

National Drought Management Authority
THARAKA NITHI COUNTY (THARAKA)
DROUGHT EARLY WARNING BULLETIN FOR JUNE 2021



A Vision 2030 Flagship Project



June 2021 EW Phase

Drought Status: NORMAL



Drought Situation & EW Phase Classification

Biophysical Indicators

- No rainfall was recorded in the month of June which was normal compared to the normal range of 80- 120%. Status of water sources was stable and within the normal range due to normal recharge level during the long rain season. However, there was disruption of water supply due to vandalism and breakages especially for piped water system due to construction works.
- There was a decline in contamination of rivers due to decrease in pollution of rivers which are the main source of piped water systems in towns and major trading centres such as Marimanti. The overall vegetation cover across the County showed remarkable improvement due to enhanced long rain season which led to increased regeneration of pasture and browse.

Socio Economic Indicators (Impact Indicators)

Production Indicators

- Livestock body condition was fair to good while food stocks at household levels was normal due to onset of the long rains harvest. Markets operation was normal for livestock but showed a decline for commodities due to diminishing stocks of cereals.

Access Indicators

- There was a general decline of both Livestock and commodity prices due to high demand for income used as school fees. Household water distance was normal due normal status of water sources. Milk production and consumption was within the normal range.

Utilization Indicators

- Following all the above prevailing conditions, the overall drought phase in June was normal and the condition was improving.

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	61.13	>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 Litre	Above 1.27 of a Litre
Livestock deaths (from drought)	No death	No death
Access Indicators	Value	Normal
Terms of Trade	115.1	Above 109
Milk Consumption	1 Litres	Above 1.27 Litre
Water for Households	Normal	Normal
Utilization indicators	Value	Range/Value
Coping Strategy Index (CSI)	3.5	Below 4.81
Food Consumption (Acceptable FCS)	95%	Above 29.74%
MUAC	0	Below 3.5

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 June was characterised with cold and dry weather conditions. Onset of rainfall was realised in the 1st week of April which continued till cessation in Mid May. No Rainfall was recorded during the month of June which was normal compared to the Long term average precipitation of year 2013 to 2020 for June.
- Farming activities during the month of June was harvesting of pulses such as green grams, green pigeon peas and cow peas while cereal crops such as millet, sorghum and maize were on their final stages of development. However, some few farmers were harvesting green maize.
- The precipitation condition for June 2021 was almost the same as of the previous year of 2020 which was 3.2 mm. Figure 1.1 below shows the rainfall trend for 2021 compared to the long term average and that of the previous year of 2020.

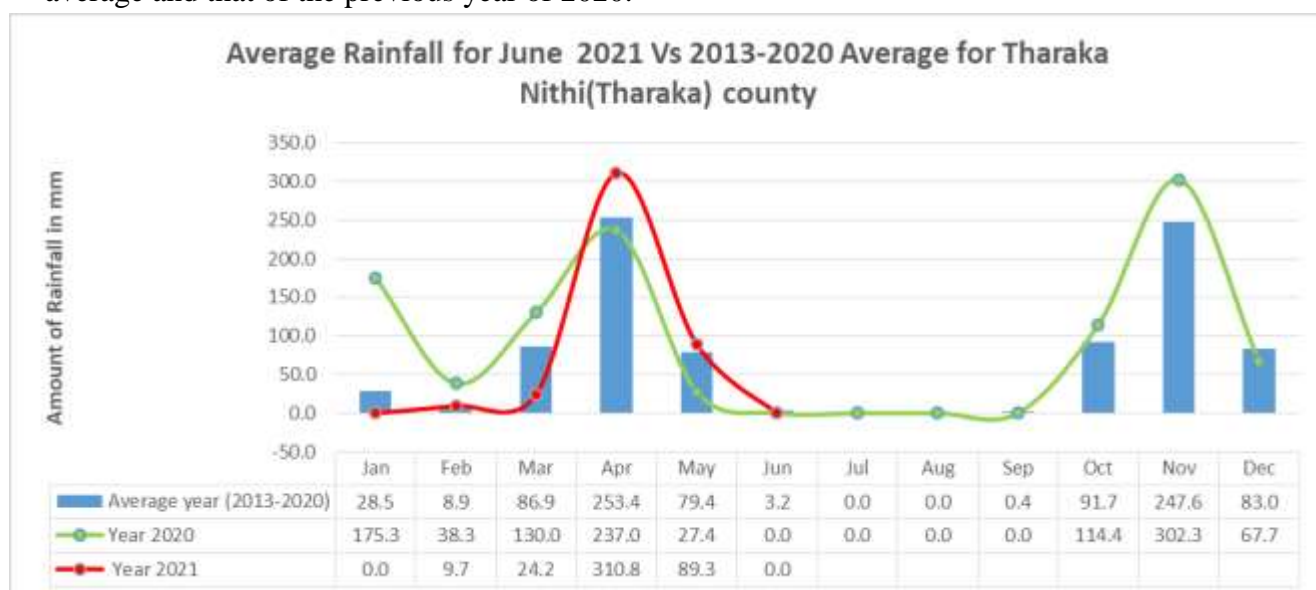


Figure 0.1 : Rainfall Trend for 2021 Vs. 2013-2020 Average

Temporal and Spatial Distribution of Rainfall

The overall performance of rainfall from its onset on the 1st week of April to Mid- May was average to above average. However, onset was late by two weeks while cessation was early by two weeks. Onset is usually expected mid-March and cessation was expected on the 4th week of May.

Spatial distribution was even since rainfall was received in all the livelihood zones.

Selective areas which received below average areas are mostly in the Marginal Mixed Farming areas of Gathangachini in Gatagani, Kariangima, Muthethakao A&B, Kiashe and Manaonkoni.

In Maragwa area, lower Maragwa received below average rainfall, other areas in in Kathangachini which received below average rainfall include Gaceuni, Kiamiramba and Mara Nthiu.

2.0 IMPACTS ON VEGETATION AND WATER

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2.1 Vegetation Condition Index (VCI)

- The cumulative 3 month vegetation cover for Tharaka Nithi County (Tharaka) for the month of June was 61.13 from 49.31 in May indicating an overall normal vegetation greenness. Pasture and browse condition was improving and within the normal range.
- Pasture and browse showed in June showed a great improvement from that of the previous month of May and was within the normal range of 35 to 50 across most of the livelihood zones. This was attributed to enhanced long rainfall season which stimulated regeneration of pasture and browse conditions.
- The matrix in figure 1.3 below shows vegetation cover classification based on the drought phases and the monthly vegetation cover trends of the vegetation condition index for Tharaka Nithi (Tharaka) County.

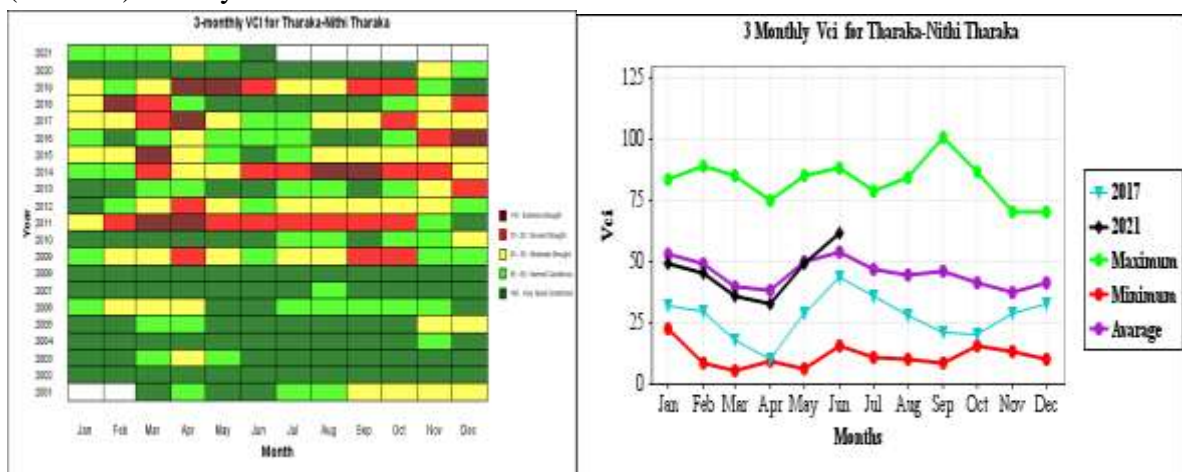


Figure 0.2: (a) Matrix and (b) Graph respectively of VCI Classification

Table 1: March 2021 Vs. February 2020 VCI (3M)

ADMINISTRATIVE UNITS		VCI as at 31 st May 2021	VCI as at 30 th June 2021
County	County/Sub County		
Tharaka Nithi	County	57.05	62.68
	Tharaka	49.31	61.13
	Chuka Igambang'ombe	66.97	65.65
	Maara	69.61	64

2.2 Natural Vegetation and Pasture Condition

Pasture Condition

- Pasture quantity and quality showed a great improvement across most of the Livelihood zones during the month of June due to normal performance of the long rains. The condition is expected to improve due to the presence of crop residue which will relieve pressure on pasture and browse. Parts of the Rain Fed Livelihood Zones received the least amount of rainfall which was enough for pasture development.

Browse Condition

- Browse condition in terms of quantity and quality was good across most of the livelihood zones in the month of June with an inclining trend from that of the previous months.
- This upward trends was due to enhanced long rains from April to the month of May which led to improved browse condition in June.

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 June was: Rivers, Traditional River wells, Pans& Dams and Boreholes as shown by figure 1.3 below.
- In some trading centres, there was use of piped water system which is mainly abstracted from rivers. Such centres include: Marimanti, Mukothima, Gatunga, Chakariga and Nkondi. In Marimanti there was improved quality of piped water due to reduced pollution of rivers. However, there was disruption of water supply due to breakages caused by construction works.

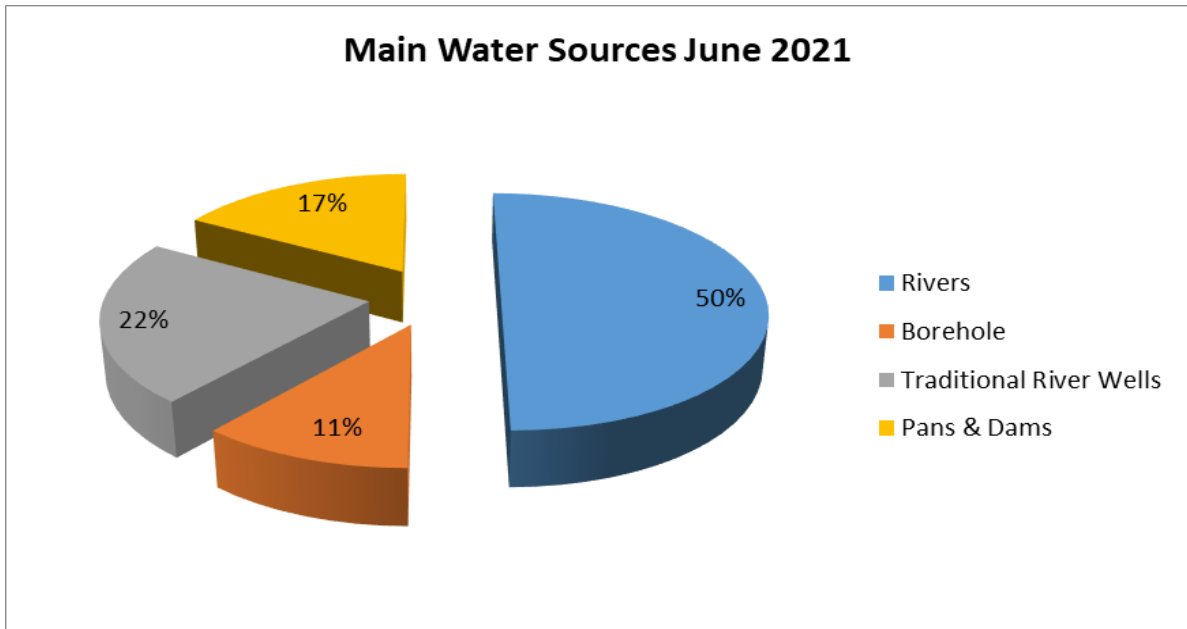


Figure 0.3 : Main Water sources Tharaka Nithi County

2.2.2 State of Water Sources

- The state of water sources for the month of June was within the normal range with and stable due to normal performance of the long rains. The water recharge level both for surface and underground sources was within to above the normal range.
- Status of water sources across all the Livelihood Zones for the month of June was ranked as normal 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 2.9 Km in May to 3.5 Km in June. This increase in Household water distance was attributed to a decline in recharge of water sources due to reduced rainfall which was received in June from that of May, leading to increased distances especially from rivers. Household return water distance in Marginal Mixed Farming Livelihood Zone was 5.6 Km, 3 Km in Mixed Farming Livelihood Zone while the Rain Fed Livelihood Zone had the least household water distance of 2 Km.
- The average distance of household access to water was 14.6% lower than the long-term average of 4.1 Km for the month of June.

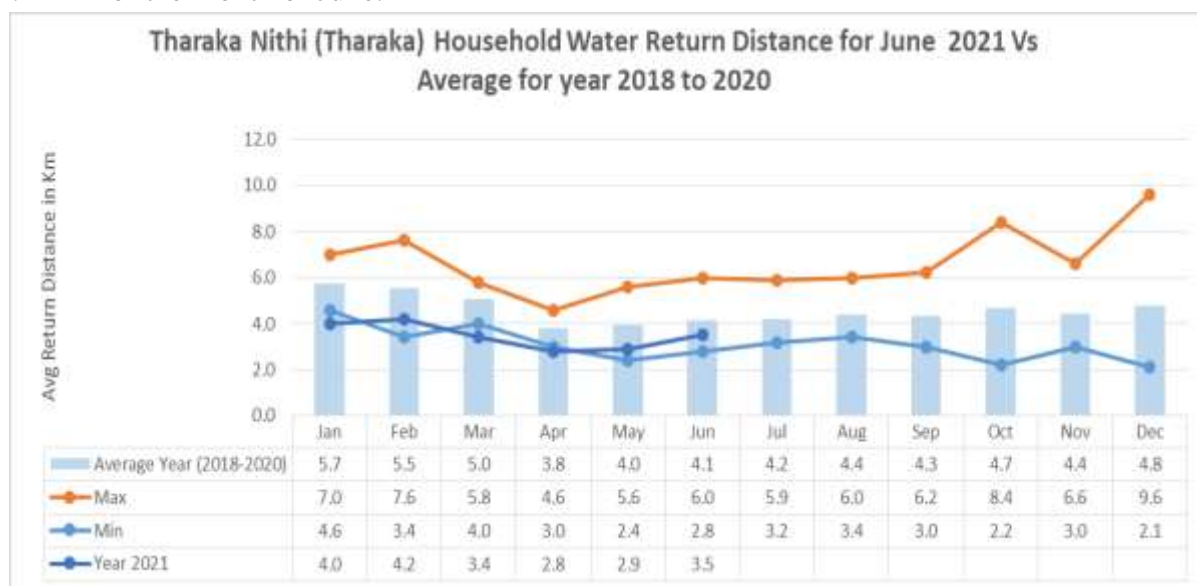


Figure 0.4 : Household Water Distance

Livestock Access to Water

- Average return water distance from grazing area increased from 3.7 Km in May to 4.2 Km in June. The increase in distance of livestock access to water was attributed to a drop in recharge level of water sources leading to a decrease in access of water by livestock.
- 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 3.4 Km while Rain Fed Cropping Zone recorded the least distance of 2 Km.

- The average return water distance from grazing areas was 12.5% lower than the long term average distance of 4.8 Km for this time of the year.

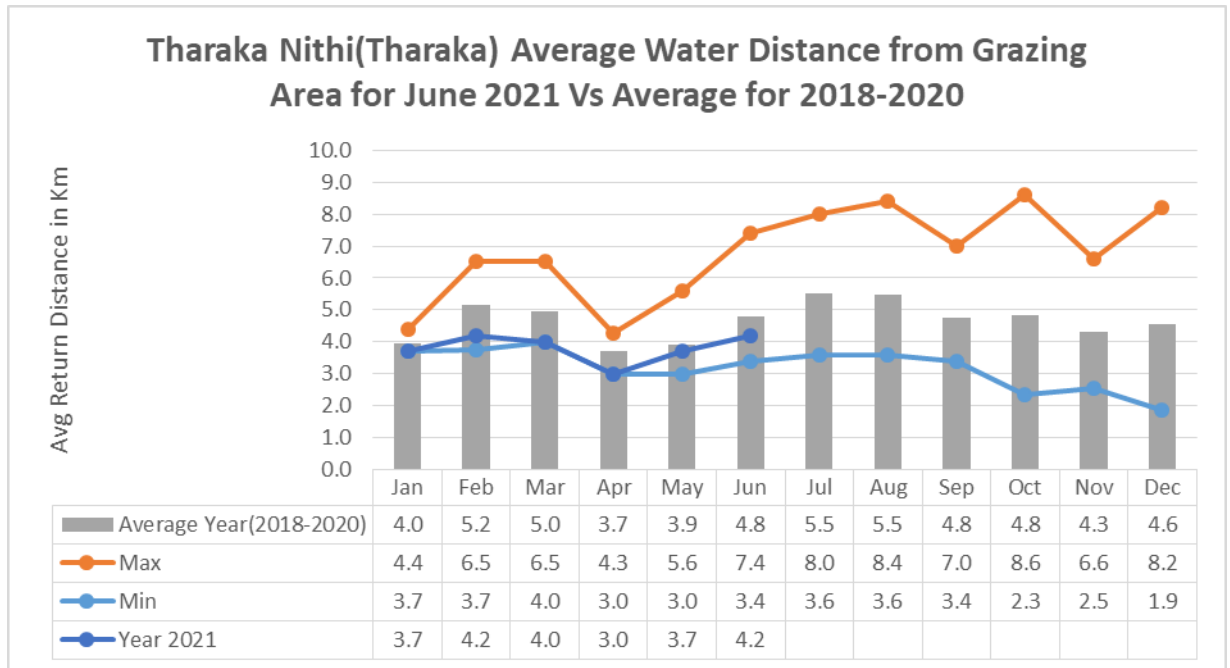


Figure 0.5 : Grazing to Water Distance for Livestock Trend

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 good livestock body condition could be attributed to good pasture and browse condition across most of the livelihood Zones.
- This was due to regeneration of pasture and browse from the long rain season of the 1st week of April 2021 to mid-May 2021 which had a normal to above normal performance.
- The Livestock body condition in June for cattle and shoats showed some improvement and 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. Few cases of CCPP were reported in goats and sheep across the County especially in the Marginal Mixed Farming Zones such as Gatue, Kathangachini, Maragwa, and Kamanyaki among other areas.
- Cases of Newcastle diseases were commonly reported in poultry especially chicken across the County which resulted to great losses.

3.1.3 Milk Production

- The average Milk production per household per day increased from an average of 0.6 of a litre per household per day in May to 1litre per household per day in June. The increase in milk production could be attributed to good pasture and browse and also higher calving rate during this time of the year.
- Marginal Mixed Farming livelihood Zones had an average production of 2 litres per household per day while the other livelihood Zones recorded an average production of less than a litre per household per day. Milk production per household was 21.26 percent lower than the 3-year average of 1.27 litre per household per day for this time of the year.

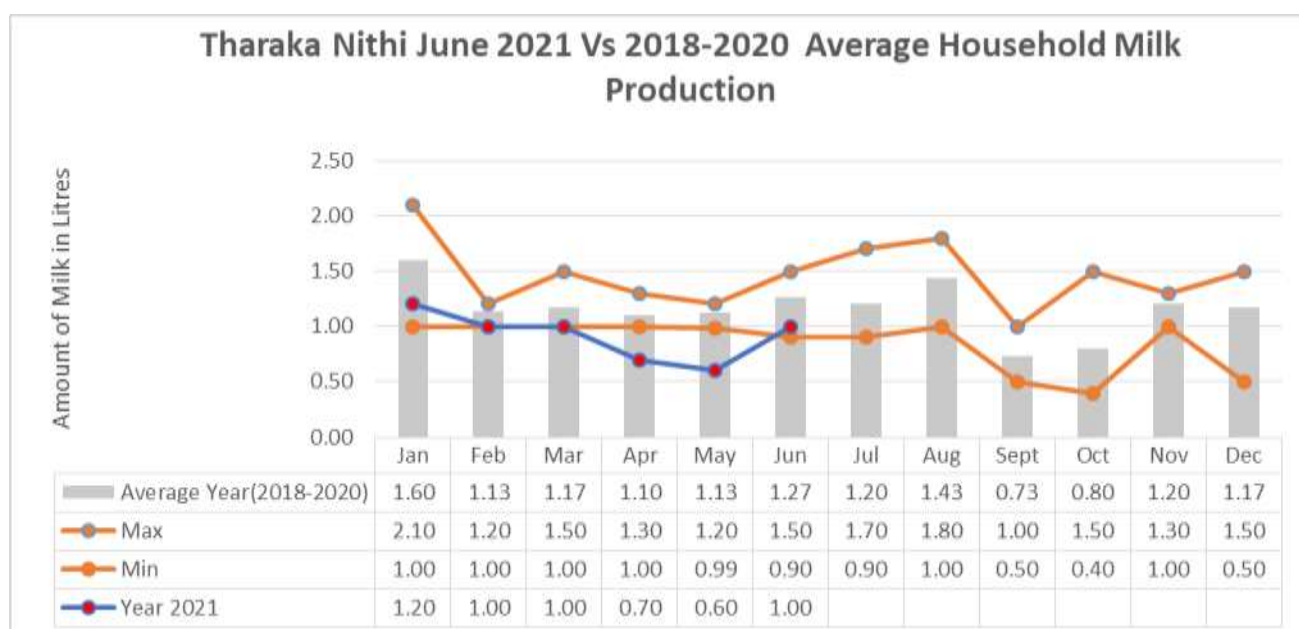


Figure 0.6 : Milk Production Trend

3.2 Crop Production

3.2.1. Timeliness and Status of Crops

- Farming activities during the month of June was harvesting for pulses such as green grams, Cow peas and pigeon peas. Some farmers of about 20% were selling their pulses to traders while for the majority, harvesting was still ongoing till mid- July.
- Main crops planted during this season was green grams, cow peas, maize and cereal crops such as sorghum, millet and maize.
- Most cereal crops such as millet, sorghum and maize were at their late stages of maturity, while some farmers especially in the Mixed and Rain fed Livelihood Zone were harvesting green maize.

3.2.2. Pests and Diseases

- There were few reported cases of pests and diseases during the month of June. Few instances of cutworms, pod borer and stock borers were reported in pulses and cereal but they were subdued.
- Since most farmers are on the eve of harvesting, there is need for proper sensitisation on post-harvest pests and weevils which may destroy crops.

4.0 MARKET PERFORMANCE

4.1 Livestock Prices

4.1.1 Cattle Prices

- The average cattle price decreased from Kshs. 27,000 in May to Kshs. 26,342 in June. The drop of cattle price in the month of June was attributed to more dependency on livestock price for income due to their good body condition with the hope of a higher price leading to more supply of cattle to the market hence a drop in cattle price.
- The Mixed Farming livelihood Zone had the highest average price of Kshs 29,083; Rain Fed Cropping Livelihood Zone had the price of Kshs 26,500 while the Marginal Mixed Farming Livelihood Zone had the least price of Kshs 25,550. The current price was 20.42 percent higher than the three-year average of Kshs 21,875.

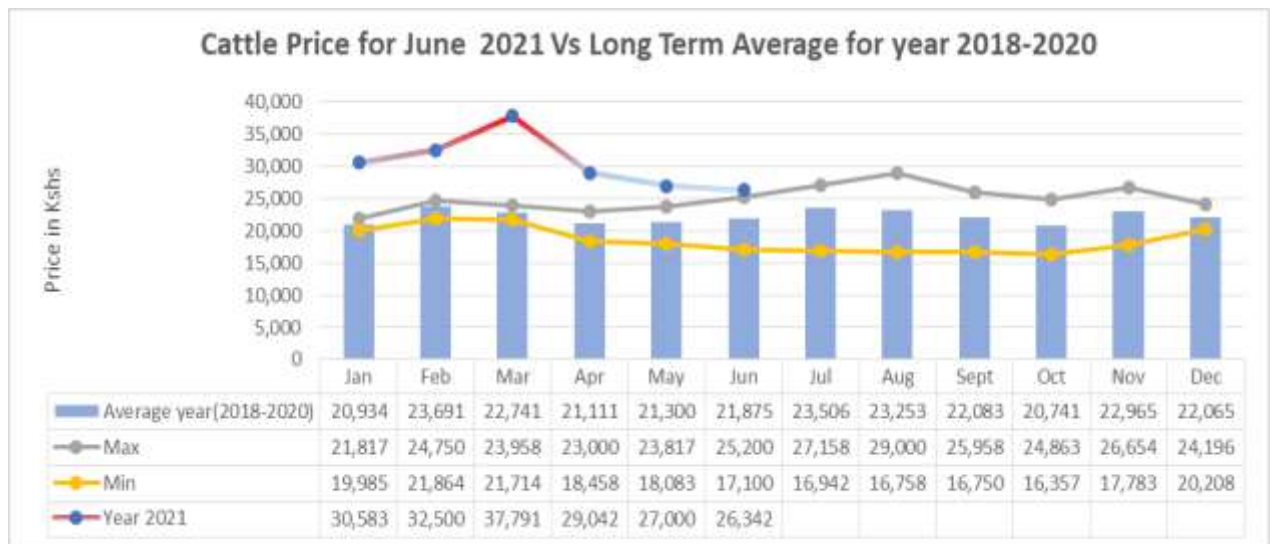


Figure 0.7: Cattle Price Trend

4.1.2 Goat Prices

- The average goat price decreased slightly from Kshs 3,992 in May to Kshs 3,942 in June. The drop of goat price in June was attributed to more dependency on livestock price for income due to their good body condition leading to more supply of goats to the market hence a drop in goat price.
- The Mixed Farming Livelihood Zone had the highest price of Ksh. 4,300; Marginal Mixed Farming Livelihood Zone recorded the price of Kshs 4,000 while the Rain Fed Cropping Livelihood Zone recorded the lowest price of Ksh. 3,567.
- The average goat price was almost the same as the three-year average of Ksh 3,982.

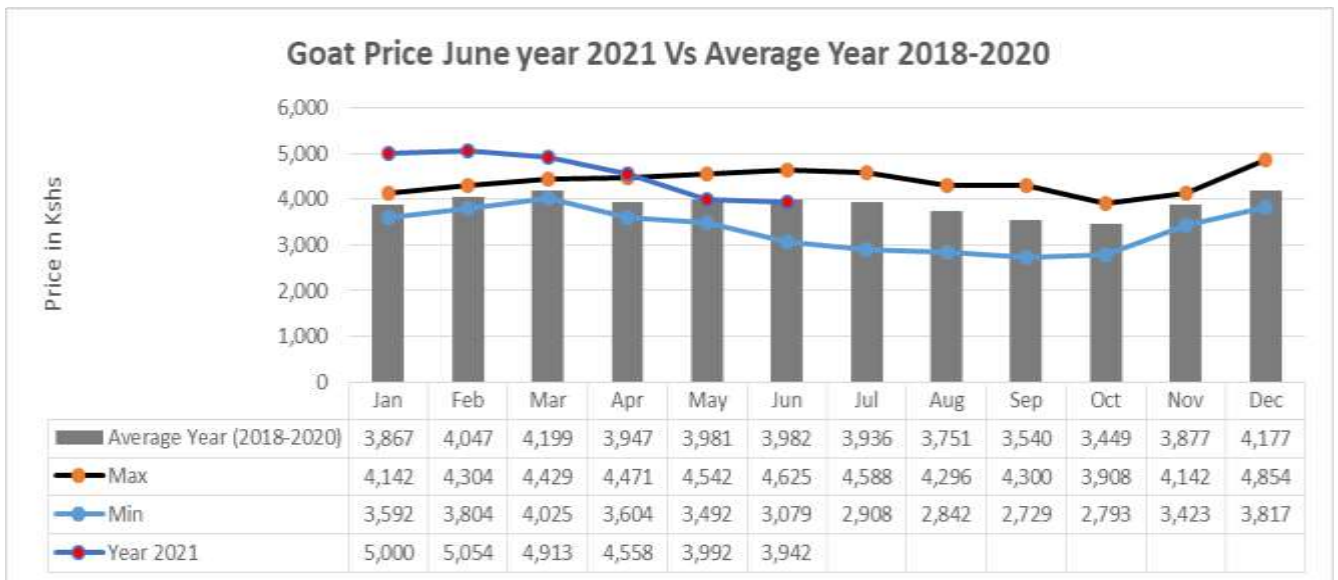


Figure 0.8: Goat's Price Trend

4.2 Maize Prices at Market Level

4.2.1 Price of Cereals and Other Food Products

4.2.2 Maize Prices at Market Level

- The average market price of a Kilogram of maize was Kshs 34 per Kg in June from Kshs 35 per Kg in May. This drop in Maize price was almost the same as of the previous month. The drop in maize price could be attributed to use of other substitute food crops leading to less demand for maize hence a slight drop in maize price.
- Maize price was Kshs 38 per Kg in the Rain Fed Livelihood Zone, Kshs 36 per Kg in the Mixed Farming Livelihood Zone while the Marginal Mixed Farming Livelihood Zone recorded the price of Kshs 33 per Kg.
- The average maize price was 8.1 percent lower than the three-year average price of Kshs 37 per Kg for June.

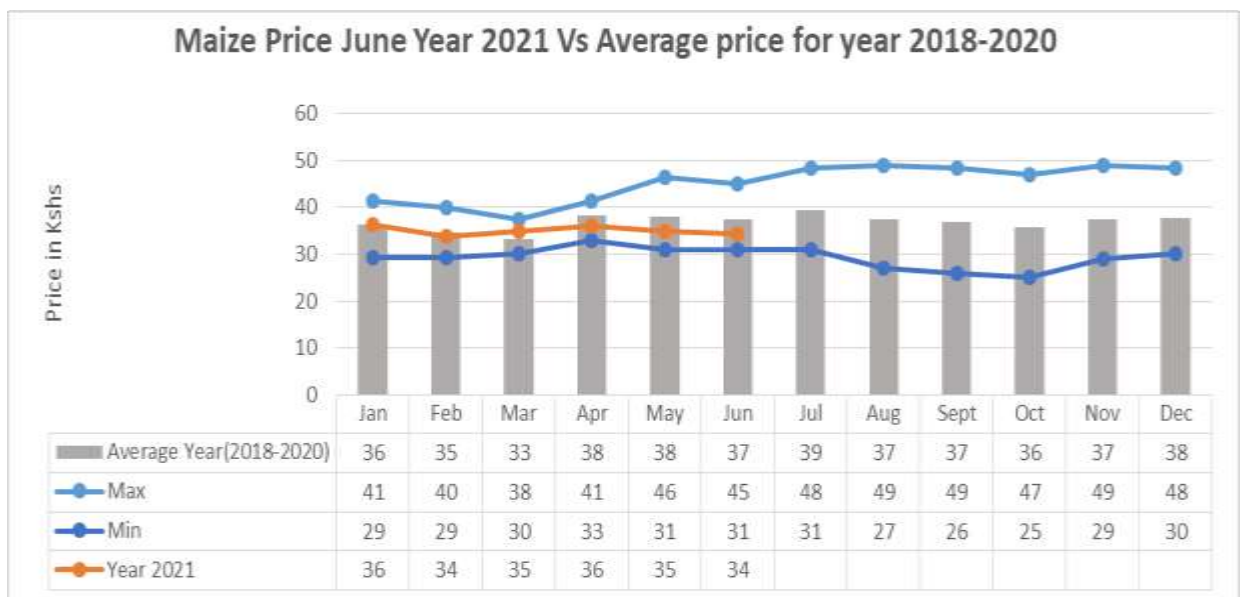


Figure 0.9: Maize Price Trend

4.2.3 Millet Price at Market Level

- The average market price of millet decreased from Kshs 49 per Kg in May to Kshs 39 per Kg in June. The decrease in millet price could be attributed to the onset of long rain harvest especially for farmers who planted in March leading to high stock in some areas leading to a drop in millet price.
- The Rain Fed and Marginal Mixed Farming Livelihood Zone recorded the highest market price of Kshs 45 per Kg followed by Mixed Farming Livelihood Zone which recorded the least price of Kshs 41 per Kg.
- The average millet price was 2.6 percent higher than the long-term average price of Kshs.38 per Kg for the month of June.

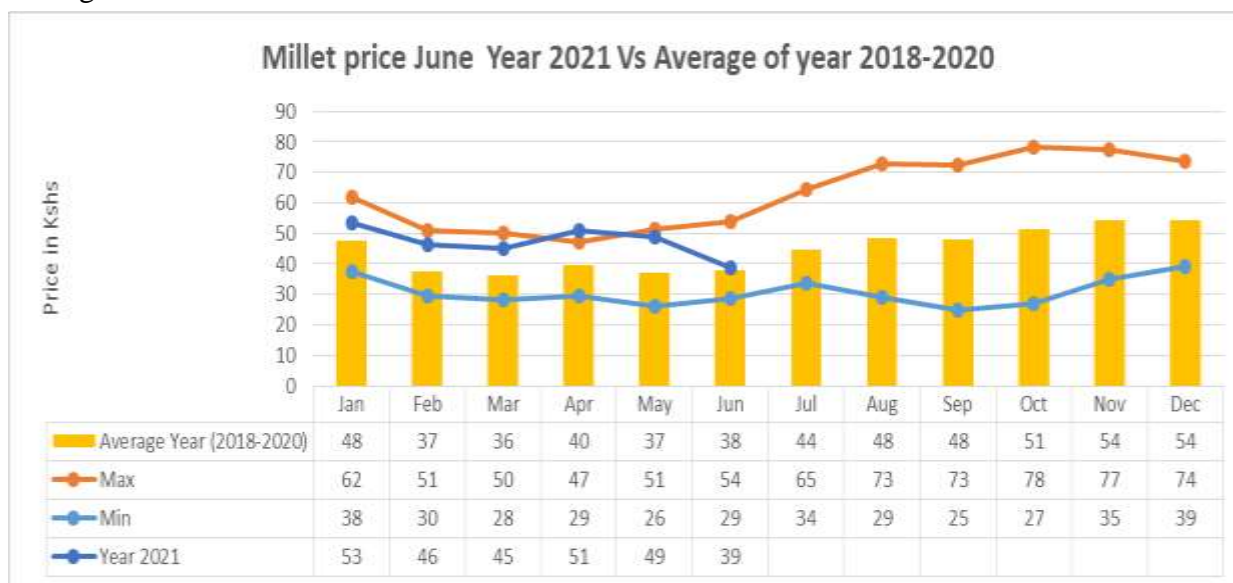


Figure 0.10 : Millet Price Trend

4.2.4 Terms of Trade (ToT)

- The Terms of Trade increased from 113.2 in May to 115.1 in June which was attributed to a lower decline in goat price against a higher decline in maize price.
- The highest ToT ratio was recorded in the Marginal Mixed Farming Livelihood Zone at 121.21; followed by Mixed Farming Livelihood Zone at 119.4; while Rain Fed Cropping Livelihood Zone had the least term of trade ratio at 93.87. The term of trade for the period under review was 3.7% higher than the three year average value of 111 during the same period.

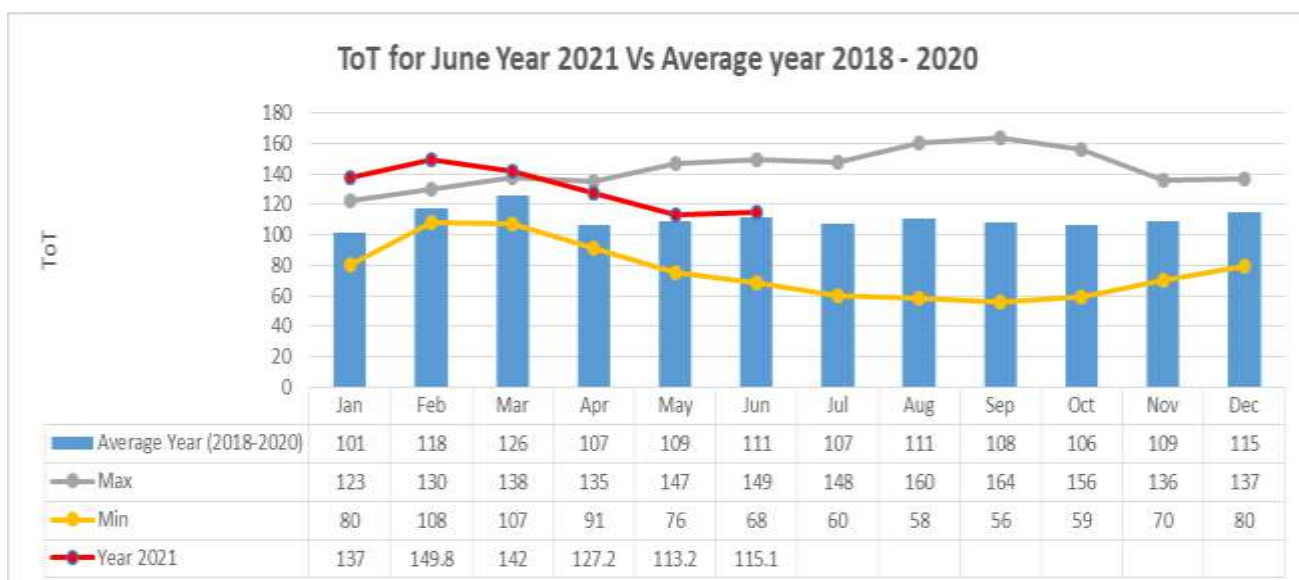


Figure 0.11: Term of Trade

4.2.5 Income sources

- The main sources of income for households in Tharaka Nithi County for the month of June were: Casual Labour, Petty trade, Sale of Crops, Sale of livestock /livestock product and Employment/wages as shown by the figure 1.12 below.

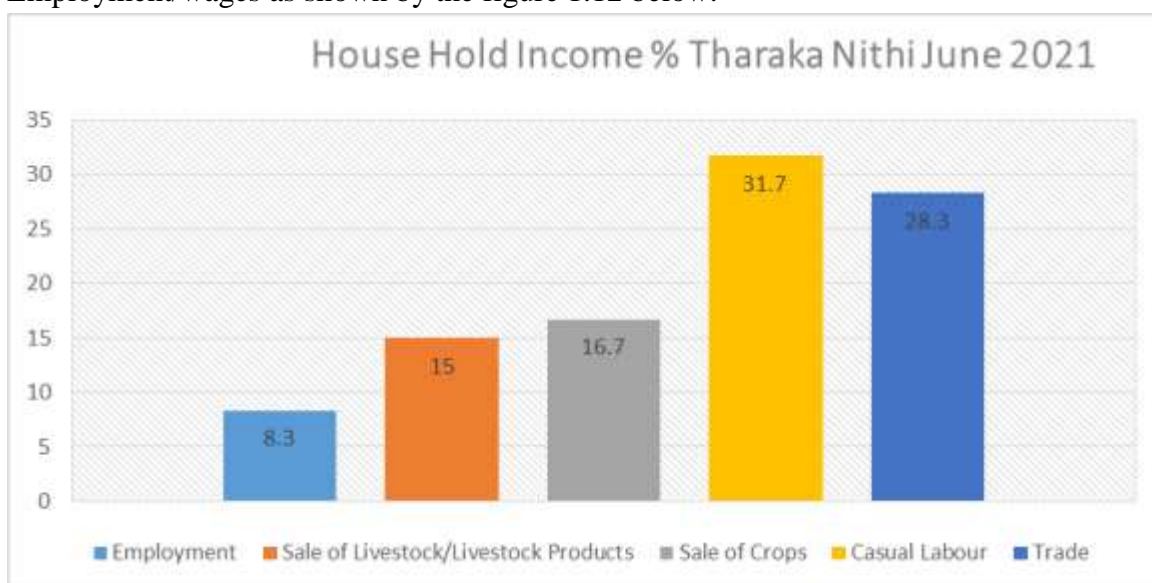


Figure 0.12 : Tharaka Nithi Percentage Household Income

5.0 FOOD CONSUMPTION AND NUTRITION STATUS

5.1.1 Milk Consumption

- The average milk consumption for the month of June was at an average of 1 litre per house hold per day from 0.5 of a litre per household per day in the month of May. Milk consumption was higher than that of the previous month due to increase in calving rate.
- The average milk consumed per household per day for the month of June was 21.26 percent lower than the 3-year average of 1.27 litre.

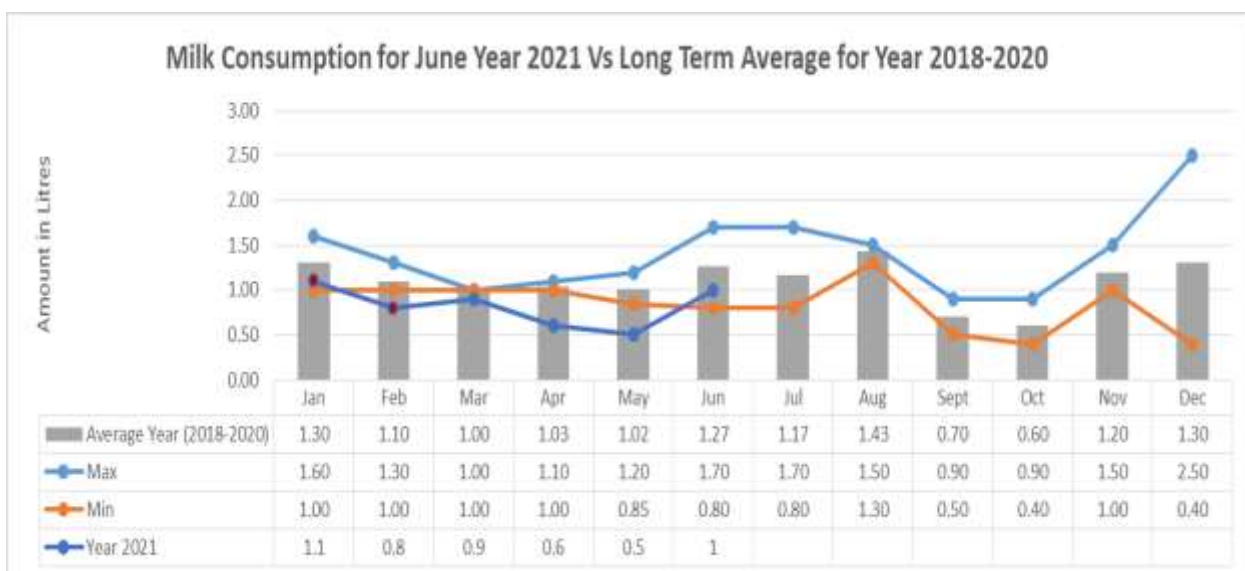


Figure 0.13 : Milk Consumption Trend

5.1.2 Food Consumption Score (FCS)

- Proportion of households with acceptable Food Consumption Score in the month of June was same as of the previous month of May at 95%. The higher percentage of households with acceptable FCS in June could be attributed to onset of the long rain harvest which led to presence of food and higher income from crop sales leading to an increase in Household food security due to presence of food or the ability of households to buy food.
- The proportion of household with acceptable FCS in June were higher than the long-term proportion for June by 65.26% as shown in figure 1.14 below.

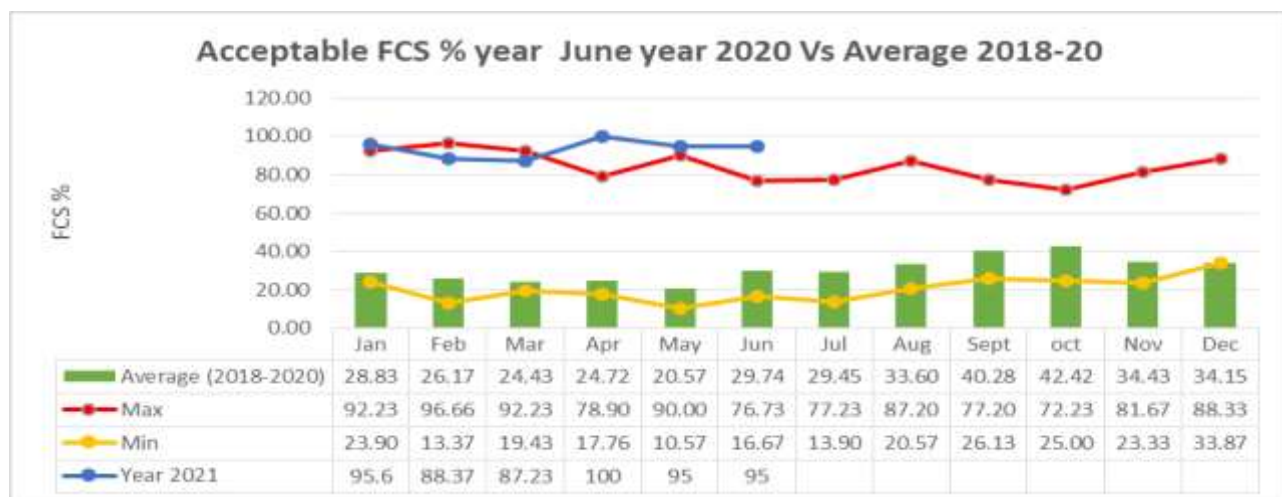


Figure 0.14 : Food Consumption Score Trend

Most of the households in the three Livelihood Zones recorded acceptable food consumption scores in the month of June is as shown by the figure 1.15 below.

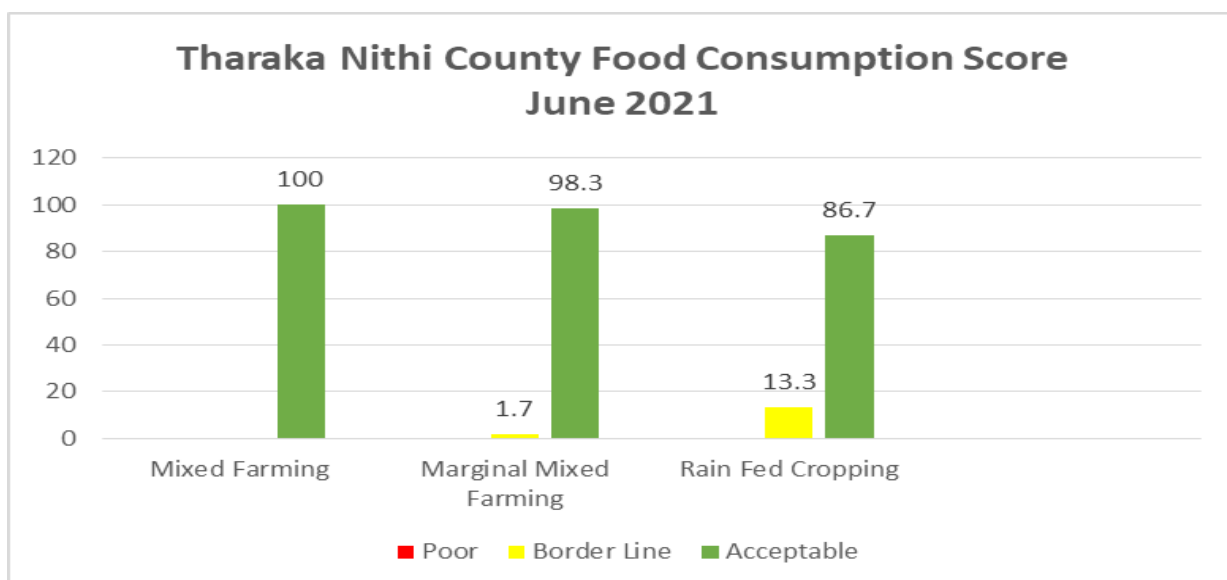


Figure 0.15: Food Consumption Score Chart

Table 3: Average Food Consumption Score

Period	Acceptable (%)	Borderline (%)	Poor (%)	Food Insecure HH (%)
January 2021	95.6	4.4	0	4.4
February 2021	88.37	11.63	0	11.63
March 2021	87.23	11.67	1.1	12.77
April 2021	100	0	0	0
May	95	5	0	5
June	95	5	0	5

- 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

- 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.
- Cases of diarrhea increased due to contamination of water especially from rivers due to increased pollution.

5.2.2 MUAC

- The month of June recorded insignificant proportion of malnourished children of 6 to 59 months with MUAC of less than 135mm just like the previous month of May which indicated a drop in malnutrition level. The low MUAC percentage could be attributed to a stable food security level at household compared to that of the previous months.
- The low proportion of the number of malnourished children was lower than long term average for the month June of 3.5%.

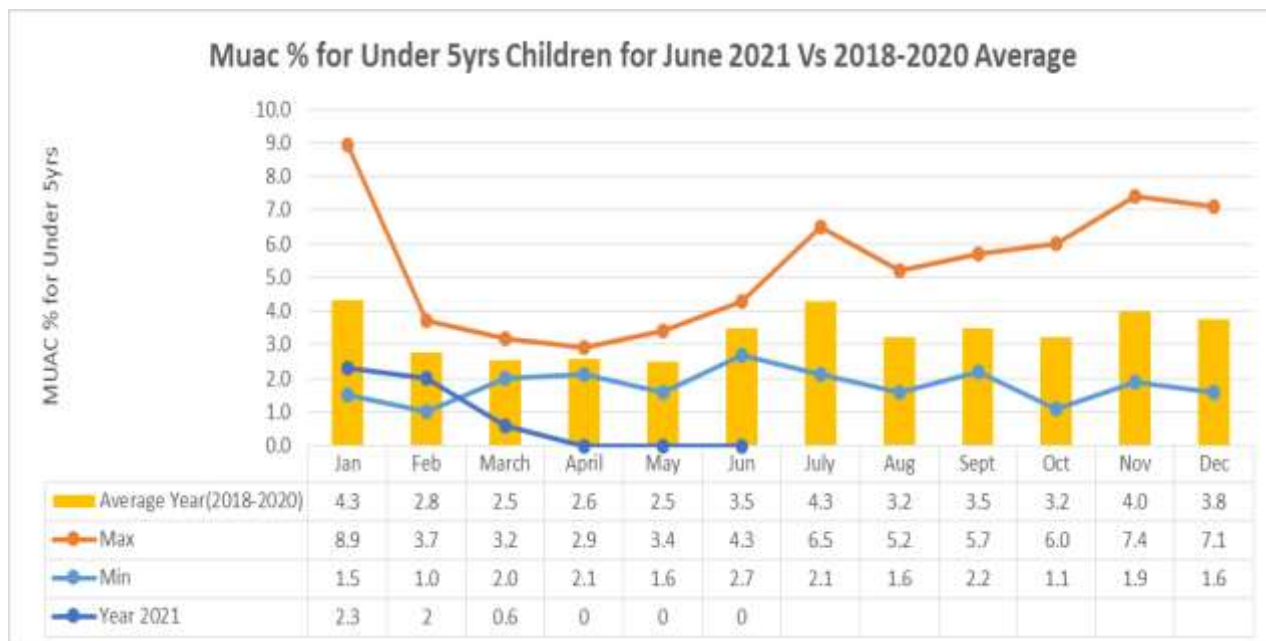


Figure 0.16: MUAC% trend for Under 5 yrs. Children

5.2.3 Coping Strategy Index

- The Coping Strategy Index (CSI) decreased from 20.1 in May to 3.5 in June which was lower than that of the previous month. The decrease in CSI value for June was attributed to onset of the long rain harvest leading to increased access for food hence a decrease in coping strategies at household level during the month of June.
- The CSI value for June 2021 was higher than that of 2018-20 average of 4.81. This is shown in figure 1.17 below.

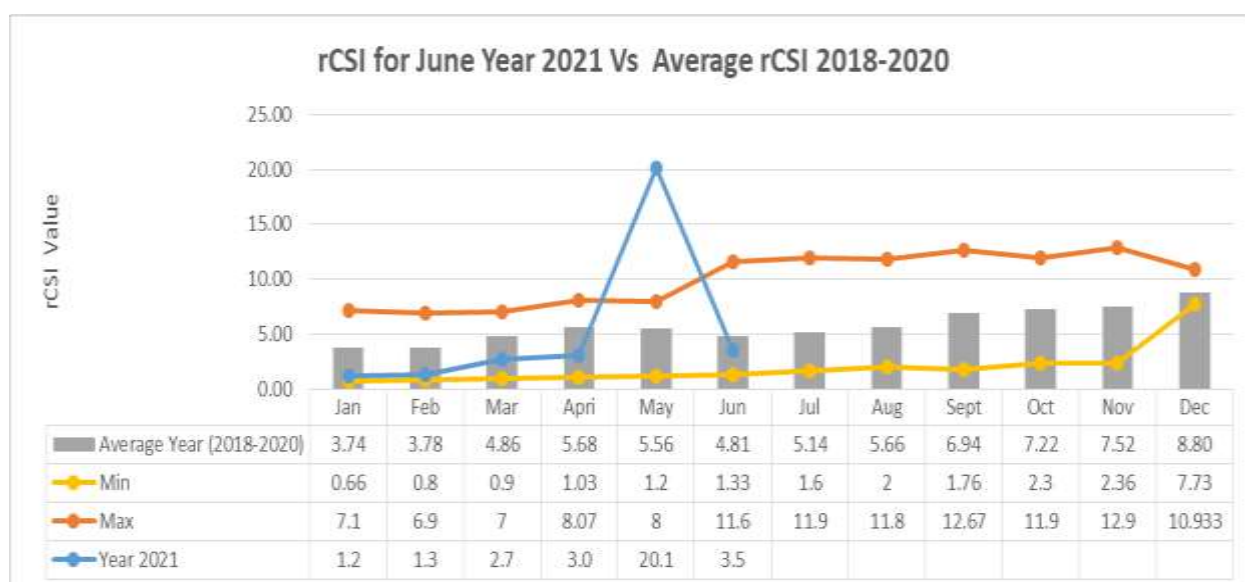


Figure 0.17 : Trend of CSI

- The highest CSI was recorded in the Marginal Mixed Farming zone at 5.4 followed by 3.9 in the Mixed Farming Zone while the Rain Fed Livelihood Zone recorded the least CSI of 1.2.
- The most commonly employed coping strategy mechanisms during the month of June was: - 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 earning Kshs 455 per day to caution those families against the effects of Covid 19 till June 2021.
- 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.

6.2 Non Food Intervention

KCEP CRAL (NDMA)

- Community Mobilisation and selection of Locational Climate Change Committee.
- Participatory Vulnerability Assessment Training of Locational and Ward Climate Change Committee on Climate Change by NDMA.
- Identification of Ward Climate Change investment Committee in six wards of Marimanti, Gatunga, Mwimbi, Igambang'ombe, Mukothima and Chakariga.
- Feasibility study of the identified projects in six wards of Marimanti, Gatunga, Mwimbi, Igambang'ombe, Mukothima and Chakariga and report writing.

- Survey and Design of Climate Change project in the most Vulnerable areas in 6 Wards of Chakariga, Marimanti, Gatunga, Mukothima, Igambang'ombe and Mwimbi wards and proposal writing.

NDMA

- Mid-season Rainfall performance assessment for the long rain season in June for Tharaka North and South.
- Pre- Livelihood zone review and sensitisation exercise in the month of March and April for Tharaka North and South.

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 two masonry water tanks at Chakariga Girls Secondary School by National Drought Management Authority (NDMA).
- 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 of June most farming activities were harvesting and marketing of pulses such as green grams, cow peas and pigeon peas. For cereal crops such as millet and sorghum, the crops are on their final stage of production. Harvesting is expected from the 1st week of July. This is likely to increase stock at household level which will increase food security and lower commodity prices. No Rainfall was received in the month of June which was normal, however the average rainfall was able to support pasture and browse development. This will likely promote livestock body condition and high livestock prices for the next one month.
- The normal long rains and normal water recharge in both surface and underground water sources which will likely result to shorter household water distance and livestock grazing to watering distance in the next one month.
- Market operation were normal and most food crops were been sourced from the markets and they include mainly millet, green grams and some dry maize from outside the county.
- Food Stocks at households' level is likely to increase across all the Livelihood Zone for the next 1 months due to the commencement of the long rain harvest.
- Markets operations are likely to improve for livestock due to presence of fair pasture and browse while prices of food commodities is likely to decrease for the next 1 month due to onset of the long rain harvest.
- Pasture condition is good and the condition is likely to increase for the next 1 months 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 year's children.
- Terms of Trade is fair and is likely to improve significantly in favour of the livestock farmers and the trend is likely to continue for the next 1 month till due to onset of the long rain harvest which will decrease commodity prices due to higher supply and higher livestock prices due to good livestock body condition hence higher prices.
- Households in the County are likely to be Food secure for the next 2 month due to onset of the long rains harvest which might positively affect income and food availability.

7.0 RECOMMENDATIONS (January to July 2021)

- The County Government and different stakeholders should start concentrating on preparedness activities geared towards resilience to propel household towards food security.

Sub County	Location	Intervention	No. of beneficiaries	Proposed Implementers	Required Resources	Available Resources	Time Frame
Tharaka North	Maragwa and Kathangachini locations	Promotion of post-harvest grain management, preservation & Utilization	8,500	MOA, NDM A, County Government	Fuel, Facilitaon Allowances, Stationary, Demonstration Materials	Technical personnel, vehicles	End of March 2019
Tharaka North	Maragwa and Kathangachini locations	Promotion of crop method demonstration sites (farmer field schools)	6,500	MOA, NDMA, County Government	Fuel, Facilitaon Allowances, Stationary, Demonstration Materials	Technical personnel, vehicles	End of May 2019

Tharaka North	Maragwa and Kathangachini locations	Expand Kenya Cereal enhancement program	6,000	MoA/Stakeholders	Finances	Technical personnel, vehicles	2 years
Tharaka south	Nkondi	Provision of subsidized planting inputs	8,000	County Govt National Govt	Fertilizers Seeds chemicals		By end of September 2020
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	Hygiene safe drinking water	3 months