

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



A Vision 2030 Flagship Project



December 2020 EW Phase

Drought Status: NORMAL



Drought Situation & EW Phase Classification

Biophysical Indicators

- Rainfall continuation since onset has been good. An average of 68 mm was received in during the month of December which was 80% of the normal however, temporal distribution was uneven which greatly affected the yield of cereal crops. Status of water sources reduced but still remained within the normal range.
- The overall vegetation cover across the County was normal compared to the historical vegetation condition for December. Pasture condition showed some reduction but the condition remained within the normal range of good to fair.

Socio Economic Indicators (Impact Indicators)

Production Indicators

- Livestock body condition was fair while food stocks at household levels were depleting due to diminishing stocks from the long rains harvest. However, most food stocks are sourced from markets which are operational.

Access Indicators

- Livestock and commodity prices were fairly stable with marginal changes due to the normal market forces.
- Household water distance increased due to reduction in recharge of water sources due to reduced rainfall but remained within the normal range.
- Milk production and consumption was below normal and decreased due to reduction in pasture. However, malnutrition level remained low due to food stocks especially pulses in selective households.

Utilization Indicators

- Following all the above prevailing conditions, the overall drought phase in December was normal with an improving trend.

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	40.55	>35
Water Sources	Normal	Normal
Production Indicators	Value	Normal Ranges
Livestock Migration Pattern	No Migration	No Migration
Livestock Body Conditions	Fair	Good
Milk Production	0.5Litre	Above 1.47 of a Litre
Livestock deaths (from drought)	No death	No death
Access Indicators	Value	Normal
Terms of Trade	137.1	Above 98
Milk Consumption	0.4Litres	Above 1.53 Litre
Water for Households	Normal	Normal
Utilization indicators	Value	Range/Value
Coping Strategy Index (CSI)	7.73	Below 9.33
Food Consumption (Acceptable FCS)	88.33%	Above 34.15%
MUAC	2.6	Above 4.9

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 December was characterised with dry condition till the fourth week when rainfall was received for an average of two days. Rainfall temporal distribution was uneven which negatively affected the yield of cereal crops such as sorghum, millet and maize.
- An average of 68 mm of rains was recorded during the month of December which was below normal compared to the long term average of 85mm during the same period. Figure 1 below shows the rainfall trend for 2020 compared to the long term Average.

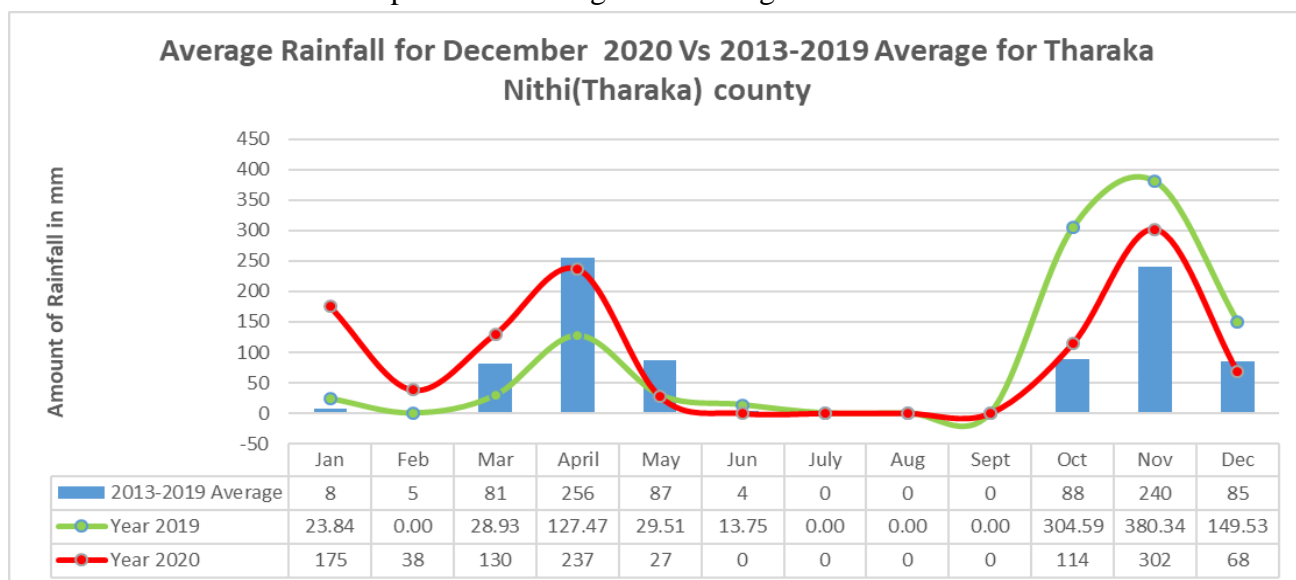


Figure 1 : Rainfall trend for 2020 Vs 2013-2019 Average

Tharaka Rainfall Distribution for December 2020

Rainfall for the month of December was unevenly distributed in time but evenly distributed in space. This affected the yield of most cereal crops such as sorghum, millet and maize since the expected amount of rainfall was not received during grain filling. However, pasture production was positively affected. Most of the rainfall was received in the last week of December for an average of two days as follows: Chakariga received 89.5mm for 3 days, Kathangachini received 78.6mm for 3 days, Karocho received 70.6mm for 3 days, Marimanti received 63.5mm for 3 days, Kamanyaki received 48.2 mm for 2 days, Tunyai received 46.9mm for 3 days, Irunduni received 41.6mm for 2 days while Mukothima received the least amount of 34.8 mm for 2 days as shown by figure 2 below.

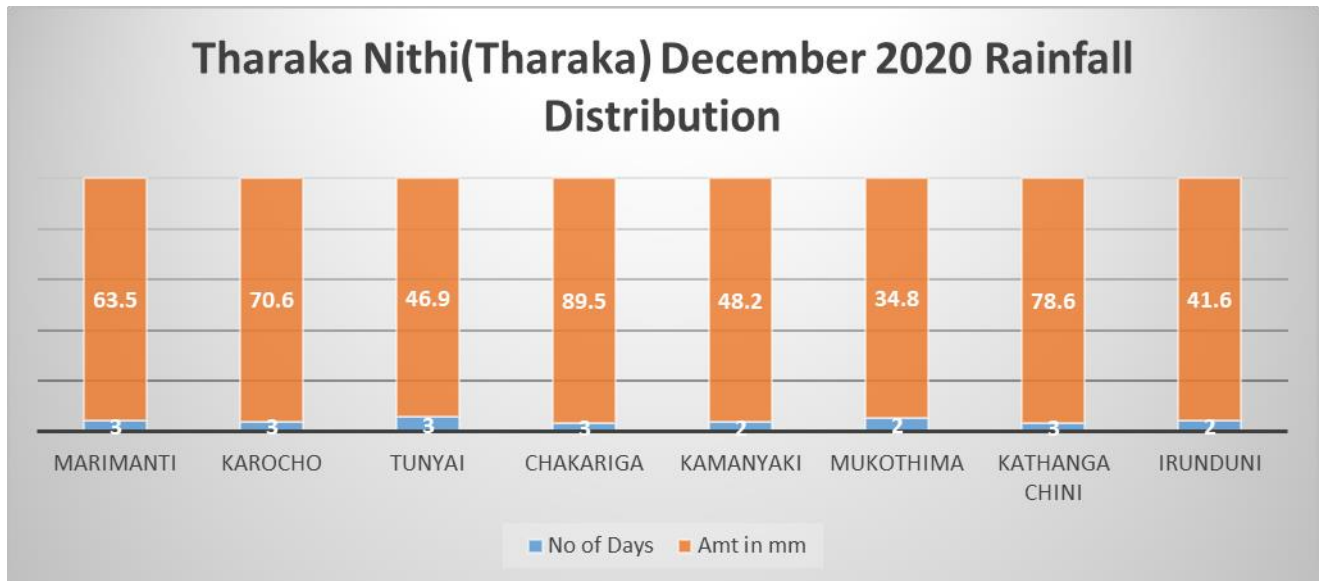


Figure 2 : Tharaka Nithi (Tharaka) November Rainfall Distribution

2.0 IMPACTS ON VEGETATION AND WATER

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 the month of December was 40.55 from 34.46 in November indicating an overall normal vegetation greenness.
- However, some localized areas of the county such as parts of Gatunga ward in Tharaka North Sub-County such as Gaceuni, Kiamiramba, Mpuku, Nkiruni and Maragwa areas which did not receive any rainfall still showed below normal vegetation cover.
- Pasture and browse increased across all the livelihood zones due to the ongoing short rains except in few localised areas mentioned above.
- The matrix in figure 2 below shows vegetation cover classification based on the drought phases while figure 3 shows the trend of vegetation cover in terms of vegetation condition index for Tharaka Nithi (Tharaka) County.

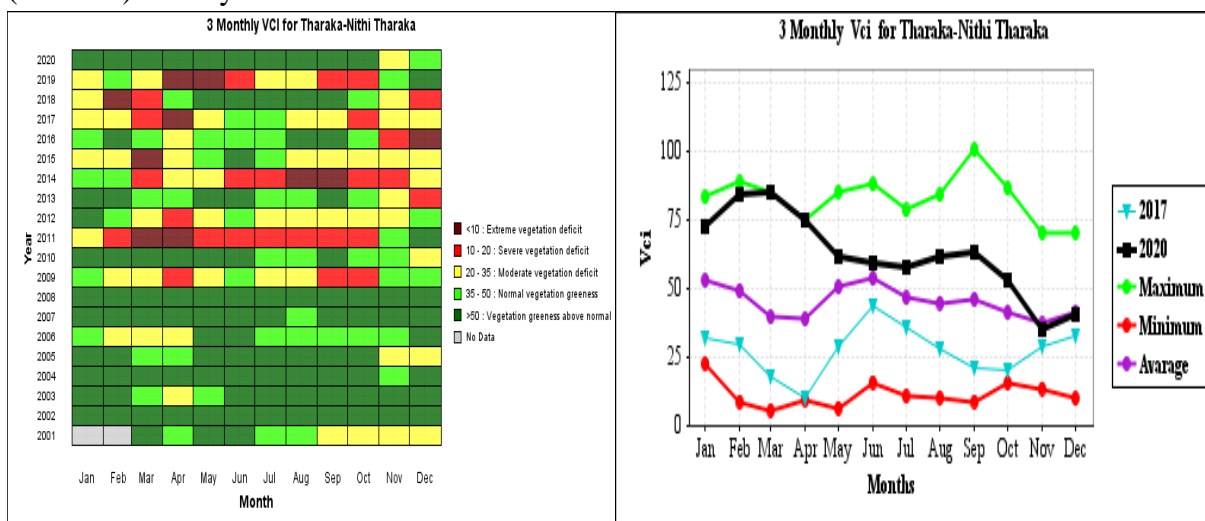


Figure 3: Matrix of VCI Classification

Figure 3: Chart of VCI Trend

Table 1: December 2020 Vs November 2020 VCI (3M)

ADMINISTRATIVE UNITS		VCI as at 30 th November 2020	VCI as at 31 st December 2020
County	County/Sub County		
Tharaka Nithi	County	41.67	50.41
	Tharaka	34.46	40.55
	Chuka Igambang'ombe	51.2	63.93
	Maara	53.02	65.31

2.2 Natural Vegetation and Pasture Condition

Pasture Condition

- Pasture quantity and quality was good to fair across all the Livelihood zones during the month of December due to the ongoing short rains, the condition is expected to continue improving. However, some parts of the Marginal Mixed Farming Livelihood Zones had below normal pasture such as Gaceuni, Kiamiramba, Mpuku, Nkiruni and Maragwa areas.
- Pasture condition showed some slight improvement from that of the previous month and the condition is expected to continue improving.

Browse Condition

- Browse condition in terms of quantity and quality was good across all the livelihood zones in the month of November with improving trend from that of the previous months.
- This upward trends is due to the ongoing short rains which is expected to continue till the end of December.

2.2 Water Sources and Availability

2.2.1 Main Sources of Water

- The main sources of water for livestock and domestic use in Tharaka Nithi County for the month of December was: Rivers, Boreholes, Traditional River wells and Pans & Dams as shown by figure 5 below.

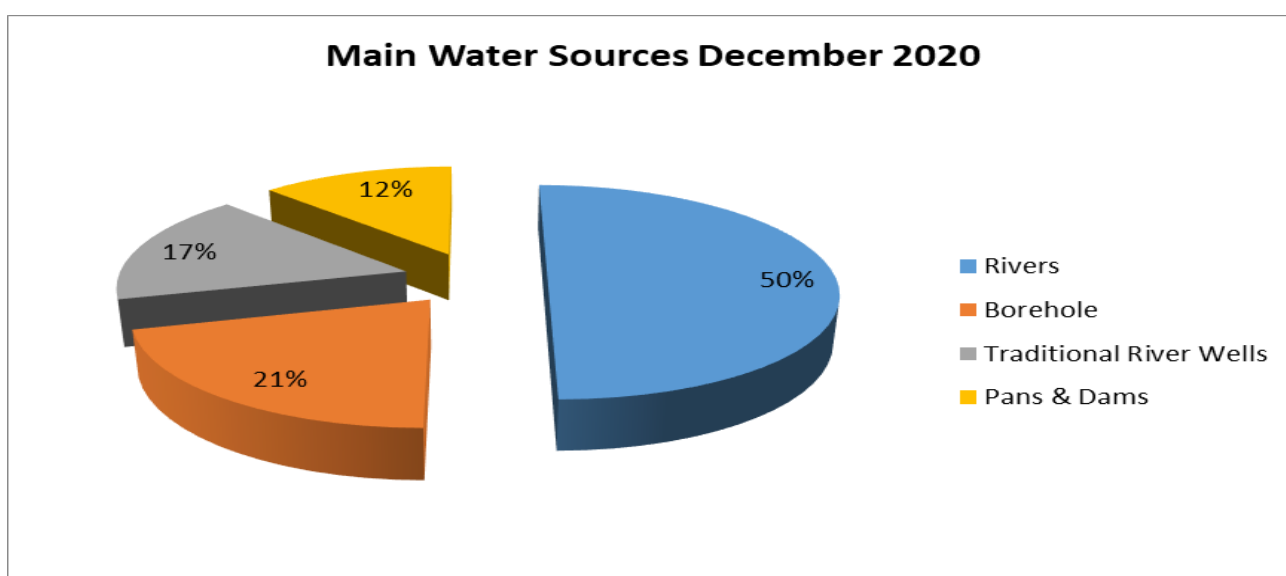


Figure 4: Main Water sources Tharaka Nithi County

2.2.2 State of Water Sources

- The state of water sources for the month of December was still within the normal range. The trend remained stable in December due to the performance of the short rains which was above normal in the months of October and November. The water recharge level both for the surface and underground sources was above the normal range which led to flooding and increased erosion in some areas which led to increased contamination of water in some areas.
- Status of water sources across all the Livelihood Zones was ranked as good which is at index 6 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 increased from 3.3Km in November to 4.8Km in December. This increase in Household water distance was attributed to the reduction in the amount of rainfall received in December from that of the previous month of November which led to a reduction in recharge of water sources leading to increased distance. Household return water distance in Marginal Mixed Farming Livelihood Zone was 5.2 Km, 3.8 Km in Mixed Farming Livelihood Zone while the Rain Fed Livelihood Zone had the least household water distance of 1 Km.
- The average distance of household access to water was 84.62% higher than the long-term average of 2.6 Km for the month of December.

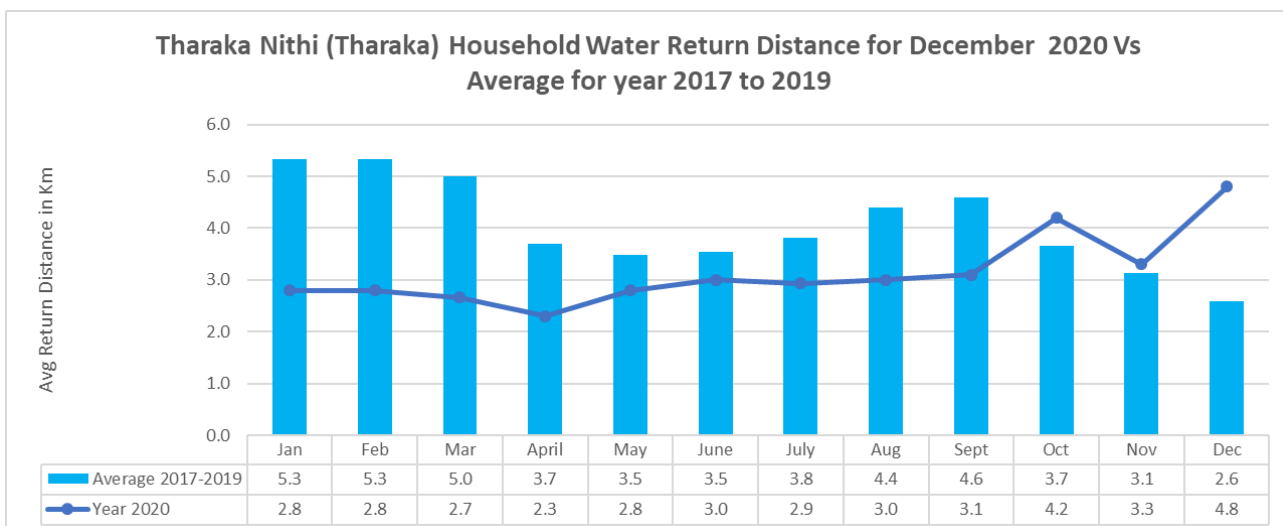


Figure 5: Household Water Distance

Livestock Access to Water

- Average return water distance from grazing area increased from 3.3 Km in November to 4.1 Km in December. The increase in livestock access to water distance was attributed to a reduction in recharge level of water sources leading to reduced access of livestock to water.
- The longest return water distance to grazing areas was recorded in the Marginal Mixed Farming Zone at 5.6 Km, followed by Mixed Farming Zone at 3 Km while Rain Fed Cropping Zone recorded the least distance of 2 Km.
- The average return water distance from grazing areas was 46.43% higher than the long term average distance of 3.3 Km for this time of the year.

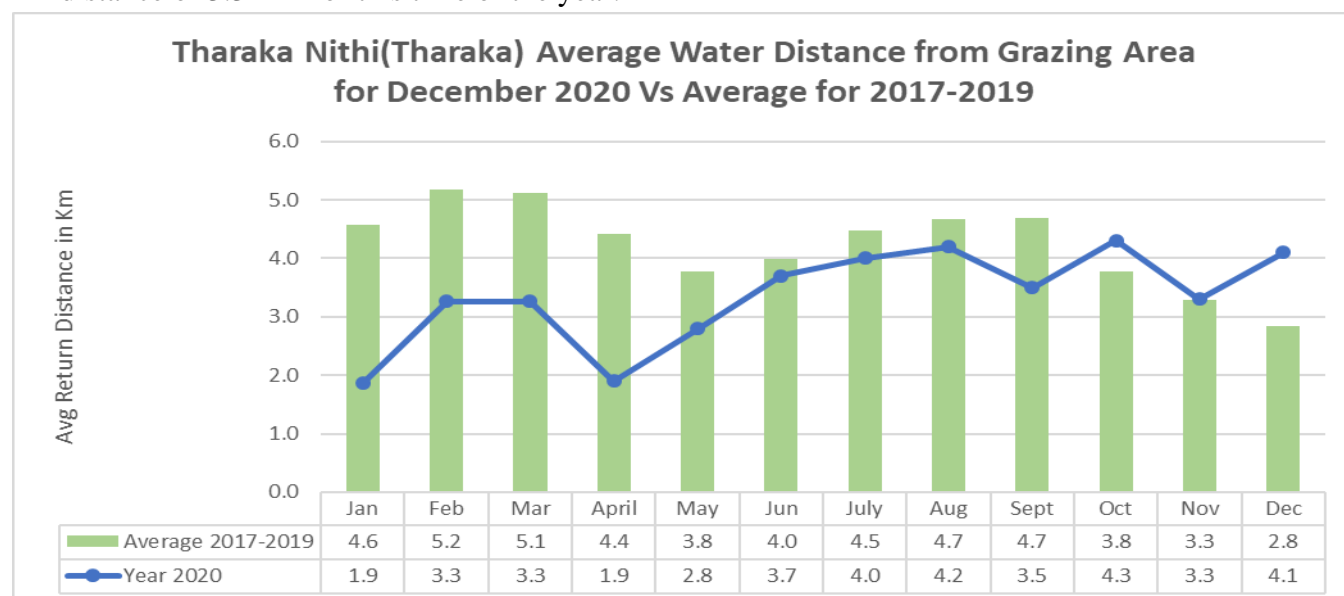


Figure 1: Grazing Distance for Livestock

3.0 PRODUCTION INDICATORS

3.1 Livestock Production

3.1.1 Livestock Body Condition

- Livestock body condition for both cattle and shoats was good to fair across all the livelihood zones. The good livestock body condition could be attributed to good pasture and browse condition across most of the livelihood Zones.
- The Livestock body condition in December for cattle and shoats was rated at index 8 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. However, there was a total of 3 cases of rabies reported 1 each in Gatue, Kathangachini and Maragwa in Tharaka North in goats.
- Cases of Tick borne diseases were reported in goats (i.e. 22 cases of Anaplasmosis, 1 case of babesiosis, and 2 cases of heart water in Marimanti; 1 case of East Coast Fever in Nkondi).
- About 10 cases of trypanosomiasis were reported for cattle in Marimanti and Nkondi wards.

3.1.3 Milk Production

- The average Milk production per household per day decreased from 1 litre in November to 0.5 of a litre in December. The decrease in milk production could be attributed to poor pasture in some parts of marginal mixed Farming Zones such in Gatunga ward such as Gaceuni, Kiamiramba, Mpuku, Nkiruni and Maragwa areas.
- Marginal Mixed Farming livelihood Zones had an average production of a litre per household per day while the other livelihood Zones recorded less than a litre per day. Milk production per household was 66 percent lower than the 3-year average of 1.47 litre per household per day for this time of the year.

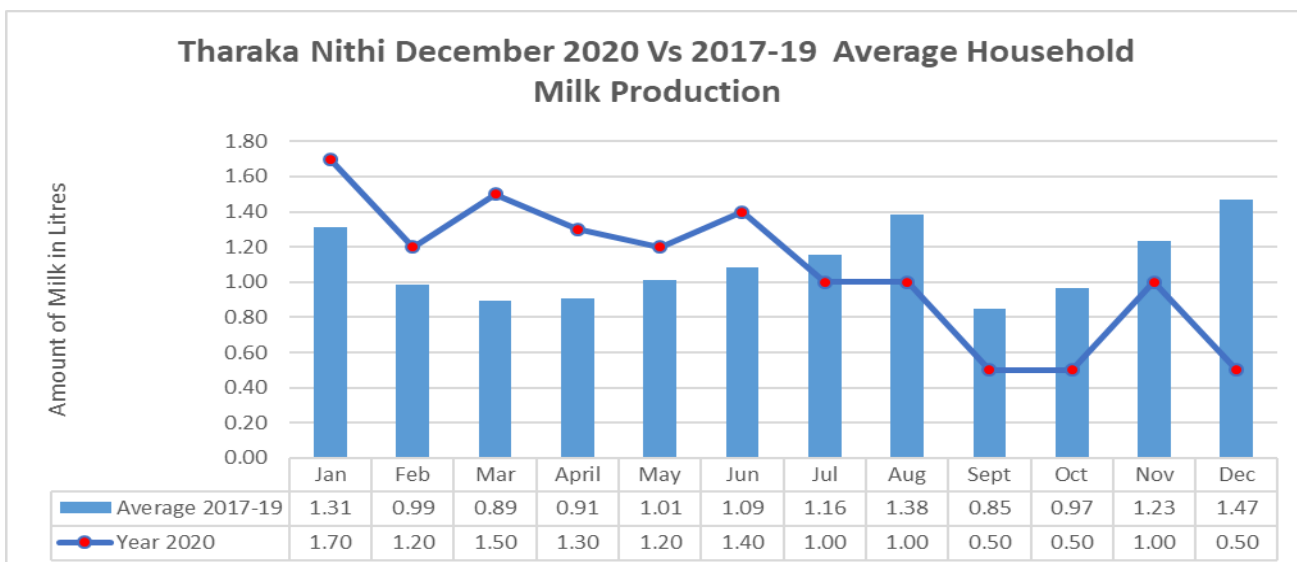


Figure 6 : Milk Production Trend

3.2 Crop Production

3.2.1. Timeliness and Status of Crops

- Farming activities during the month of December was pest control by spraying of millet, green grams, sorghum and cow peas among other crops.
- Most of the crops especially cereal crops were at the knee while a few were at the flowering and tarsling stage of development. Most legume crops were at the flowering and podding stage of development.
- Farmers were harvesting tree crops such as mangoes which were then availed at the market.

3.2.2. Pests and Diseases

- There were few reported cases of pests and diseases since there were only few crops in the farms i.e. the tree crops which are less prone to pests and diseases.
- The main pest reported were the stalk borers which were mainly affecting the cereal crops such as maize in Karocho and parts of Tunyai.

4.0 MARKET PERFORMANCE

4.1 Livestock Prices

4.1.1 Cattle Prices

- The average cattle price decreased from Kshs. 26,654 in November to Kshs. 24,196 in December which was almost the same as of the previous month. There was good livestock body condition due to improvement in pasture from the ongoing short rains. The Marginal Mixed Farming livelihood Zone had the highest average price of Kshs 31,625; the Rain Fed Cropping Livelihood Zone had the price of Kshs 21,750 while the Mixed Farming Livelihood Zone had the least price of Kshs 16,700. The current price was 10.65 percent higher than the three-year average of Kshs 21,867.

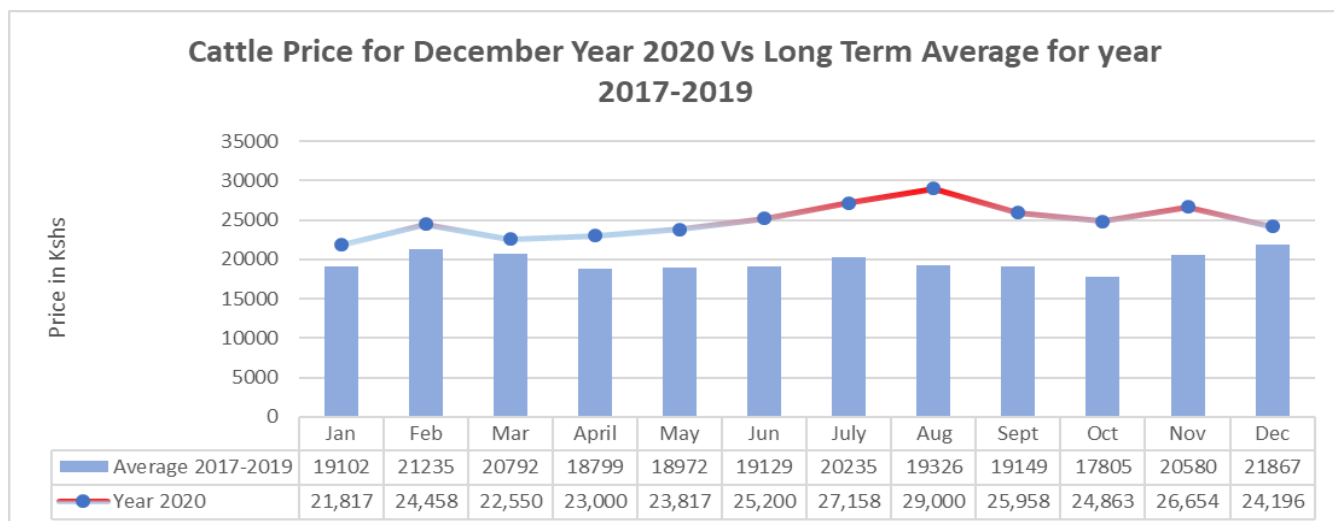


Figure 7: Cattle Price Trend

4.1.2 Goat Prices

- The average goat price increased from Kshs 4,142 in the month of November to Kshs 4,854 in December. The increase in goat price was attributed to good browse which led to improved goat's body condition and increased demand due to the December festivity season.
- The Rain Fed Cropping Livelihood Zone had the highest price of Ksh. 4,750; Marginal Mixed Farming Livelihood Zone recorded the price of Kshs 4,700 while the Mixed Farming Zone recorded the lowest price of Ksh. 3,842.
- The average goat price was 29.02 percent higher than the three-year average of Ksh 3,762.

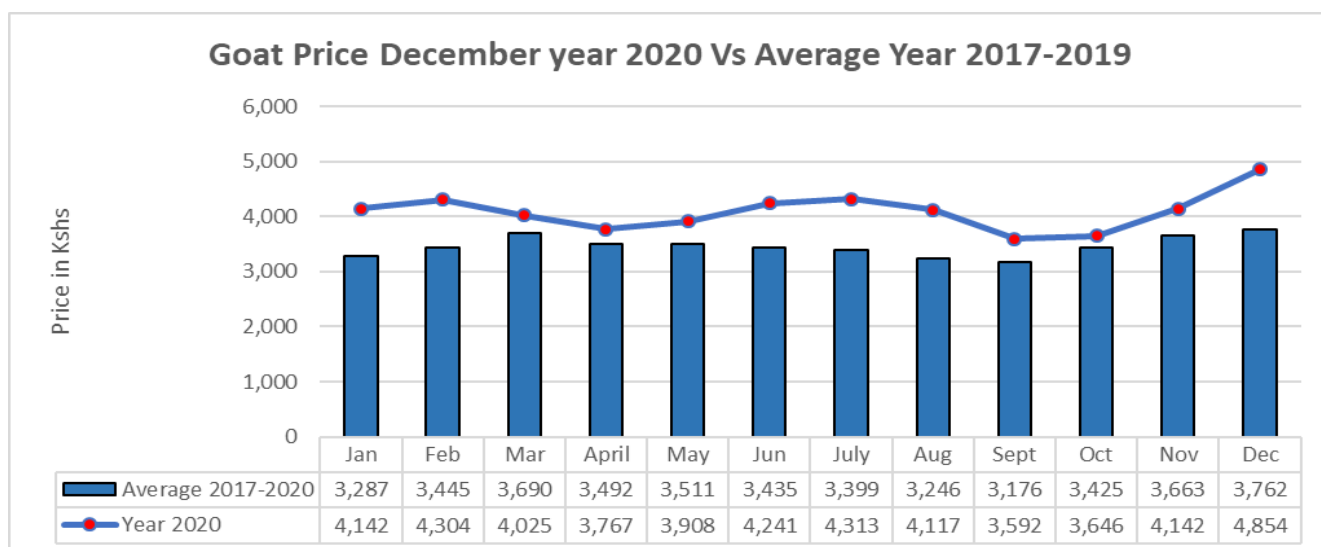


Figure 8: Goat's Price Trend

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 in December was Kshs 35 per Kg from Kshs 35 per Kg in November. This stable maize price could be attributed to constant supply of maize from outside the county where there is still high stocks from the recent harvests.

- Maize price was Kshs 35 per Kg in the Mixed Farming Livelihood Zone, Kshs 35 per Kg in the Marginal Mixed Farming while the Rain Fed Livelihood Zone still recorded the same price of Kshs 35per Kg.
- The average maize price was 12.5% lower than the three-year average price of Kshs 40 per Kg in December.

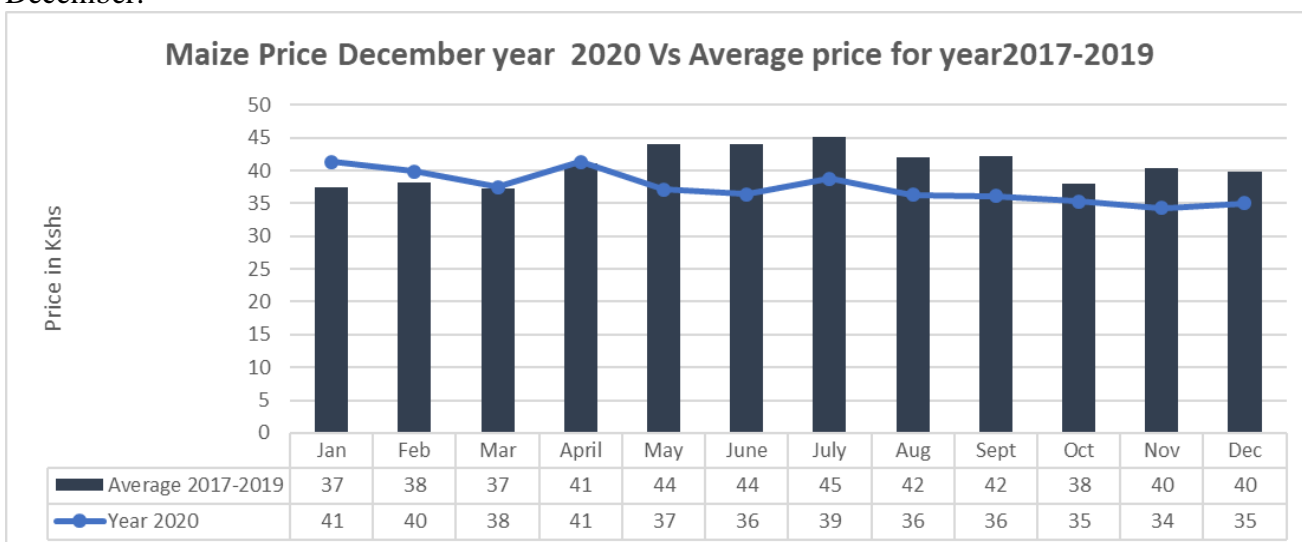


Figure 9: Maize Price Trend

4.2.2 Millet Price at Market Level

- The average market price of millet increased slightly from Kshs 50 per Kg in November to Kshs 51 per Kg in December which was also lower than the long term average. The increase in millet price could be attributed to a decrease in millet supplies to the market hence an upward trend in price.
- The Mixed Farming Livelihood Zone recorded the highest market price of Kshs 62 per Kg followed by the Rain Fed Livelihood zone at Kshs 60 per Kg while the Marginal Mixed Farming Livelihood Zone recorded the least price of Kshs 40 per Kg.
- The millet price was 21.54 percent lower than the long-term average price of Kshs.65 per Kg for the month of December.

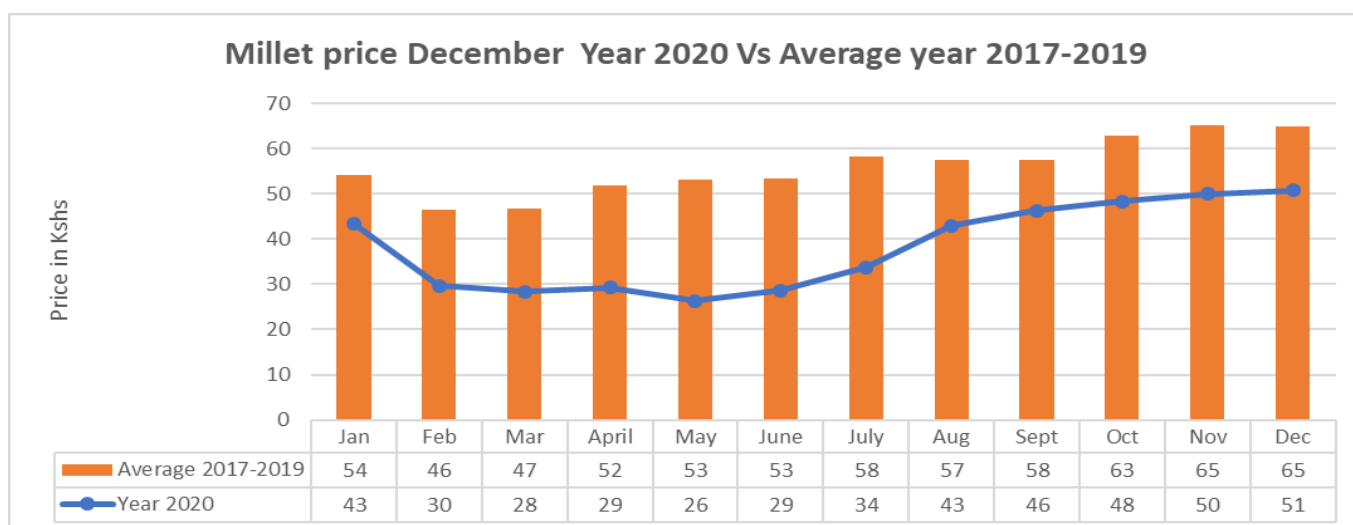


Figure 10 : Millet Price Trend

4.2.3 Terms of Trade (ToT)

- The Terms of Trade increased from 120.9 in November to 137.1 in December which was attributed to a higher increase in goat price against a slight increase in maize price.
- The highest ratio was recorded in the Rain Fed Cropping Zone at 135.71; followed by Marginal Mixed Farming Zone at 134.29; while Mixed Farming Zone had the least term of trade ratio at 109.77. The term of trade for the period under review was 40.51% higher than the three year average value of 98 during the same period.

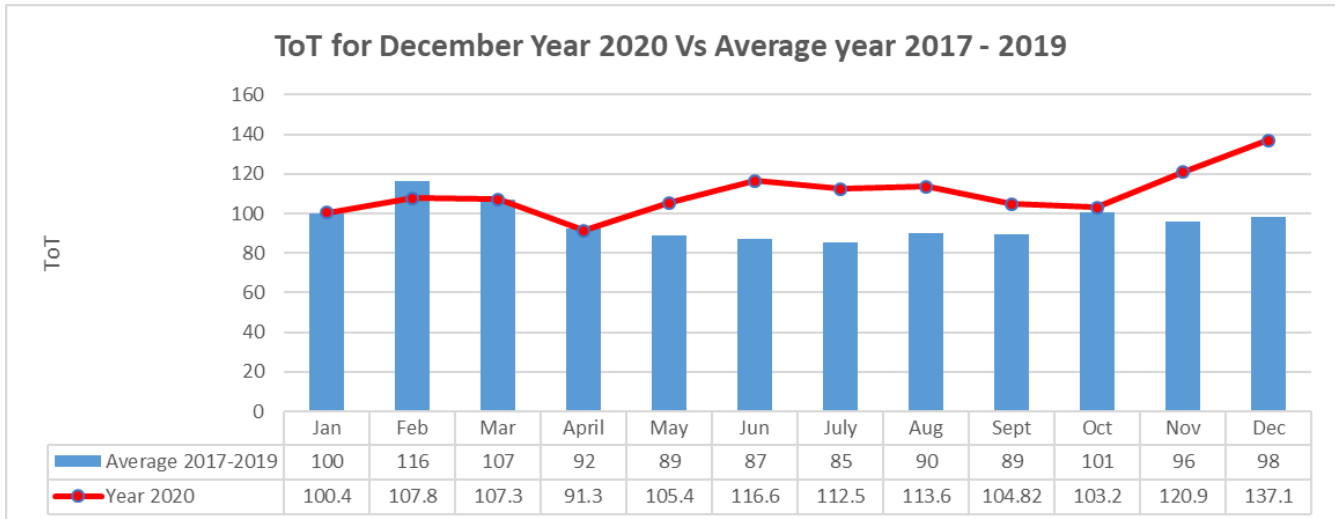


Figure 11: Term of Trade

4.2.4 Income sources

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

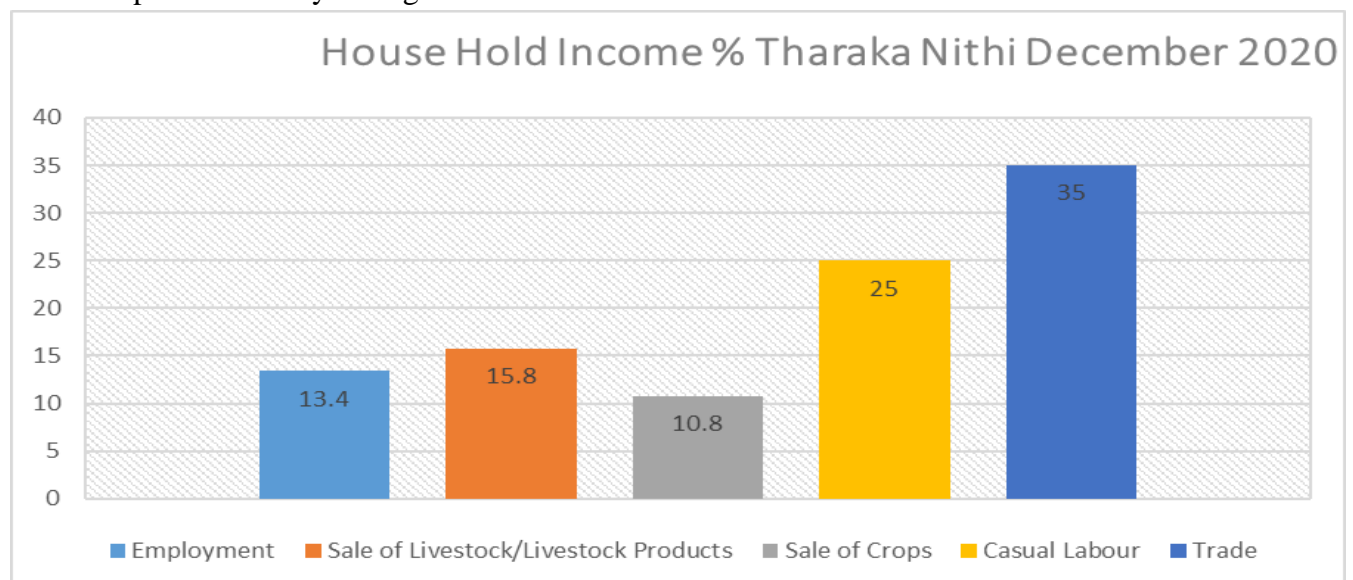


Figure 12 : Tharaka Nithi Percentage Household Income

5.0 FOOD CONSUMPTION AND NUTRITION STATUS

5.1.1 Milk Consumption

- The average milk consumption per household per day in the month of December was 0.4 from 0.5 of a litre per household per day in November. This was almost the same as of the previous month. The low milk consumption could be attributed to the low milk production during this time of the year.
- The average milk consumed was 73.86 percent lower than the 3-year average of 1.53 litre.

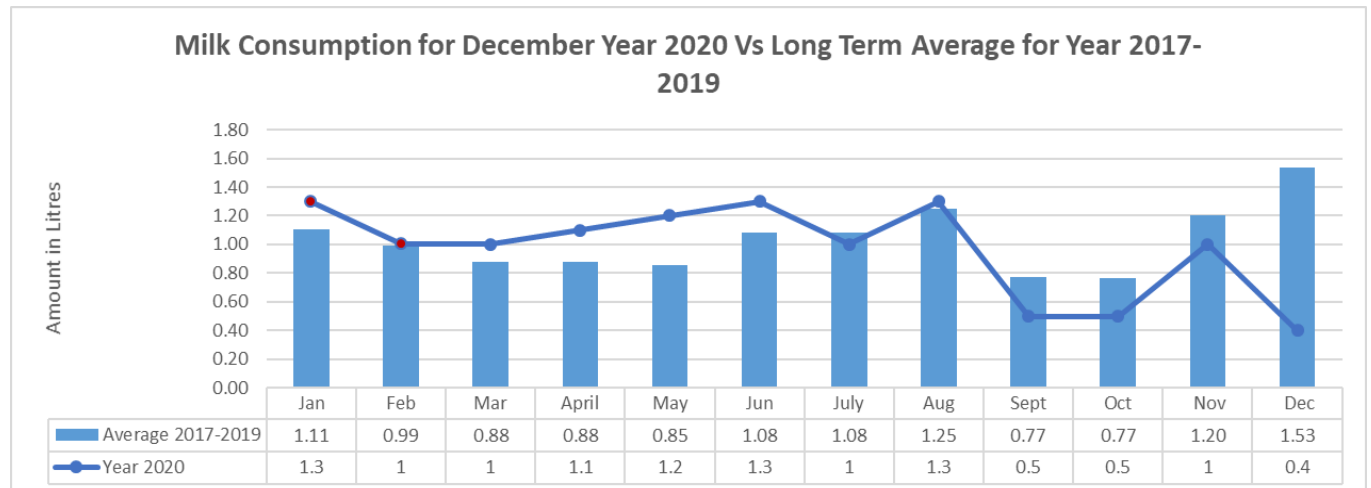


Figure 13 : Milk Consumption Trend

5.1.2 Food Consumption Score

- Proportion of households with acceptable Food Consumption Score increased from 81.67% in November to 88.33% in December as shown by the graph in fig. 15 below. The percentage of households with acceptable FCS in December was attributed to increased income which led to improvement in House hold food security.
- The proportion of household with acceptable FCS in December were higher than the long-term of 34.15%.

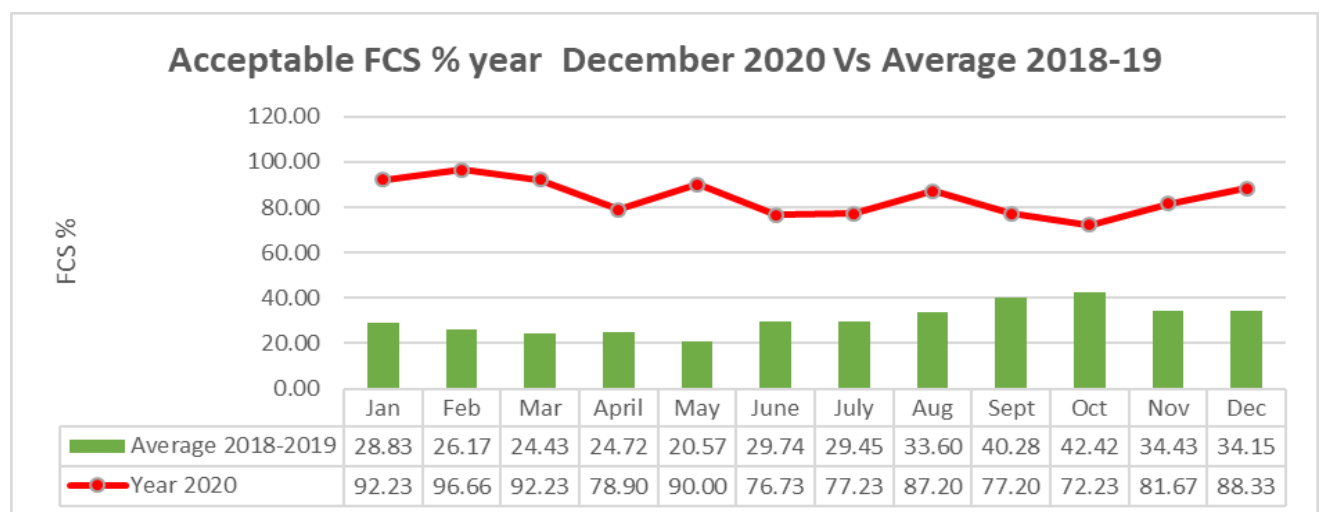


Figure 14: Trend of the Proportion of HHs with Acceptable FCS

- A higher number of Food Stressed Households were in the Rain Fed Cropping Livelihood Zone at 26% followed by Marginal Mixed Farming Livelihood Zone at 15% while the least food stressed households were reported in the Mixed Farming Livelihood Zones as shown by figure 15 below.

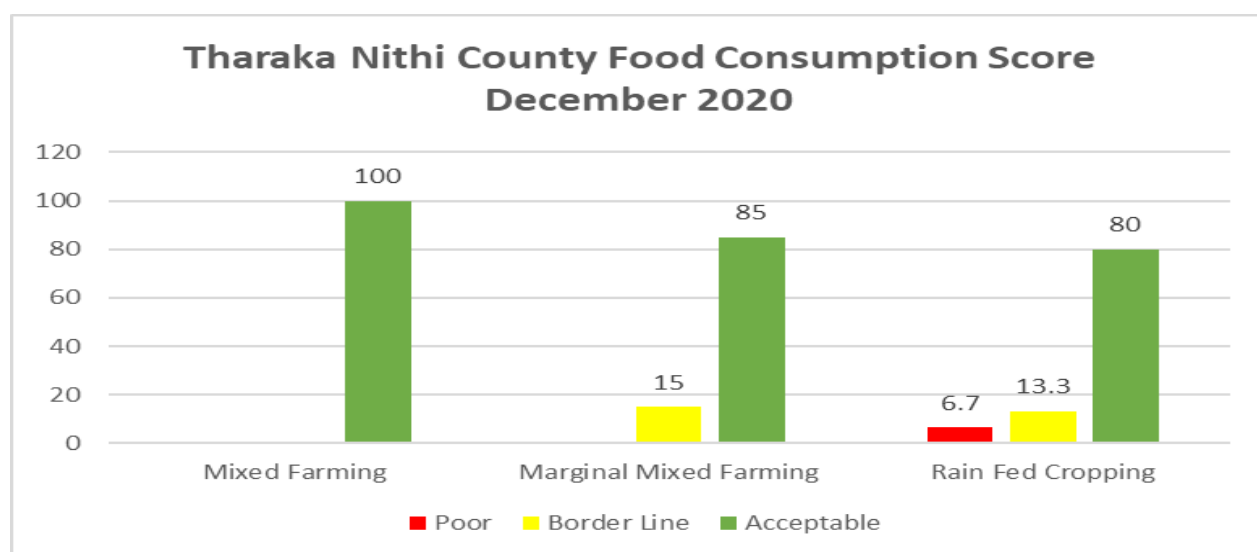


Figure 15: Food Consumption Score Chart

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
September	77.20	20	2.8	22.8
October	72.23	24.43	3.33	27.77
November	81.67	17.2	1.13	18.33
December	88.33	9.43	2.23	11.67

- 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

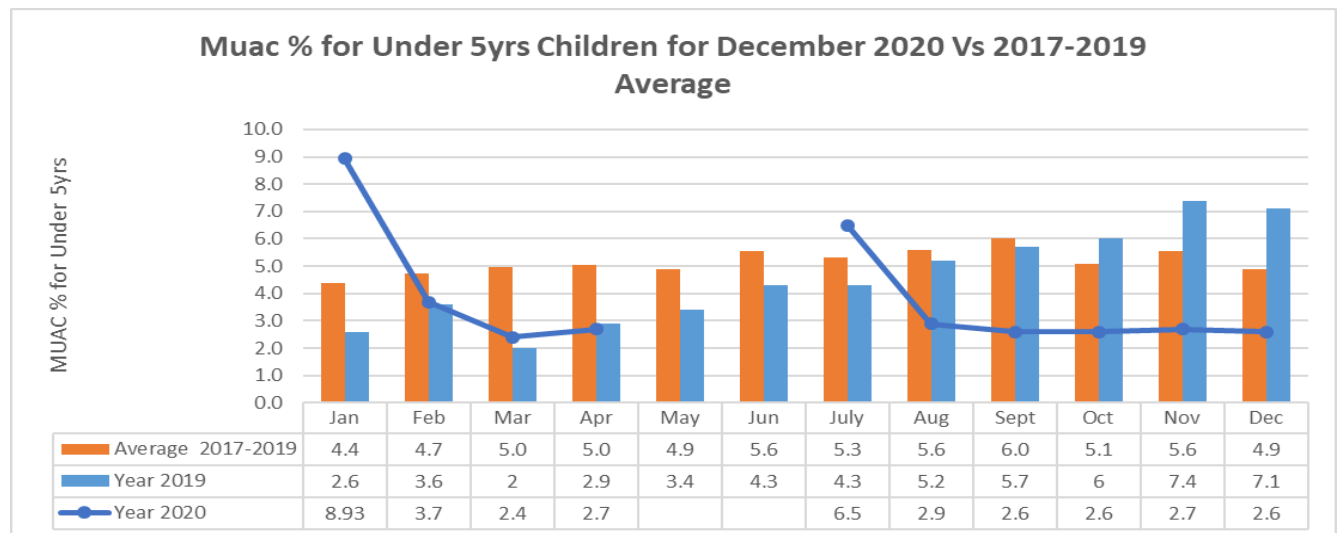
5.2.1 Health and Nutrition Status

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.

MUAC

- The proportion of malnourished children of 6 to 59 months with MUAC of less than 135mm was 2.6% in December from 2.7% in November which was almost the same. This could be attributed to within normal range of food security level at household compared to the long term ranges.
- The low proportion of the number of malnourished children was lower than long term average of 7.1%.



5.2.3 Coping Strategy Index

- The Coping Strategy Index (CSI) increased from 7.30 in November to 7.73 in December which was almost the same as of the previous month. The increase in CSI indicated an increase in household stress to obtain food or money to buy food during the month of December from that of the previous month.
- The CSI for December 2020 was lower than that of 2018-19 average for December during the same period.

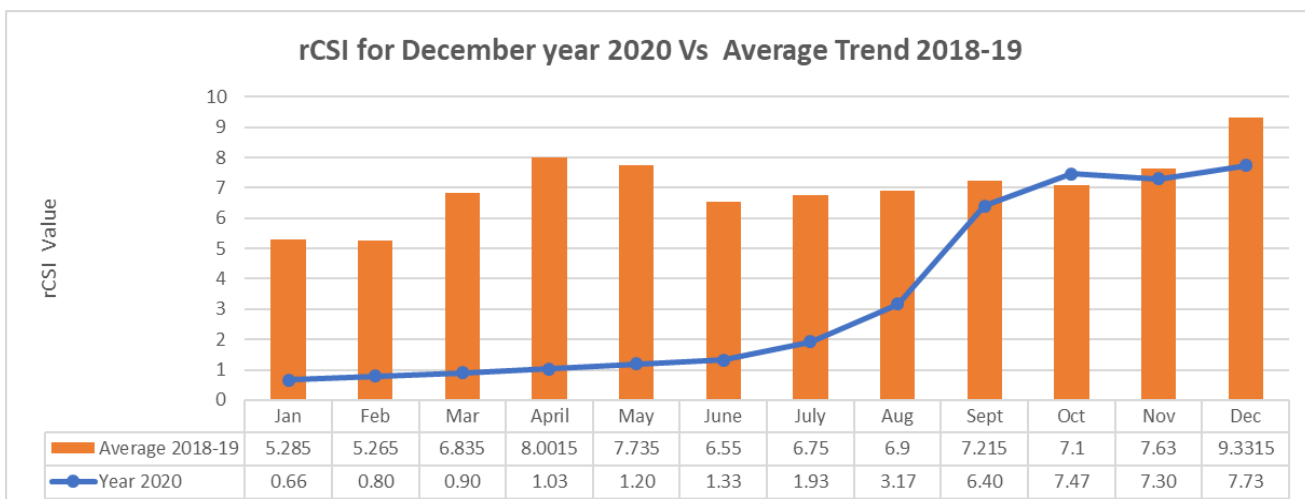


Figure 16 : Trend of CSI

- The highest CSI was recorded in the Marginal Mixed Farming zone at 17.3 followed by 4 in the Mixed Farming Zone while the Rain Fed Livelihood Zone recorded the least CSI of 1.9.
- The most commonly employed coping strategy mechanisms during the month of December 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

- Distribution of 82 bags of 90 Kgs of maize and 51 bags of 90 Kgs of beans for Grade 4 and Standard 8 in 37 primary Schools in Tharaka South by International Aid Services Kenya(IASK).
- 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 2021 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

- Disilting of Gankamba earth dam in Kamwathu sub location and Maragwa Muguna earth dam in Kamaguna sub location by International Aid Services Kenya (IASK).
- Excavation of six farm ponds: 3 in Kamwathu and 3 in Kamaguna (each approximately 28m by 28m with a depth of 2m i.e. 1,568m³) by International Aid Services Kenya.
- Construction of 2 masonry tanks at Chakariga Girls Secondary School by the National drought Management Authority (NDMA).

Livestock and veterinary

- Supply of acaricides by KENTEC in collaboration with veterinary department in order to control vectors to organised farm groups.
- Lumpy Skin Disease vaccination targeting over 20,000 cattle in Tharaka South Sub County.
- Foot and Mouth Disease vaccination targeting over 20,000 cattle and 5,000 pigs in Tharaka South Sub County.
- Rabbits vaccination targeting 2,000 dogs and 500 donkeys 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

- During the month most cereal crops were at flowering and grain filling stage of development while pulses were podding. Some Irrigated crops such as green maize were being harvested both for food and for sale but it was only from a small portion of farmers. Market operation were normal and most crops were been sourced from the markets.
- Status of water sources was normal with an improving trend due to significant amount of the short rains with household and Livestock watering distance being within the normal ranges. The situation is likely to continue improving for the next 1 months till the end of January.
- Food Stocks at households' level is likely to continue decreasing in the Marginal and Rain Fed Livelihood Zone for the next 1months till the short rains harvest commences in the 3rd decade of January 2021 to February in the same year.
- Markets operations are likely to remain stable for livestock due to presence of fair pasture and browse and resumption of market while prices of food commodities is likely to increase for the next 1 month till the beginning of short rain harvesting.

- Pasture condition is fair and the condition is likely to remain stable for the next 2 months due to regenerated forage from the ongoing short rains 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 5years children.
- 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 2 months.
- Households in the County are likely to be Food sufficient in the next 2 months due to the commencement of the short rain harvest which might positively affect income and food availability.

7.0 Recommendations (July 2020 to February 2021)

- 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.

Sub County	Intervention	Ward	No. of beneficiaries	Proposed Implementers	Required Resources	Available Resources	Time Frame
Agriculture Immediate interventions							
Tharaka North	Provision of relief food	Gatunga Mukothi ma	5000	County and National Government	food	Technical staff	immediately
Tharaka South and North	Provision of subsidized planting inputs	Chiakari ga, Marimanti,, Nkondi, Mukothi ma, Gatunga	16000	County and National Government	Fertilizers Seeds chemical s	Technical staff	By end of September 2020
Agriculture Medium term/Long Term interventions							
Tharaka South	Construction of NCPB store	Kanyange	10000	MOA/STAKEHOLDERS	Capital land labour	Land	2 YRS
Livestock							
Tharaka South	Community sensitization on Livestock feed preservation and controlled grazing	Tharaka south	3,500 farmers	NDMA, County government, National Government and livestock department	Funds, fuel and personnel,	Personnel	2months
Tharaka south	Upgrading of local goats,	Nkondi, Marimanti	2400 farmers	County Government	Funds, fuel and	Personnel	3 years

	cattle and chicken	chiakariga		t, UTaNMP KCSAP, Livestock Production and NDMA	personnel,		
Tharaka South	Vaccination of animals (goats, sheep and cattle) against RVF	Tharaka south	4,500 farmers	NDMA, County government and veterinary department	Vaccines, funds, fuel, vehicles and personnel	Personnel	2months
Tharaka Nithi	Tharaka North& South	Fodder production	300 farmers	TNCG Livestock department	Personnel planting material (seeds), fuel 200ltrs & funds Ksh 200,000	Personnel	2years
Water							
Tharaka North	Capacity building on irrigation water management and COVID 19 management response	Tharaka North	1200	Irrigation DVPT, MOH, NDMA	funds	Personnel	12 months
Water -Medium and Long Term recommended Interventions							
Ngoaka-Ntoroni irrigation project	Farmers organization and COVID 19 intervention	Gatithini	268 farmers	Irrigation Development	funds	Personnel	24 months
Health							
Tharaka	Vitamin a supplementation	All wards	All children under 5yrs	M O H	funds	Personnel	Continuous
Tharaka	Zinc supplementation	All wards	All children under 5yrs with diarrhoea	M O H	funds	Personnel	Continuous

Tharaka	Management of acute malnutrition (imam)	All wards	All children with malnutrition	M O H	funds	Personnel	Continuous
Tharaka	IYCN Interventions (EBF and complementary Foods)	All wards	All children under 5yrs	M O H	funds	Personnel	Continuous
Tharaka	Iron Folate Supplementation among Pregnant Women	All wards	All pregnant women	M O H	funds	Personnel	Continuous
Tharaka	Deworming	All wards	All children under 5yrs	M O H	funds	Personnel	Continuous

Education Recommended

Food Security Related	Tharaka South and Tharaka North	ESMP	37	8093	IAS	Retention	6 months
		HGSM	13	2171	GOK	Retention	Long term
		Water Tanks	10	2100	NDMA	Hygienic safe drinking water	3 months
Covid-19 Related	Tharaka North Tharaka South	Face masks	172	35,618	GOK	Reducing spread of COVID 19	Short term 6 months
		Fumigation of school building	172	35,618	GOK	Prevent COVID 19	3 months
COVID-19 Related	Tharaka North Tharaka South	Fumigation	62	16805	County Government MOE	Prevent COVID 19	November – December 2020
		Hand Washing Facilities	62	16805	MOE	None	August-December 2020
		Sanitizers	62	16805	MOE	None	August-December 2020