

National Drought Management Authority
THARAKA NITHI COUNTY (THARAKA)
DROUGHT EARLY WARNING BULLETIN FOR AUGUST 2020



A Vision 2030 Flagship Project



August 2020 EW Phase

Drought Status: NORMAL



Early Warning Phase Classification

	EW PHASE	TRENDS
Mixed Farming	Normal	Stable
Marginal Mixed Farming	Normal	Stable
Rain Fed Livelihood Zone	Normal	Stable
County	Normal	Stable
Biophysical Indicators	Value	Normal Ranges
Rainfall % of Average	80%	80-120
VCI-3month	61.51	>35
Water Sources	Normal	Normal
Production Indicators	Value	Normal Ranges
Livestock Migration Pattern	No Migration	No Migration
Livestock Body Conditions	Fair	Good
Milk Production	1.8Litre	Above 1.38 of a Litre
Livestock deaths (from drought)	No death	No death
Access Indicators	Value	Normal
Terms of Trade	113.6	Above 90
Milk Consumption	1.8 Litres	Above 1.25 of a Litre
Water for Households	Normal	Normal
Utilization indicators	Value	Range/Value
Coping Strategy Index (CSI)	3.17	Below 6.9
Food Consumption (Acceptable FCS)	87.20%	Above 23.60%

Drought Situation & EW Phase Classification

Biophysical Indicators

- No rainfall was recorded in August which was normal during this long dry spell period lasting from July to mid-October. However, forage condition and water status remained normal.
- The normal short rain onset is expected from mid-October. The short rain is expected to perform better which will be the normal onset.
- Vegetation cover across the County remained normal but on a reducing trend which was also manifested in Pasture and browse condition.
- The current biggest contributing factor to vulnerability and food insecurity is Covid 19 pandemic but the situation is improving.

Socio Economic Indicators (Impact Indicators)

Production Indicators

- Livestock body condition was good and stable. Food Stock at households' level was normal and stable due to normal long rain harvests.

Access Indicators

- Livestock and commodity prices remained stable with marginal changes due to return to normalcy of market.
- Household water distance was within the normal range due to good status of water sources.
- Milk production and consumption was normal which led to low malnutrition cases.

Utilization Indicators

- Following all the above prevailing conditions, the overall drought phase in the month of July was normal and stable.

Seasonal Calendar

<ul style="list-style-type: none"> Short rains harvests Short dry spell Reduced milk yields Increased HH Food Stocks Land preparation 	<ul style="list-style-type: none"> Planting/Weeding Long rains High Calving Rate Milk Yields Increase 	<ul style="list-style-type: none"> Long rains harvests A long dry spell Land preparation Kidding (Sept) Increased HH Food Stocks 	Short rains Planting/weeding								
Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec

1.0 CLIMATIC CONDITIONS

1.1 RAINFALL PERFORMANCE

- The month of August was characterised with a mixture of sunny and cloudy weather condition. No noticeable rainfall was recorded in August which was normal compared to the long term average during the same period.
- The figure 1 below shows the rainfall trend for 2020 compared to the long term average.

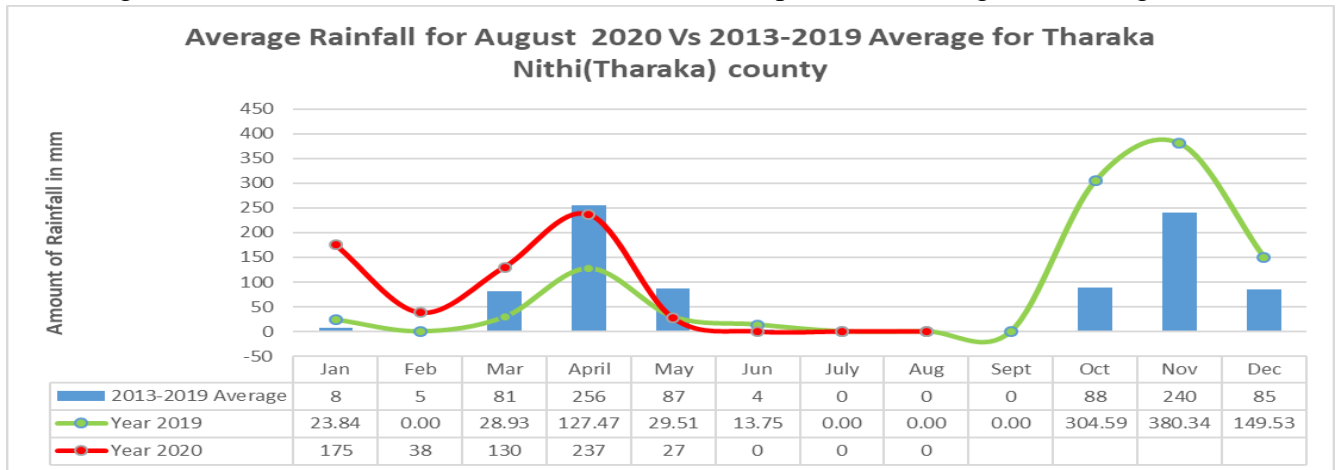


Figure 1 : Rainfall trend for 2020 Vs 2013-2019 Average

2.0 IMPACTS ON VEGETATION AND WATER

2.1 Vegetation Condition Index (VCI)

- The cumulative 3-month vegetation cover for Tharaka Nithi County (Tharaka) for August was 61.51 from 57.85 in July indicating normal vegetation greenness.
- Pasture and browse reduced across all the livelihood zones due to the ongoing long dry spell however, they still remained within the normal range.
- The matrix in figure 1(a) below shows vegetation cover classification based on the drought phases while figure 1(b) shows the trend of vegetation cover in terms of vegetation condition index for Tharaka Nithi (Tharaka) County.

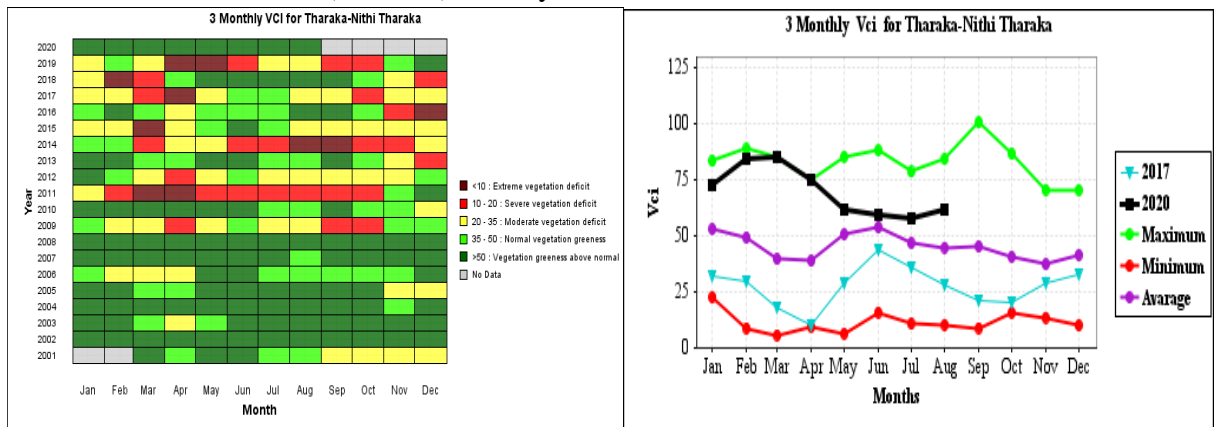


Figure 2(a): Matrix of VCI Classification

Figure 3(b): Chart of VCI Trend

Table 1: August 2020 Vs July 2020 VCI (3M)

ADMINISTRATIVE UNITS		VCI as at 30th July 2020	VCI as at 31 st August 2020
County	County/Sub County		
Tharaka Nithi	County	65.9	68.49
	Tharaka	57.85	61.51
	Chuka Igambang'ombe	78.52	78.63
	Maara	76.19	78.38

2.2 Natural Vegetation and Pasture Condition

Pasture Condition

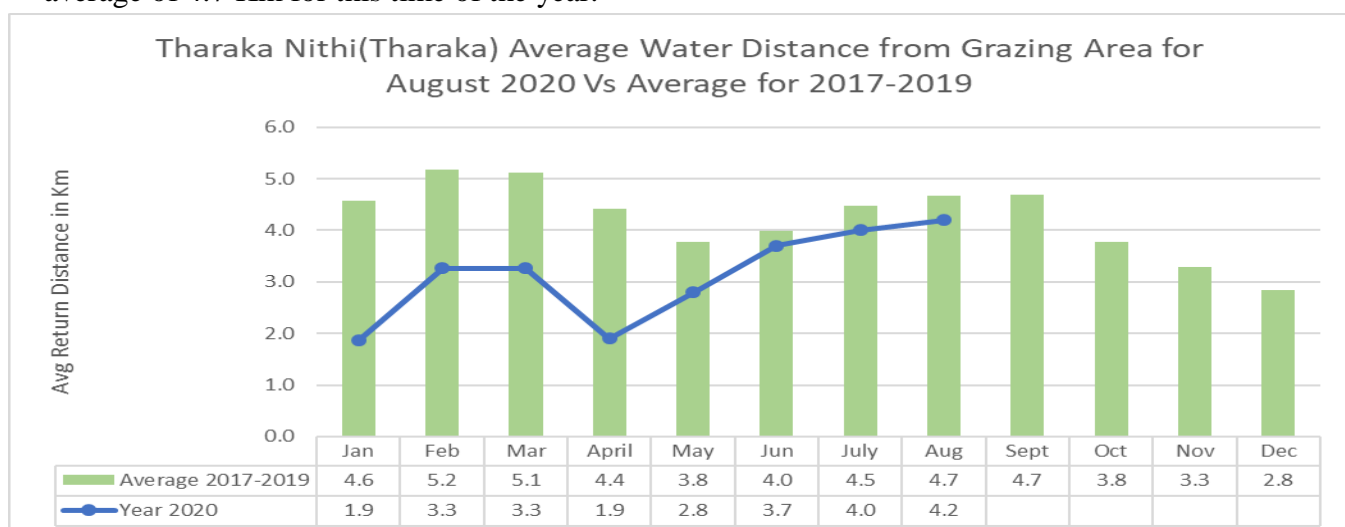
- Pasture quantity and quality was fair across all the Livelihood zones during the month of August but with a reducing trend.
- Pasture condition reduced slightly from that of the previous month but the condition remained normal.

Browse Condition

- Browse condition in terms of quantity and quality was also fair across all the livelihood zones in the month of August but reduced compared to that of the previous months.
- This reduction of browse was due to the onset of the dry spell in June and is expected to continue till mid-October when the short rains are expected to begin.

Livestock Access

- Average return water distance from grazing area increased from 4 Km in July to 4.2 Km in August. This was attributed to the ongoing dry spell which reduced the recharge of water sources leading to decreased livestock access to water. The longest return water distance to grazing areas was recorded in the Marginal Mixed Farming Zone at 7 Km, followed by Mixed Farming Zone at 3.6 Km while Rain Fed Cropping Zone recorded the least grazing distance of 2 Km.
- The average return water distance from grazing areas was 10.64 percent lower than the long term average of 4.7 Km for this time of the year.

**Figure 4: Grazing Distance for Livestock**

2.2 Water Sources and Availability

2.2.1 Main Sources of Water

- The major sources of water for livestock and domestic use in Tharaka Nithi County for the month of August was: Rivers, Boreholes and Traditional River wells as shown by figure 4 below.

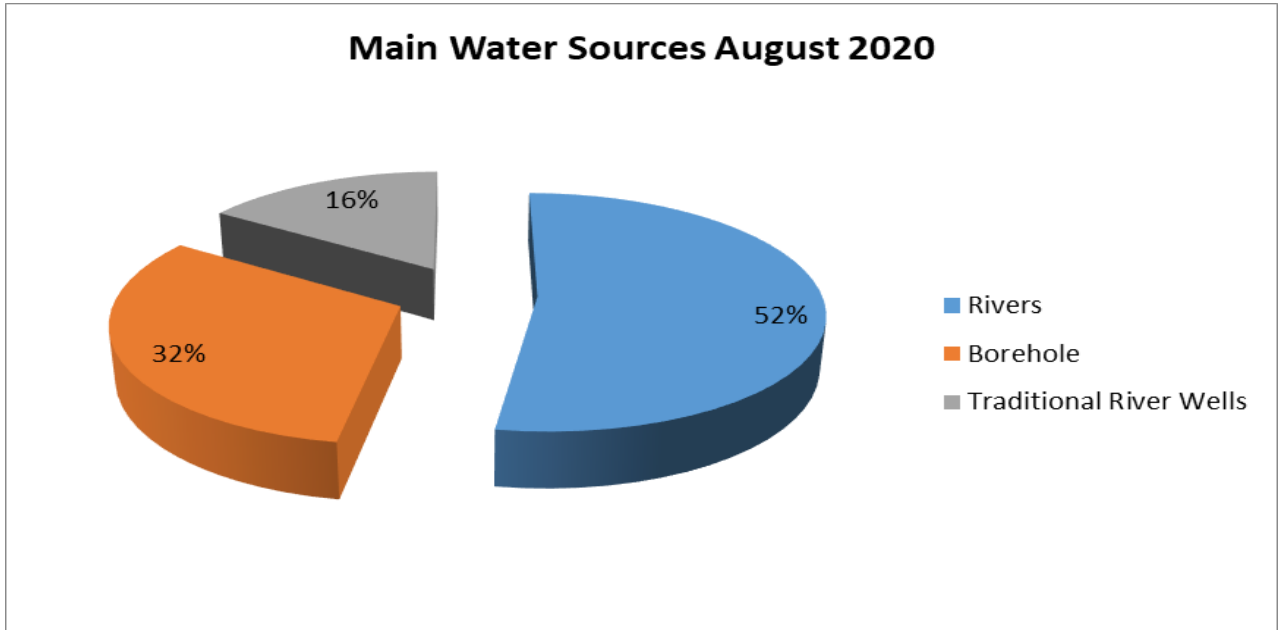


Figure 5: Main Water sources Tharaka Nithi County

2.2.2 State of Water Sources

- The state of water sources for the month of August was within the normal range but the trend was reducing. The water recharge level both for the surface and underground sources was still within the normal range.
- Status of water sources across all the Livelihood Zones was ranked as declining which is at index 4 in reference to the scale below:

Table 2: State of Water Sources

INDEX	STATE OF WATER	DESCRIPTION
1	EMERGENCY.SITUATION	All main water sources have dried up; only few boreholes still yielding significant amounts
2	STRONGLY INADEQUATE	Surface water sources have dried up while the underground water sources are yielding very little amounts of water. Breakages of boreholes contribute to worsen the situation. Acute water shortage in many areas within the livelihood
3	INADEQUATE	Surface water sources have dried up while the underground water sources are yielding modest amounts of water. Concentration of livestock around few water points contribute to spread communicable diseases and to degradation of rangeland

4	DECLINING	The water availability is below normal for the period, but showing declining trends.
5	NORMAL	The water availability is normal for the period
6	GOOD	The water availability is above normal for the period

2.2.3 Household Water Access

- Average Household water return distance in August 3 Km from 2.9Km in July which was almost the same as of the previous month. Household return water distance in Marginal Mixed Farming Livelihood Zone was 4.8 Km, 3.4 Km in Mixed Farming Zone while the Rain Fed Zone had the least household distance of 1 Km.
- The average distance of household access to water was 31.82% lower than the long-term average of 4.4 Km for the month of August.

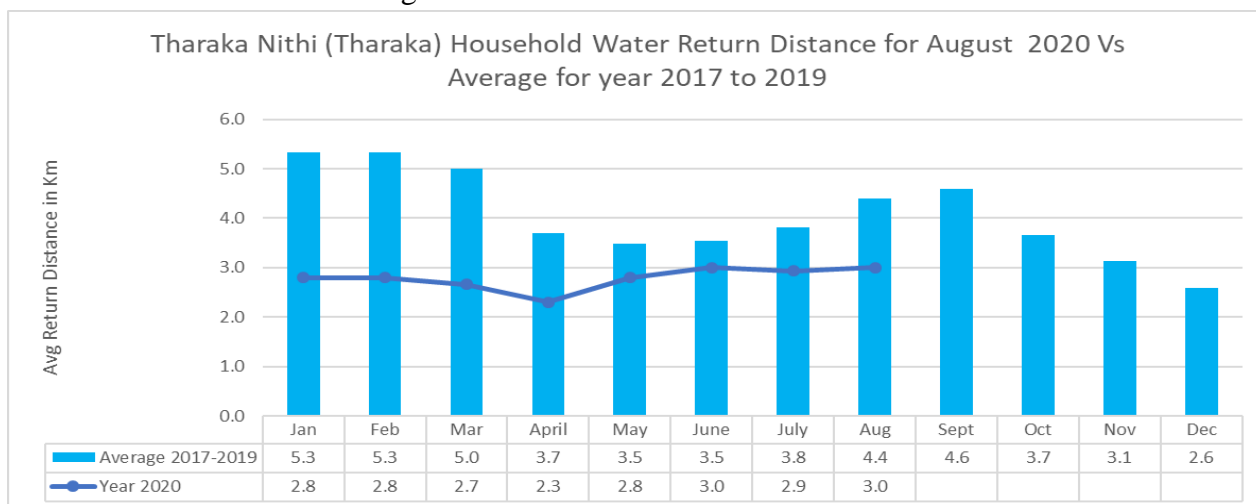


Figure 6: Household Water Distance

3.0 PRODUCTION INDICATORS

3.1 Livestock Production

3.1.1 Livestock Body Condition

- Livestock body condition for both cattle and shoats was good across all the livelihood zones.
- The fair to good livestock body condition was attributed to fair pasture and browse condition across most of the livelihood Zones.
- The Livestock body condition in August for cattle and shoats was rated at index 6 as per the livestock threshold scale below.

Table 2: Livestock Body Condition categories

BODY CONDITIONS	SCORE	WARNING STAGE
Emaciated, little muscle left	1	Emergency
Very thin no fat, bones visible	2	
Thin fore ribs visible	3	Alert Worsening/Alarm
Borderline fore-ribs not visible. 12 th & 13 th ribs visible	4	Alert
Moderate. Neither fat nor thin	5	Normal/Alert
Good smooth appearance	6	

Very Good Smooth with fat over back and tail head	7	Normal
Fat, Blocky. Bone over back not visible	8	
Very Fat Tail buried in fat	9	

3.1.2 Livestock Diseases and Migration

- There were no cases of Livestock migration and diseases. However, there were few reported cases of LSD in cattle in Gatunga, Mukothima, and Gatithini. There were also reported cases of Anaplasmosis due to infestation of ticks and feeding of dry matter by livestock during this harvesting period.

3.1.3 Milk Production

- Milk production remained low at 1litre in August as of the previous month. Milk production was almost the same as of the previous month and it was lower than the long term average. This low production might can be attributed to increased water distance to water despite having fair pasture and browse. However, the browse condition were also on a downward trend.
- Marginal Mixed Farming livelihood Zones had an average production of more than a litre per household per day while production in other Zones was lower. Milk production per household was 27.53 percent lower than the 3-year average of 1.38 litre per household per day for this time of the year.

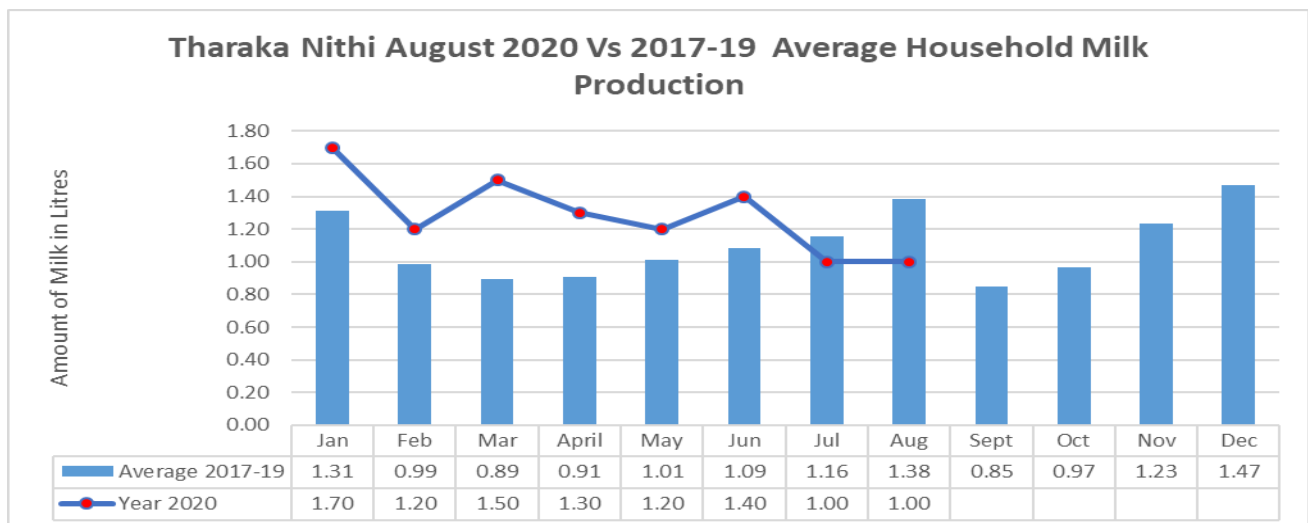


Figure 7 : Milk Production Trend

3.2 Crop Production

3.2.1. Timeliness and Status of Crops

- Farming activities during the month of August was threshing and marketing of cereals and pulses.
- Pulses grown were green grams, cowpeas and pigeon peas while cereal crops were Millet and Sorghum. Maize was mainly grown in parts of rain fed and mixed farming zone.

3.2.2. Pests and Diseases

- There were few reported cases of pests and diseases.

4.0 MARKET PERFORMANCE

4.1 Livestock Prices

4.1.1 Cattle Prices

- The average cattle price increased from Kshs. 27,158 in July to Kshs. 29,000 in the month of August which was almost the same as of the previous month. This increase in Cattle price was attributed to fair pasture and the resumption of livestock markets.
- The Mixed Farming Livelihood Zone had the highest average price of Kshs 32,667; the Marginal Mixed Farming Livelihood Zone had the price of Kshs 29,167 while the Rain Fed Cropping Livelihood Zone had the price of Kshs 25,000. The current price was 50 percent higher than the three-year average of Kshs 19,326.

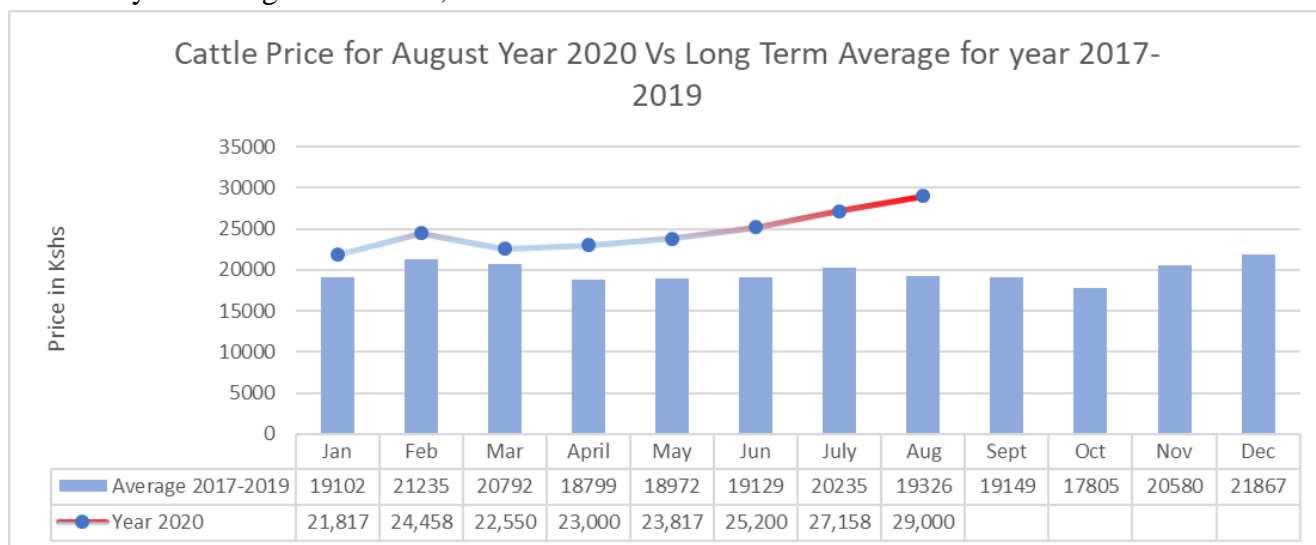


Figure 8: Cattle Price Trend

4.1.2 Goat Prices

- The average goat price increased from Kshs 4,313 in July to Kshs 4,117 in the month of August. The increase in price could be attributed to resumption of normalcy make shifts livestock markets.
- The Marginal Mixed Farming Livelihood Zone had the highest price of Ksh. 4,350; Rain Fed Cropping Livelihood Zone recorded the price of Kshs 4,000 while the Mixed Farming Zone recorded the lowest price of Ksh. 3,767.
- The average goat price was 26.83 percent higher than the three-year average of Ksh 3,246.

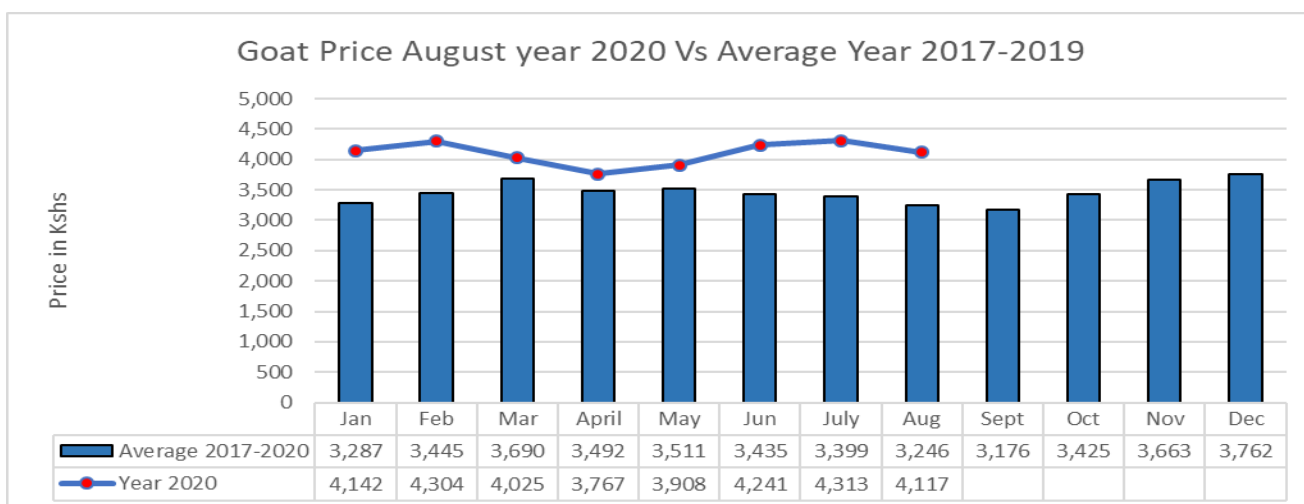


Figure 9 : Goat Price Trend

4.2.1 Maize Prices at Market Level

4.2 Price of Cereals and Other Food Products

4.2.1 Maize Prices at Market Level

- The average market price of a Kilogram of maize decreased from Kshs 39 per Kg in July to Kshs 36 per Kg in August. This decrease in maize price could be attributed to increased supply from outside the county where harvesting is ongoing.
- Maize price was Kshs 40 per Kg in the Mixed Farming Livelihood Zone, Kshs 35 per Kg in Marginal Mixed Farming and Rain Fed Livelihood Zone.
- The average maize price was 14.29% lower than the three-year average price of Kshs 42 per Kg in August.

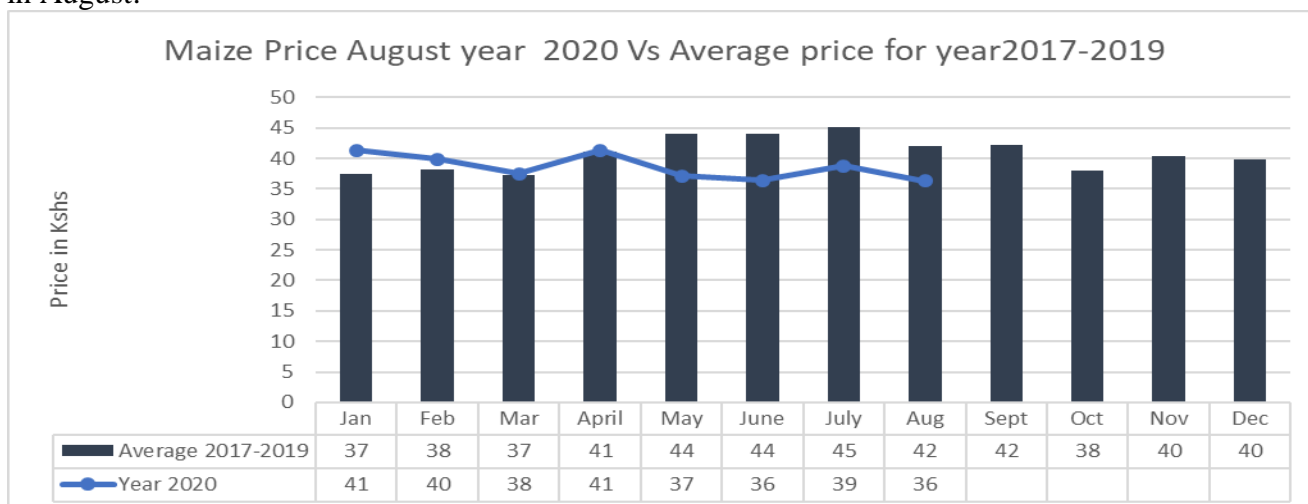


Figure 10: Maize Price Trend

4.2.2 Millet Price at Market Level

- The average market price of millet increased slightly from Kshs 34 per Kg in July to Kshs 43 per Kg in August which lower than the long term average. The increase in millet price could be attributed to the concluded the long rain harvest which led to a decrease in millet supplies to the market hence an upward trend in prices.
- The Mixed Farming Livelihood Zone recorded the highest market price of Kshs Kshs 60 per Kg followed by Rain Fed Livelihood Zone at Kshs 42 per Kg while the Marginal Mixed Farming Livelihood Zone recorded the least price of Kshs 35 per Kg.

- The millet price was 24.56 percent lower than the long-term average price of Kshs.57 per Kg for the month of August.

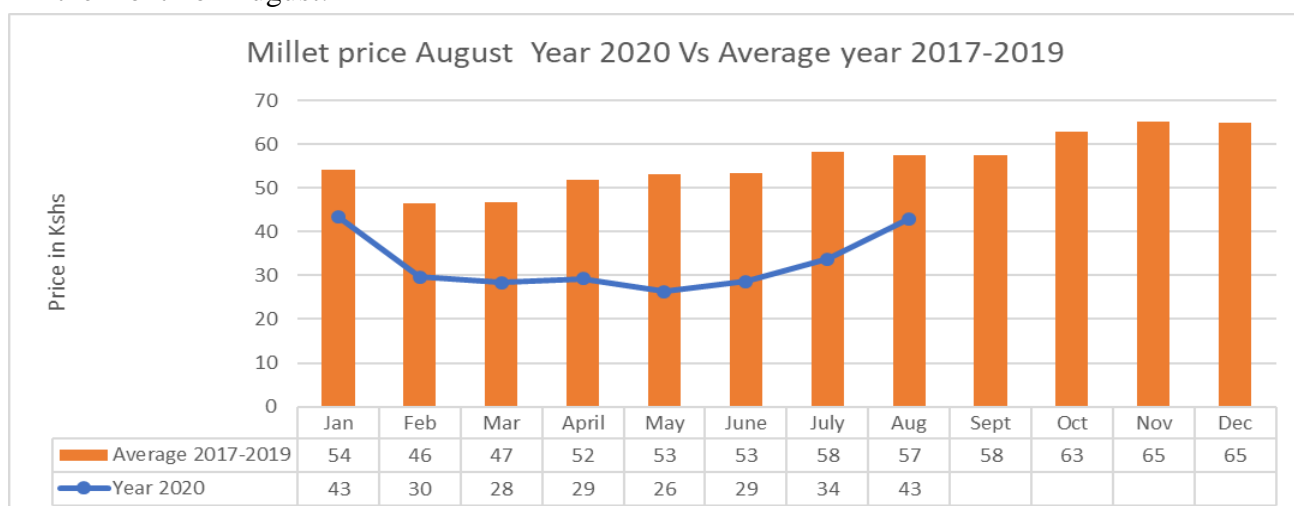


Figure 11 : Millet Price Trend

4.2.3 Terms of Trade (ToT)

- The Terms of Trade increased from 112 in July to 113.6 in August which was almost the same as of the previous month.
- The highest ratio was recorded in the Marginal Mixed Farming Zone at 124.29; followed by Rain Fed Cropping Zone at 114.29; while Mixed Farming Zone had the least term of trade ratio at 94.18.
- The term of trade for the period under review was 26.22% higher than the three-year average value of 90 during the same period.

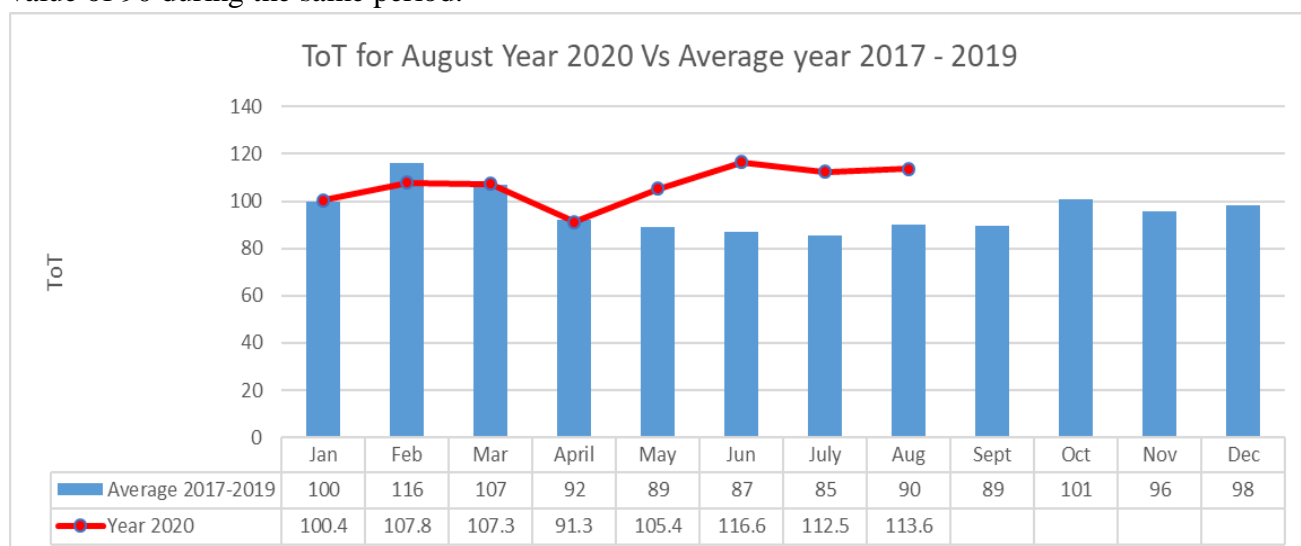


Figure 12: Term of Trade

4.2.4 Income sources

- The main sources of income for households in Tharaka Nithi County for the month of August were: Petty trade, Casual labour, Sale of crops, Employment/wages and Sale of livestock and livestock product as shown by the figure 14 below.

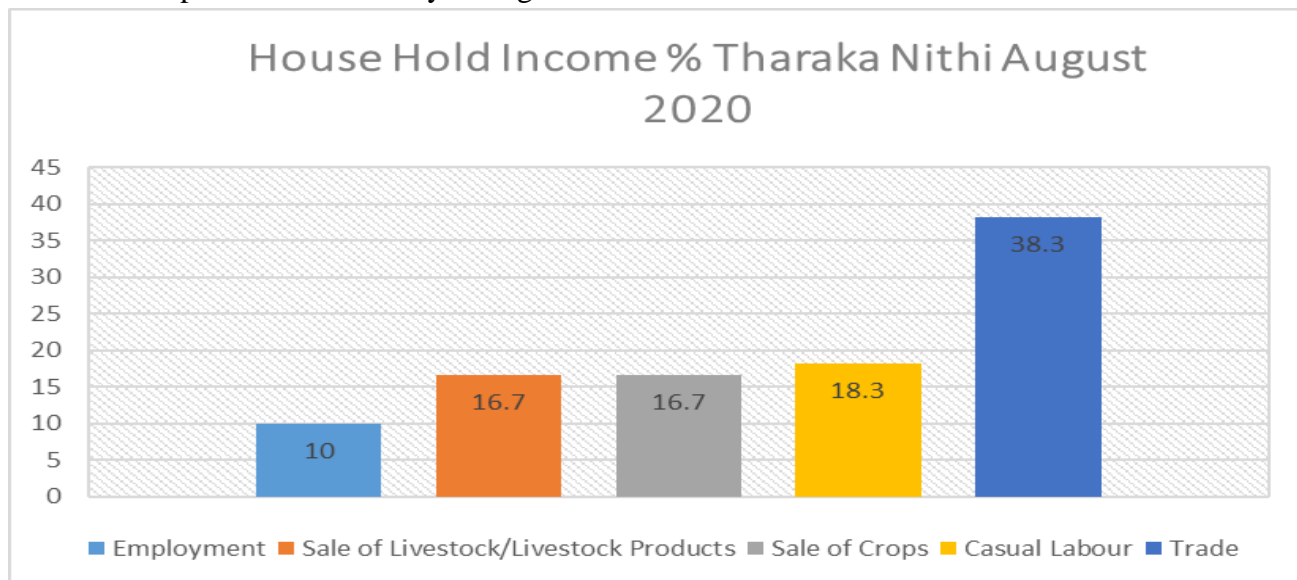


Figure 13 : Tharaka Nithi Percentage Household Income

5.0 FOOD CONSUMPTION AND NUTRITION STATUS

5.1.1 Milk Consumption

- The average milk consumption per household per day in the month of August was 1.3 litre from 1 litre per household per day in July which was within the normal range and almost the same as of the previous month.
- This was attributed to availability of milk at household level. The average milk consumed was 4 percent higher than the 3-year average of 1.25 of a litre.

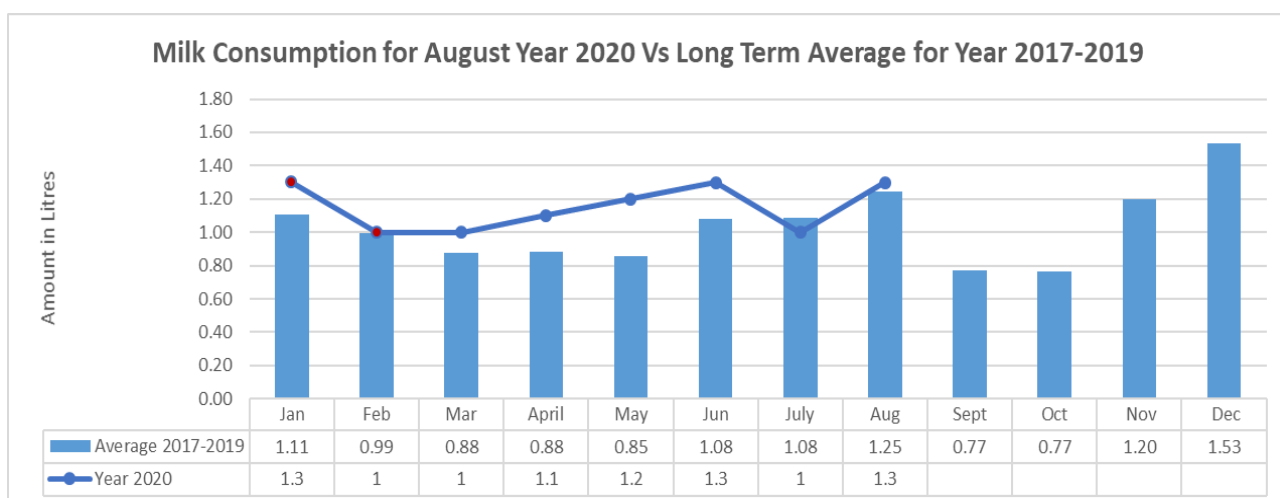


Figure 14 : Milk Consumption Trend

5.1.2 Food Consumption Score

- Proportion of households with acceptable Food Consumption Score increased from 77.23% in July to 87.20% in August as shown by the graph in fig. 16 below. Acceptable FCS in August was high and within the normal range.
- High Food Consumption Score could be attributed to high stock level from the long long rain harvest leading to availability of food stocks at household level hence good household food security and diversity.

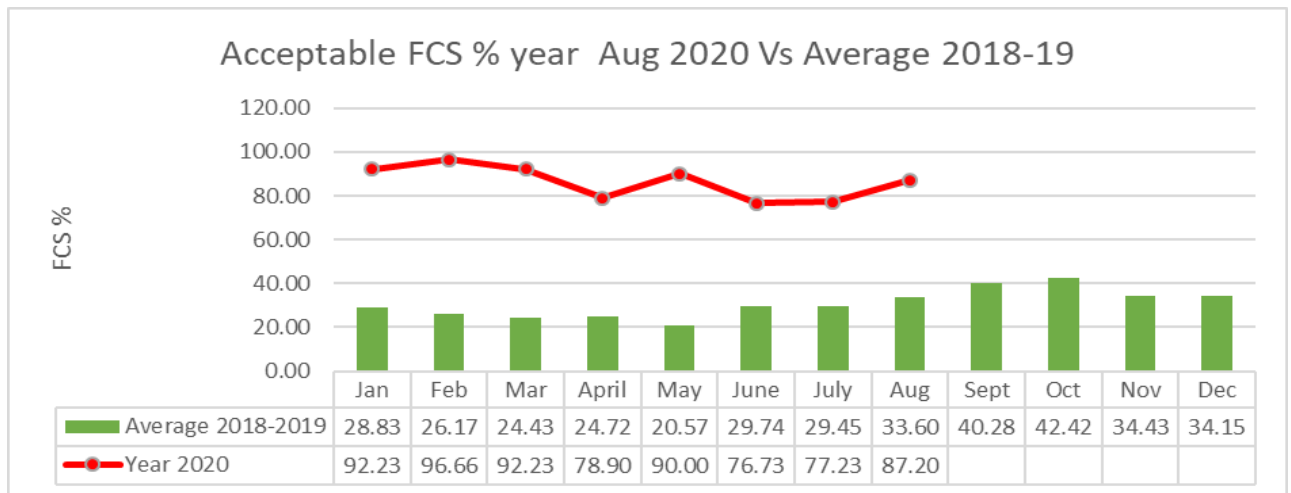


Figure 15: Trend of the Proportion of HHs with Acceptable FCS

- A higher number of Food Stressed Households were in the Rain Fed Cropping Livelihood Zone at 33.4% followed by Marginal Mixed Farming Livelihood Zone at 5% while the least food stressed households were reported in the Mixed Farming Livelihood Zones as shown by figure 17 below.

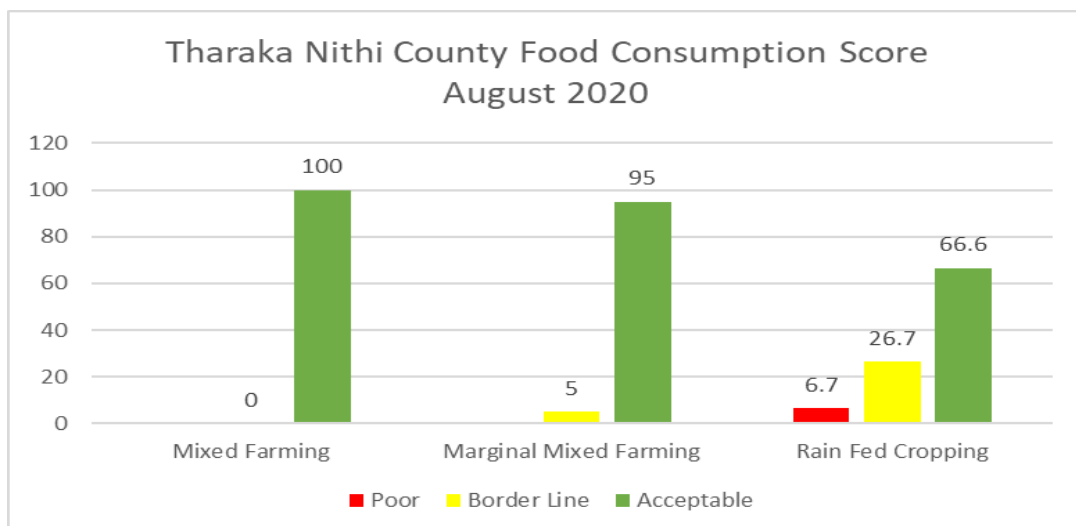


Figure 16: Food Consumption Score Chart

Table 3: Average Food Consumption Score

Period	Acceptable (%)	Borderline (%)	Poor (%)	Food Insecure HH (%)
January 2019	92.23	7.77	0	7.77
February	96.67	3.33	0	3.33
March	92.23	7.77	0	7.77
April	78.9	21.1	0	21.1
May	90	10	0	10
June	76.73	23.27	0	23.27
July	77.23	21.67	1.1	21.77
August	87.2	10.57	2.23	12.8

- The poor food consumption score implies household are not consuming staples and vegetables every day and rarely consuming protein rich food, borderline imply household are consuming staple, vegetable every day accompanied by oil and pulse a few times in a week while the acceptable imply households consuming staples, vegetables every day, and frequently accompanied by pulses.

5.2 UTILISATION INDICATORS

5.2.1 Health and Nutrition Status

Health

- The prevalence of most common diseases for the general population in Tharaka Nithi County include diseases of the respiratory system, malaria, skin disease, urinary tract infections and rheumatism while those mainly affecting children under five years include: diseases of the respiratory system, pneumonia, malaria, intestinal worms and skin diseases.

5.2.3 Coping Strategy Index

- The Coping Strategy Index (CSI) increased from 1.93 in July to 3.17 in August which was almost the same as of the previous month. The low CSI indicated low household stress to obtain food or money to buy food during the month of August.
- The CSI for August 2020 was lower than that of 2018-19 average for August which further indicates less difficulty in obtaining food in 2020 during the same period.

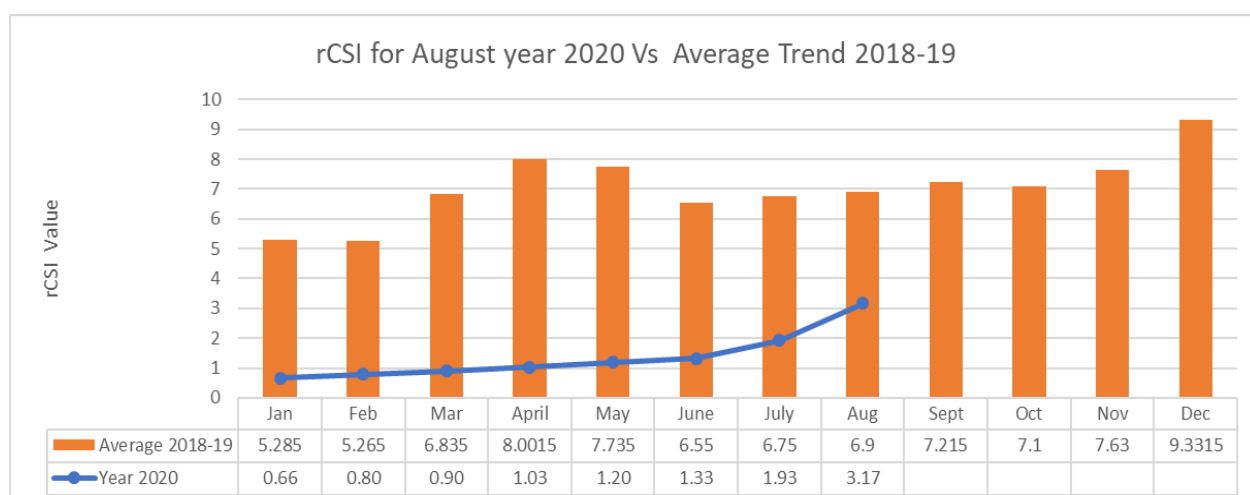


Figure 17 : Trend of CSI

- The highest CSI was recorded in the Marginal Mixed Farming zone at 7.3 followed by 1.4 in the Mixed Farming Zone while the Rain Fed Livelihood Zone recorded the least CSI of 0.8.
- The most commonly employed coping strategy mechanisms during the month of August were: - Obtaining of goods on credit, Reliance on less preferred and less expensive food.
- Some households employed livelihood based coping strategies such as sale of some household assets, spending of savings as well as borrowing of short term loans.

6.0 CURRENT INTERVENTIONS AND RECOMMENDATIONS

Ongoing Interventions

6.1 Food Intervention

6.1.1 Food intervention and cash transfers

- Kazi Mtaani through the County Commissioners Office of 380 youths in Tharaka South and 330 youths in Tharaka North for vulnerable families from July 2020 for six months till January 2020 earning Kshs 455 per day to caution those families against the effects of Covid 19.
- Cash transfer through the County Commissioners Office of poor and vulnerable 100 household in Tharaka South and 100 in North earning Kshs 1,000 per week from July 2020 to November 2020 to caution them against Covid 19 shocks.
- Cash transfer to vulnerable groups by the social services department of 3,862 elderly;153 disables;3,420 orphans and additional 1,000 people due to effects of Covid 19.
- Distribution by Tharaka Nithi County Government of 4Kg of wheat flour, 4Kg of maize flour and 1 litre of cooking oil to 340 households in Gatunga.
- Distribution by Tharaka Nithi County Government of 4Kg of wheat flour, 4Kg of maize flour and 1 litre of cooking oil to 153 households in Mukothima.
- Distribution by Tharaka Nithi County Government of wheat flour, maize flour and cooking oil in households in Tharaka South.

6.2 Non Food Intervention

Agriculture Sector

- Waving of tariffs and cess on all food products entering and leaving the county to caution farmers, retailers and consumers against the effect of Covid 19.

Livestock and veterinary

- Livestock pasture development in Tharaka North and South sub counties.
- Artificial insemination by the veterinary department at a subsidised price to farmers.
- Dairy farming of goats and cow by Upper Tana Natural Resource Management Programme and Livestock Department.
- Goats upgrading for milk and meat by Upper Tana Natural Resource Management Project.
- Upgrading of local chicken by Upper Tana Natural Resource Management Project.

Water

- Construction of Manduru earth dam in Gatunga Ward.
- Rehabilitation of Ura- Kathangachini and Kamacabi water project by the county Government and Water Trust Fund Agency.
- Extension of water pipe line from Marimanti to Maragwa by Water Services Trust Fund (WSTF).
- Re-construction of Kaibonce concrete dam by Kenya Climate Smart Agricultural programme.

6.2 Food Security Prognosis

- Main farming activities were threshing and marketing of green grams, pigeon peas and cow peas. Stock levels at household was normal from the long rain harvest. Market operation were normal since reopening in July and are recovering well from the Covid 19 shocks.
- Status of water sources was normal with a declining trend with household and Livestock watering distance still being within the normal ranges. This situation is likely to continue declining in the next 1 and a half month due to the ongoing long dry spell till mid- October.
- Food Stocks at households' level is likely to start decreasing from the next 1 month in all the livelihood zones due to finalisation of the harvesting.
- Markets operations are likely to remain stable for livestock due to presence of pasture and browse and resumption of market while prices of food commodities from within the county is likely to decrease or remain the same for the next 1 month due to the just concluded harvesting.
- Pasture condition is fair and the condition is likely to remain stable for the next one month due to supplement of livestock feed from crop residue leading to shorter grazing distance, increased milk production and good livestock body condition.
- Increased milk production is likely to lead to high milk consumption hence low malnutrition level amongst the under 5 years.
- Terms of Trade is fair and is likely to increase significantly in favour of livestock farmers and the trend is likely to continue for the next 1 month.
- Households in the County are likely to be Food sufficient in the next 2 months but the situation may worsen due to the effect of Covid 19 which might negatively affect income and food availability.

7.0 Recommendations (February to July 2020)

- The county Government and different stakeholders should continue to concentrate on Response towards the management of the effects of Covid 19 and other preparedness activities geared towards resilience to propel household towards food security.

Sector	Intervention	Target areas hotspot (Wards/Villages)	Beneficiaries
Agriculture	Provision of subsidised certified planting materials to farmers	Tharaka North and South sub counties	Farmers
	Provision of subsidised fertilizers to farmers	Tharaka North and South sub counties	Farmers
Water	Renovation of Earth Dams	Gankamba, Nyamboni, Kiaramara, Manduru and Ngaani	5,000 people 1,000 cows 10,000 goats 500 donkeys
	Repair of Rock Catchments	In Gatunga Ward: Mukuruti Kanyi, Manduru, Kiaramara, Muturu, Nchegei Rock Catchment	4,000 people, 500 cows, 2,000 goats, 1,000 sheep 200 donkeys
	Vaccination of Goats and sheep against CCPP	Marimanti ward, Kithigiri, Kibienga, Nkondi ward Kereria ,Gachugini	30,000 shoats
	Vaccination of Goats and sheep against sheep & goat pox	Kamanyaki, Kathangachini, Chakariga, Marimanti	35,000 shoats
	Vaccination of dogs against Rabies	Gatue ward, Mukothima ward	1000 dogs
Health and Nutrition	Provision of hand sanitisers, phase masks and installation of hand washing equipment at strategic high risk areas.	Tharaka North and Tharaka South Sub county.	Tharaka North and South residents
	Proper sensitisation and enforcement of covid 19 prevention standards in social places, restaurants, hotels, shops and businesses.	Tharaka North and Tharaka South Sub county.	Tharaka North and South residents
	Provision of food supplement for malnourished children and mothers	Tharaka North and South	20 facilities each receiving 2 bags of 90kg fortified Health supplements.
Coordination	Conduct 7 CSG meetings at county and Sub County level	Tharaka North & South	40 members