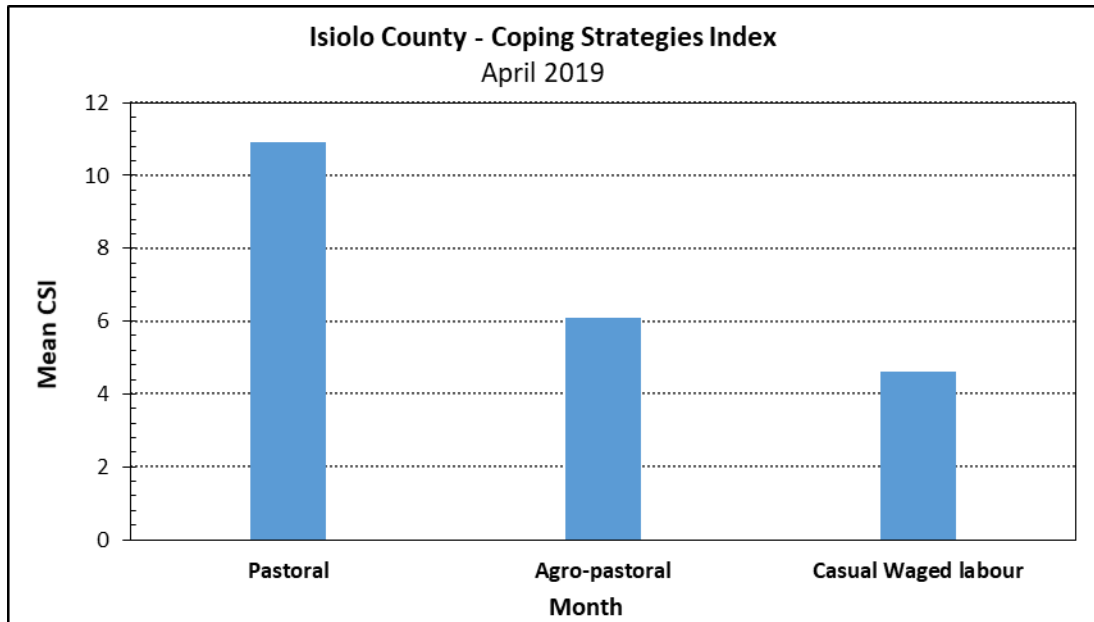


Figure 14: A graph showing the monthly reduced Coping Strategies Index

## 6.0 CURRENT INTERVENTION MEASURES (ACTION)

### 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
Peace talks in Kom Triangle	Charri	Isiolo North	NDMA, GoK,	256,000
Provision of fuel subsidy to strategic boreholes	Cherab, Sericho	Isiolo North and Isiolo South	NDMA	100,000 goats and sheep
Water Trucking	Oldonyiro, Biliqi (Sericho), Cherab	Isiolo South and Isiolo North	County Government NDMA	7,000 Households
Repairing of boreholes	Lenguruma, Daaba, Duse, Taiboto (Garbatulla)	Isiolo North and Isiolo South	County Government	1500 Households
Sensitization on commercial off-take	Cherab, Kinna, Oldonyiro and Sericho	Isiolo North and Isiolo South	NDMA	4 Livestock Markets
Vaccination against PPR	All wards	Isiolo South and Isiolo North	FAO, Department of Veterinary	700,000 Goats
Cash Transfer programme	Cherab and Oldonyiro	Isiolo North and Isiolo South	Kenya Red Cross Society	2,500 Households
	Oldonyiro, Kinna, Burat and Ngaremara		WFP	6,000 Households

### 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	All wards	Garbatulla, Merti and Isiolo	National Government	50,000 beneficiaries 700 bags of maize in Garbatulla, Merti and Isiolo sub-counties



## **7. EMERGING ISSUES**

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

- Yamicha, Alango, Urura and Duma grazing reserves have attracted pastoralists from neighboring county of Wajir hence putting pressure on water, pasture and browse. This competition has resulted to tension and insecurity in these areas.

### **7.2 Migration**

- Herders from Isiolo, Samburu and Wajir moved their herds into dry season grazing reserves in Kom, Yamicha and Duma. Conflicts in the area have emanated on several occasions.
- There were internal movement of herders from Isiolo Central and Oldonyiro to Nakuprat-Gotu Community and Lososia conservancies respectively.
- Herders from Garissa County migrated into Isiolo South sub-county mainly targeting Hawaye in Sericho ward and Garbatulla and Kinna wards which have better availability of forage resources compared to their home county.

### **7.3 FOOD SECURITY PROGNOSIS**

- The overall performance of production in the pastoral and agro-pastoral livelihood zones declined further in varied degrees as an impact of the prolonged dry spell that led to further depletion of rangeland resources.
- Showers received at the end of the month under review, signified a late onset of the long rains season, though poorly distributed spatially. Moderate downpours were also received in some parts of the county had significant impact on surface water recharge.
- No significant rains were received in the entire Merti sub-county.
- Signs of declining productivity in livestock had set in the month under review in pastoral livelihood zone, with a remarkable decline in milk production.
- Livestock market and farm-gate prices deteriorated slightly, a risky shift that could erode pastoral households' purchasing power whose access to the markets was being limited by the distance from the dry grazing reserves. Deteriorating body conditions had contributed in the declining livestock prices.
- Crop farming was affected by prolonged dry spell. Low irrigation activities was experienced due to low water levels in rivers. This led to reduced production resulting to increased prices of fresh supplies.
- Water shortages in several settlements in Isiolo South and North led to increased reliance on water trucking. The trend is likely to change in Isiolo South if the rains continue in May 2019 and probably worsen in Isiolo North where no rains have been received so far.
- Access to food commodities was relatively stable but the employment of more coping strategies hinted a signal of a declining food security situation in the county, which limited household to ability to meet the minimum dietary requirements.
- The prolonged dry spell and the now localized reception of rains implies that livelihood recovery would follow the same trend. The imbalanced environmental developments, a likely trigger of internal migration and resource-based conflicts, may hinder livelihoods recovery, hence a threat to the already poor county food security.

## **8. RECOMMENDATIONS**

- Rehabilitation and unblocking of drainage system in Isiolo town and major centres to reduce the risk of destruction of infrastructure and property by flash floods.
- Support peace building, conflict resolution and cohesion mechanisms in all sub-counties. Areas of major focus include Kom, Yamicha, Duma, Boji Dera, Hawaye, Garbatulla, Modogashe and Sericho.
- Provide support for an active and continuous human and livestock disease surveillance for all possible disease pandemics.
- Sensitization of commercial livestock off-take in all wards.
- Pre-positioning of livestock feeds in all wards.
- Scale up of water trucking in water shortage hot spot.
- Continue the provision of relief food to the vulnerable households (those in Poor and Borderline consumption groups) in all wards.
- Support cash transfer programmes to vulnerable groups.
- Support pastoral communities in rangeland management to ensure that pastoral communities are able to utilize the available forage resources in organized grazing patterns and be able to prevent and control bush fires.
- Promotion of hygiene and sanitation practices especially the Community Led Total Sanitation (CLTS).