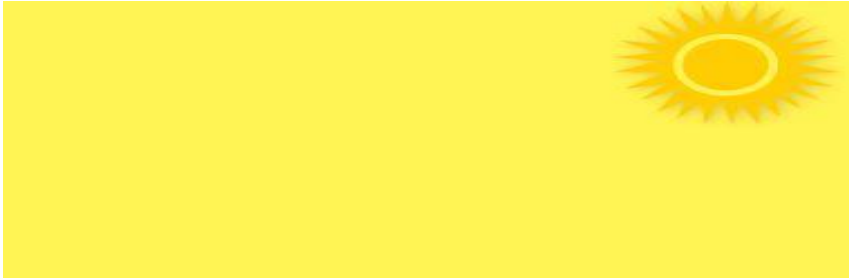




National Drought Management Authority THARAKA NITHI COUNTY

March EW PHASE



Early Warning Phase Classification

LIVELIHOOD ZONE	EW PHASE	TRENDS
MIXED FARIMNG	ALERT	STABLE
MARGINAL MIXED FARMING	ALERT	STABLE
RAINFED CROPPING	ALERT	STABLE
COUNTY	ALERT	STABLE
Biophysical Indicators	Value	Normal Range/Value
Average rainfall (March)	104	80 - 120
VCI-3month (Tharaka Nithi)	12.74	35-50
State of Water Sources	4	4 - 5
Production indicators	Value	Normal
Livestock Migration Pattern	Normal	Normal
Livestock Body Conditions	4-5	4 - 5
Milk Production	20.25	53 – 31
Livestock deaths (for drought)	No death	No death
Access Indicators	Value	Normal
Terms of Trade	83	177 - 39
Milk Consumption	16.5	37.5 - 23.8
Water for Households	4	4-5
Utilization indicators	Value	Range
MUAC	7.47	12.07 - 5.43
Coping Strategy Index (CSI)	0.67	0.66
Food Consumption	88	Acceptable

Drought Situation & EW Phase Classification

Biophysical Indicators

- The month of March registered onset of the long-rains season of which rainfall was recorded in various parts of the county in the third dekad for an average of four days.
- The Vegetation Condition Index (VCI) was 12.74 illustrating severe drought and on a worsening trend.
- The water availability was below normal attributed to the long dry spell and declined volumes in available water sources.

Socio Economic Indicators (Impact Indicators)

- No external migration was reported in the period under review.
- The quality and quantity of pasture and browse was fair to poor and has worsened compared to the previous month.
- Milk Production per livelihood zone was recorded at an average of 20.25 litres and consumption at 16.5 litres respectively which was below normal.
- Terms of Trade (ToT) ratio was at 83 in comparison to an average of 101.
- Percentage of children at risk and malnourished whose MUAC is below 135mm was 7.47 for the period under review which was slightly below the average of 8.28

Current Drought Risk

Low

√Medium

High

- Most households' drought risk is at medium and in Stressed Integrated Food Security Phase Classification (IPC) phase across all livelihood zones. The onset of March-May rains is expected to impact positively on household food security indicators

BIO-PHISYCAL INDICATORS

1. MEASURING DROUGHT HAZARD

1.1 METEOROLOGICAL DROUGHT

1.1.1 Actual Rainfall

- Rainfall pattern in the county is bimodal with long rains usually experienced in the months of March to May.
- The onset of rains was late by one week, in the third dekad of March with the date’s varying from 22nd of March to 23rd of March, 2015.
- The County’s mean rainfall amounted to 104.4 mm during the period under review in comparison to a long term five year average of 87 mm and 57. 5 mm in March 2014 at this time of the year.
- Rainfall performance was slightly above normal in comparison to the long-term five year average and below 2014 average.

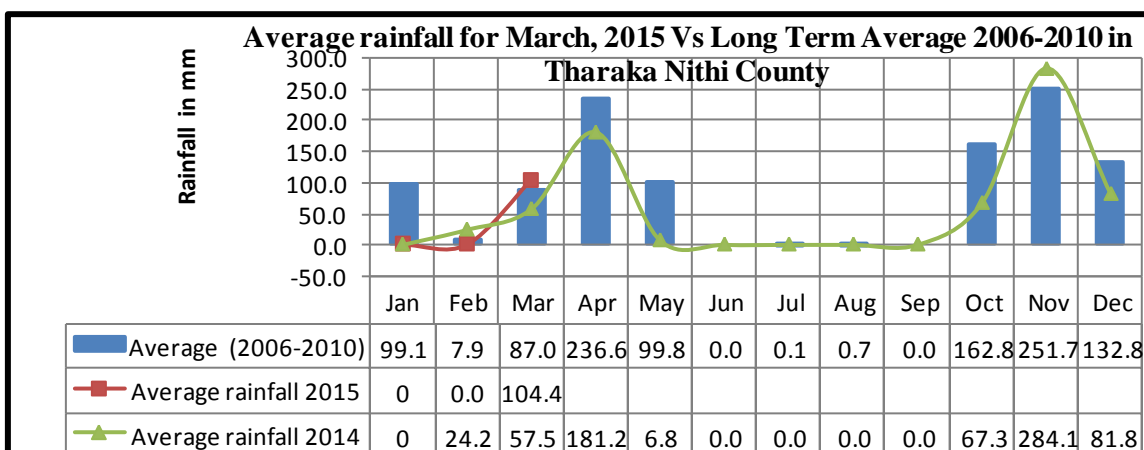
1.1.2 Spatial distribution

- The distribution of rains across the county was fair

1.1.3 Temporal distribution

- Temporal distribution was poor. Kathangachini recorded a total of 92 mm, Kanyuru marked a total of 122 mm, Karocho recorded a total of 24.22, Kithino recorded 122.2 mm while Kanjoro recorded a total of 161.8 mm for 4 wet days in all sentinel sites.
- The period under review was characterized by four rainy days, recorded mostly in the 3rd dekad of the month across all livelihood zones.

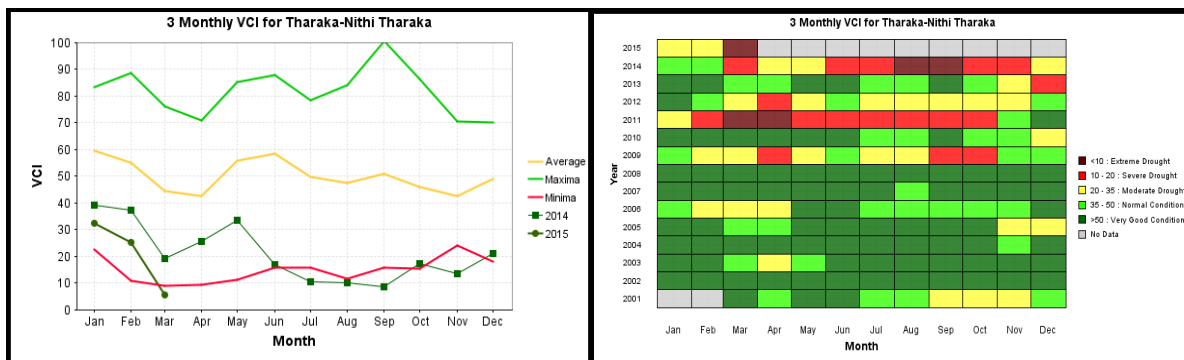
Rainfall station data



1.2 AGRICULTURAL DROUGHT

1.2.1 VEGETATION CONDITION INDEX (VCI)

- The matrix below illustrates the period from January to March, 2015 as classified in terms of agricultural drought based on VCI thresholds. The matrix shows a retrospective analysis of the drought vegetation condition and related drought category. March 2015 indicates severe drought of ranges 10-20 (12.74) while Tharaka Sub-County in the extreme drought band, with specific value at 5.39. The deteriorating vegetation condition may be attributed to the long dry spell



- Below are thresholds for VCI

Threshold for VCI 3-month and related drought categories		
Color	VCI values	Drought Category
	3-monthly average	
	≥ 50	Wet
	35 to 50	No Drought
	21 to 34	Moderate Drought
	10 to 20	Severe Drought
	< 10	Extreme Drought

1.2.2 NATURAL VEGETATION AND PASTURE CONDITION

Field Observations (Pasture and Browse Conditions)

1.2.1 Quality

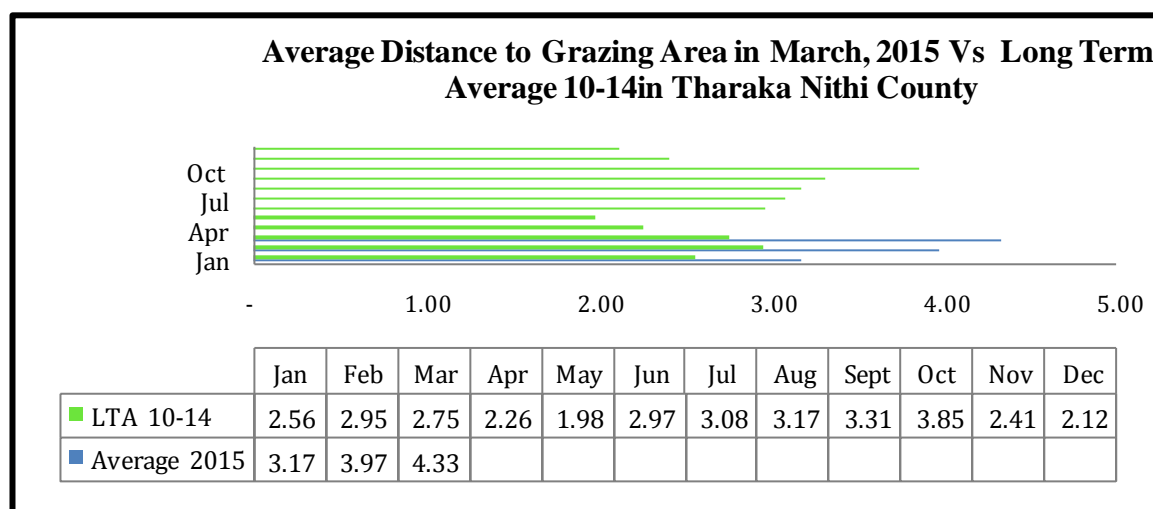
- The quality and quantity of pasture and browse was fair to poor and has worsened compared to the previous month attributed to increased evapotranspiration rate. The onset of rains is yet to impact on the regeneration of Pasture and browse condition

Quantity

- The amount of browse and pasture is low as regeneration in the month of March, 2015 was insignificant attributed to the long dry spell.
- Most areas registered a decrease in *Vegetation Density* based on the Normalized Difference Vegetation Index (NDVI) received in dekad 1, 2 and 3 of March, 2015. The density is below normal.

1.2.2 Distance to Grazing Areas

- The average distance to grazing areas slightly increased from 3.97 km recorded in February to 4.33 km in the month of review attributed to diminishing pasture availability.
- The longest return distance to grazing areas was recorded in the Marginal Mixed Farming livelihood zone at 6.7 km compared to 2.1 km in the Mixed Farming livelihood zone and 4.2 km in the Rain-fed cropping zone.
- The average grazing distance is slightly above normal in comparison to the long-term five-year average of 2.75 km for this time of the year.

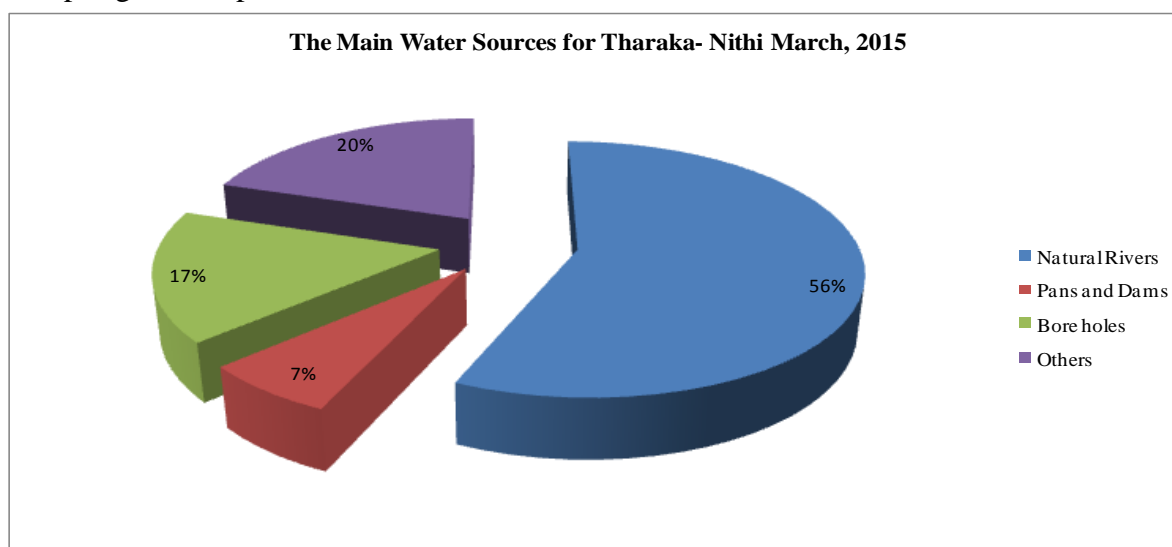


HYDROLOGICAL DROUGHT

1.3 Water sources and availability

1.3.1 Main sources of water

- The major water sources for households and livestock in the period under review were Natural Rivers, boreholes and piped water normally other sources of water include springs, dams/pans, sand dams and water harvested from rock and roof catchments.



- The state of water sources was ranked at 4 compared to 5 normally.

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

SOCIO-ECONOMIC INDICATORS

2.0 PRODUCTION INDICATORS

2.1 Livestock production

2.1.1 Livestock Migration Patterns

- No migration was reported under the period under review.

2.1.2 Livestock Body Condition

- The body condition of most livestock was moderate, attributed to availability of maize and sorghum stovers from the failed season crop and increased watering distances rated as 4-5.
- Below is a threshold scale

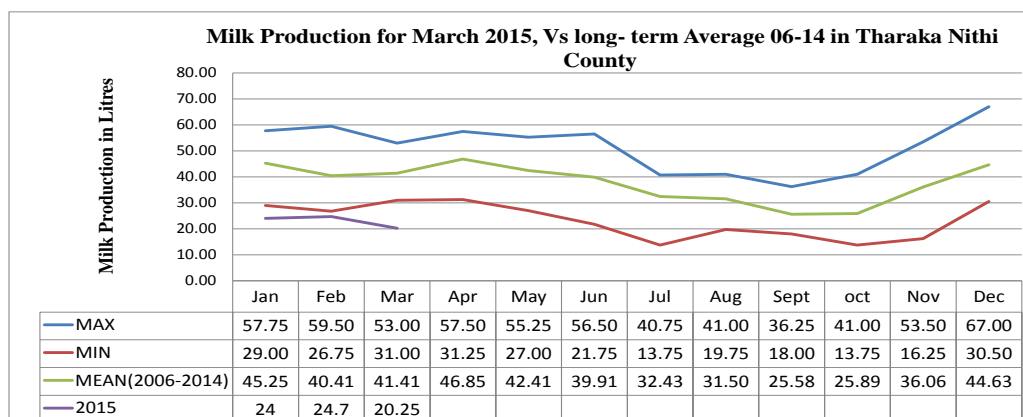
BODY CONDITIONS	SCORE	WARNING STAGE
Emaciated, little muscle left	1	Emergency
Very thin no fat, bones visible	2	
Thin fore ribs visible	3	Alert Worsening/Alarm
Borderline fore-ribs not visible. 12th & 13th ribs visible	4	Alert
Moderate, neither fat nor thin	5	Normal/Alert
Good smooth appearance	6	
Very Good Smooth with fat over back and tail head	7	Normal
Fat, Blocky. Bone over back not visible	8	
Very Fat Tail buried and in fat	9	

2.1.3 Livestock Diseases

- There were no disease outbreaks in all the livelihoods. However tick borne diseases were more prevalent. They include; Anaplasmosis, Babesiosis and Helminthiasis in Cattle, pneumonia, heart water and Helminthiasis in goats and Ectoparasitism and Coccidiosis in poultry.

2.1.4 Milk Production

- Milk production per livelihood zone in the period under review was on the decline, from 24.7 litres in the month of February to 20.25 litres in March.
- The highest milk production was recorded in the Marginal Mixed Farming livelihood zone at 42 litres while Rain-fed cropping zone had 9 litres and Mixed Farming livelihood zone had 10.5 litres.
- Decrease in milk production is attributed to diminished pasture and browse and increasing watering distances. Factors that impacted negatively on livestock productivity.
- Milk production level was below normal for this time of the year in comparison to the long-term five-year average of 41.41 (750 ml).



2 Crop productions

2.2.1. Timeliness and status of crops.

- Current on-farm activities are mainly land preparation and planting in anticipation of a better season.
- Major crops being planted are Sorghum, Green grams, Millet, Maize, Pigeon peas, Cowpeas and Groundnuts. A majority of which are at the germination stage.

2.2.2. Pests and diseases.

- No major crop pest and diseases were reported in the period under review.

2.2.3. Crop harvest

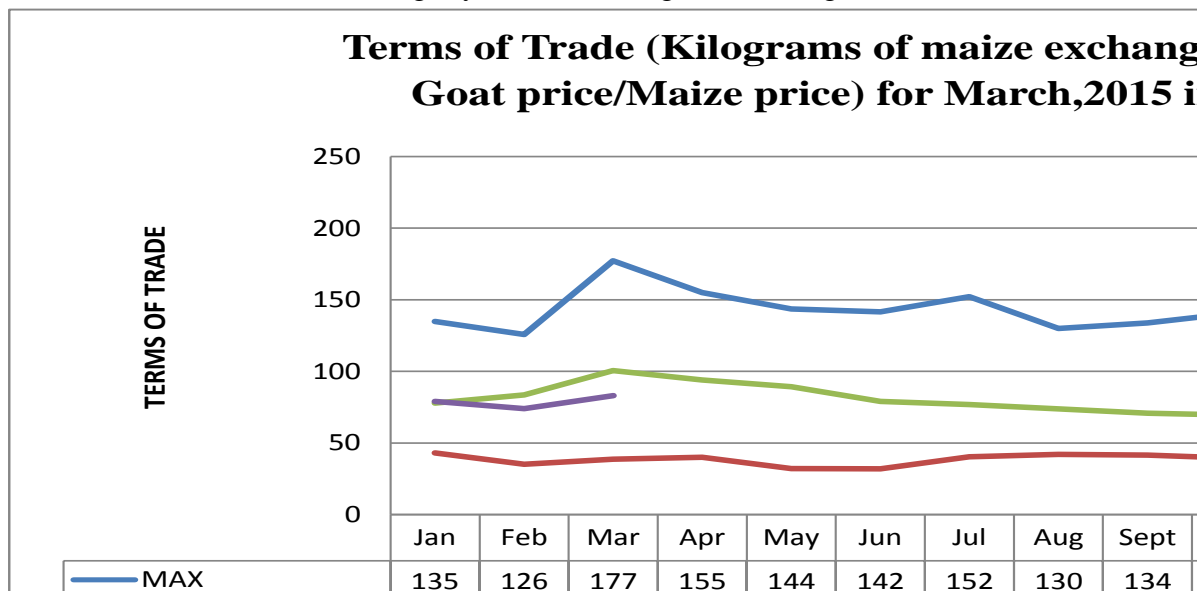
- No Crop harvest was reported in the period under review.

ACCESS INDICATORS

3.1 Livestock Prices

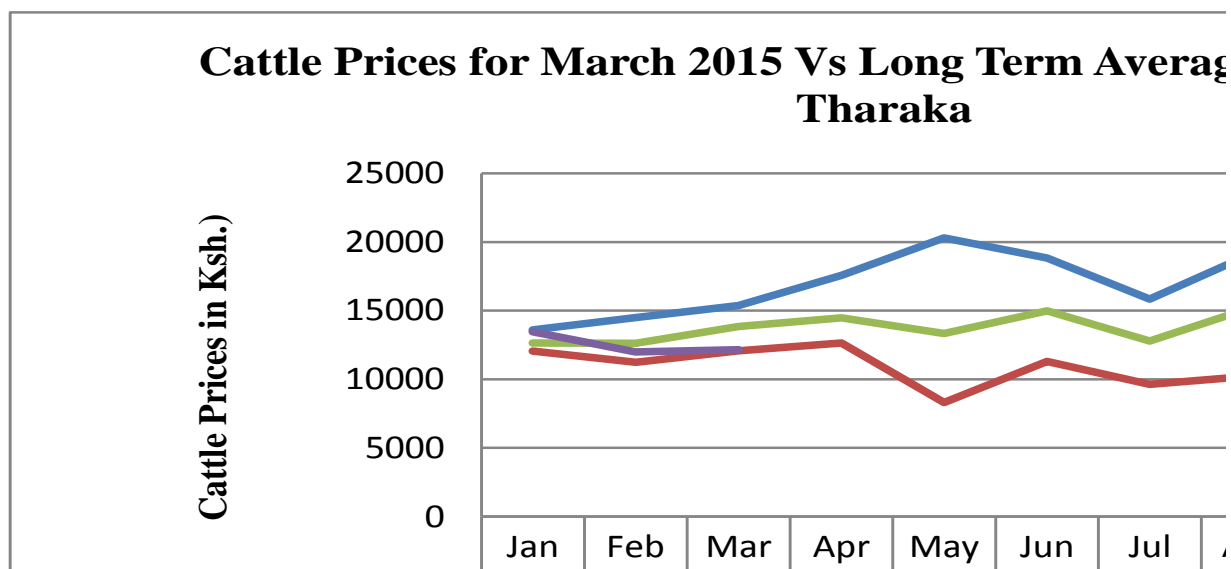
3.1.1 Livestock Terms of Trade

- The sale of one goat, one could purchase 83 kg of maize indicating fairly comparable terms of trade to the month of February which was at 80.
- The highest ratio was recorded in Marginal Mixed farming livelihood zone at 93 while Rainfed livelihood zone recorded 86 in comparison to the Mixed farming livelihood at 70.
- The Terms of Trade were slightly below the long-term average of 101.



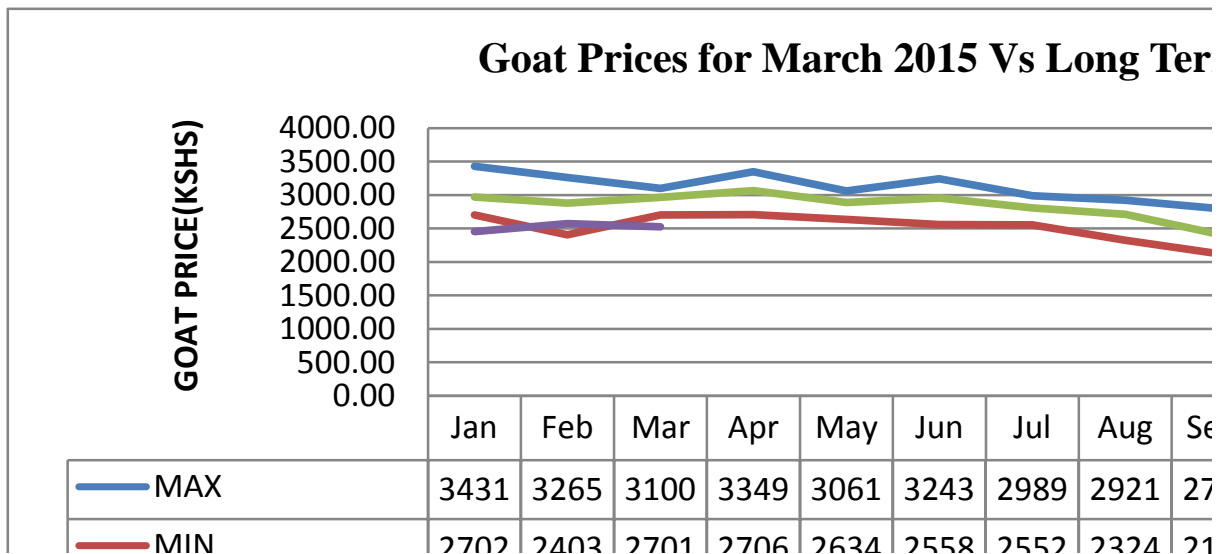
3.1.2 Cattle prices

- The average household price for cattle increased to Ksh 12,166 in March compared to Ksh 12000 in February.
- The Mixed farming livelihood zone recorded an average price of Ksh. 11,500.00 while the Marginal Mixed Farming and Rainfed cropping livelihood zones reported an average price of Ksh. 12,000.00 and Ksh.13, 000.00 respectively.
- The average cattle price was below the Long Term Average Ksh. 13,833



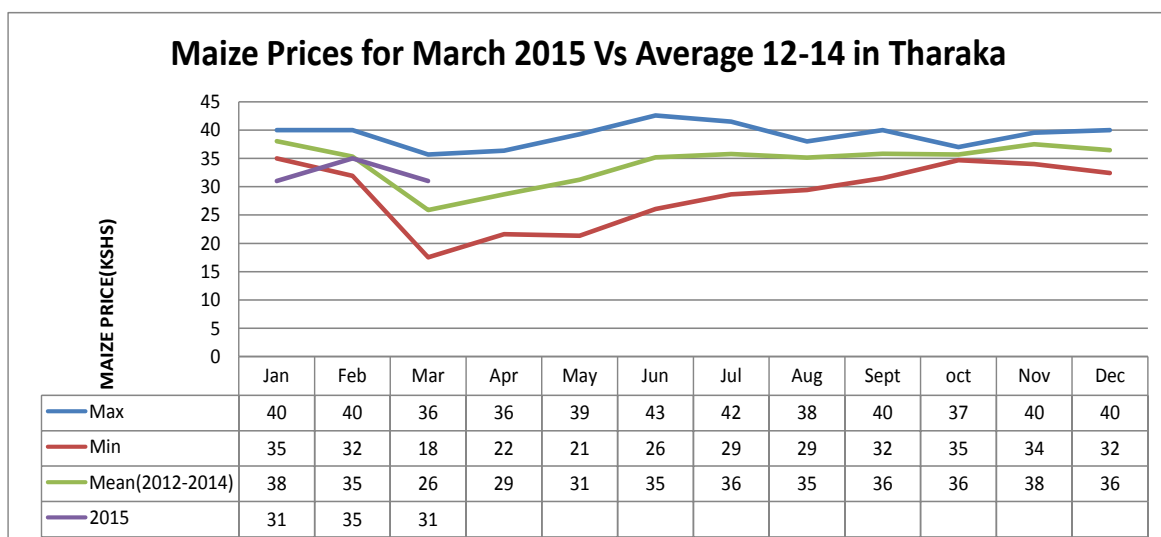
3.1.3 Goat Prices

- The average household price for goat was relatively stable at Kshs 2,525 that was fairly comparable to Kshs. 2,572 recorded in February.
- The Marginal Mixed Farming livelihood zone reported the highest price at Kshs 2,750. While the Rain fed cropping and Mixed farming livelihood zones recorded Kshs 2,725 and Kshs 2,100 respectively.
- The average goat price was fairly comparable to the long-term five-year average of Kshs.2, 965.



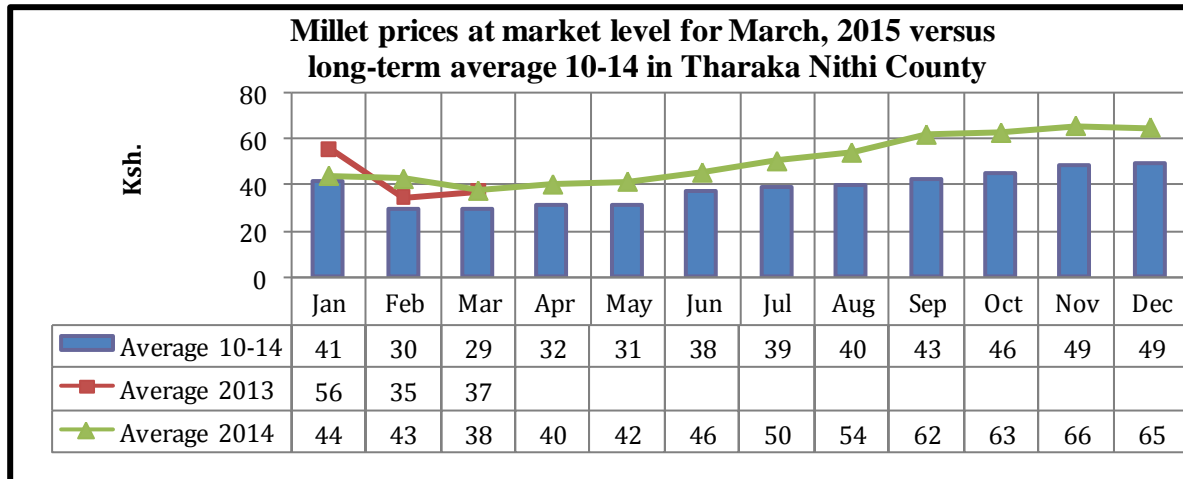
3.2 Price of cereals and other food products

- The market average price of maize per kilogram decreased slightly from Ksh. 35 recorded in February to Ksh 31 per kg attributed to minimal on farm harvests.
- The highest maize average price was recorded in Rain Fed livelihood zone at Ksh. 32 compared to Kshs 30 in both the Marginal Mixed Farming and Mixed Farming livelihood zones.
- The price per kilogram of maize was above the Long Term Average of Kshs. 26.



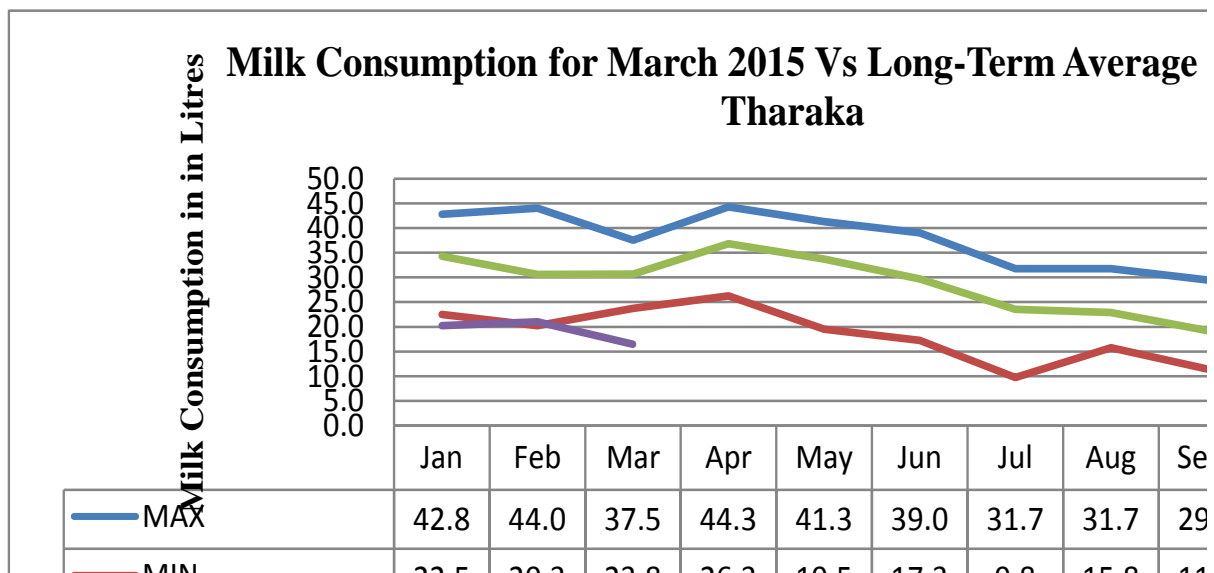
3.3 Millet Price at Market level.

- The market average price of millet per kilogram increased slightly from Ksh. 35 in February to Ksh. 37 in March. This could be attributed to increased demand for planting seed material in the long rain season.
- The highest market average price was recorded in the Rain Fed livelihood zone at Kshs 47 Compared to Kshs. 33 for both Marginal Mixed Farming and Mixed farming livelihood zones.
- The price was above the long-term average of Ksh. 29 and fairly comparable to the 2014 average price of Ksh 38 for this time of the year.



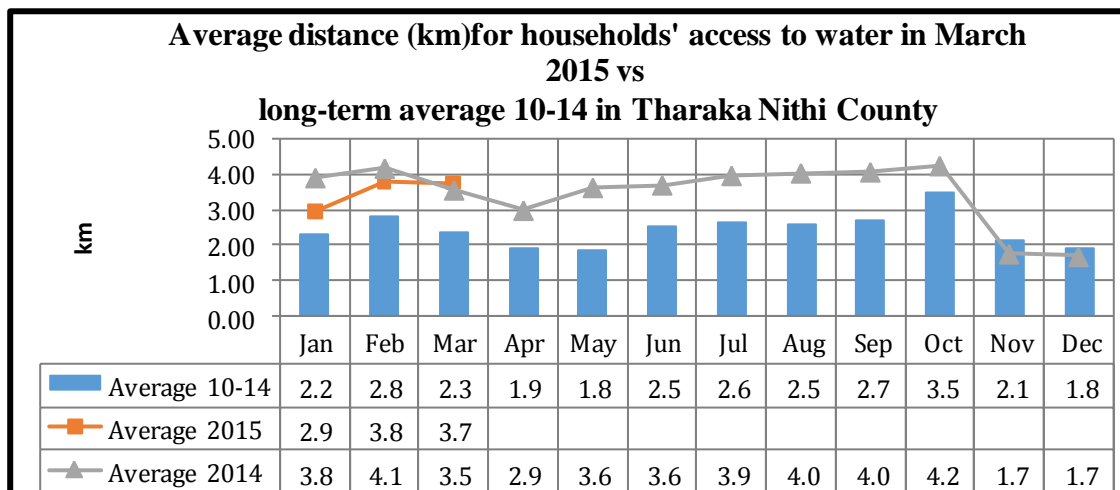
3.3 Milk Consumption

- The average milk consumption per livelihood zone in the period under review reduced to 16.5 litres in March in comparison to 21 litres in the month of February.
- The highest milk consumption was recorded in the Marginal Mixed Farming livelihood zone at 32.25 litres bottles compared to 9.75 litres and 8.25 litres bottles in the Mixed Farming and Rain fed livelihood zones respectively.
- The average milk consumption per livelihood zone was below the long-term average of 30.7 litres bottles at this time of the year.



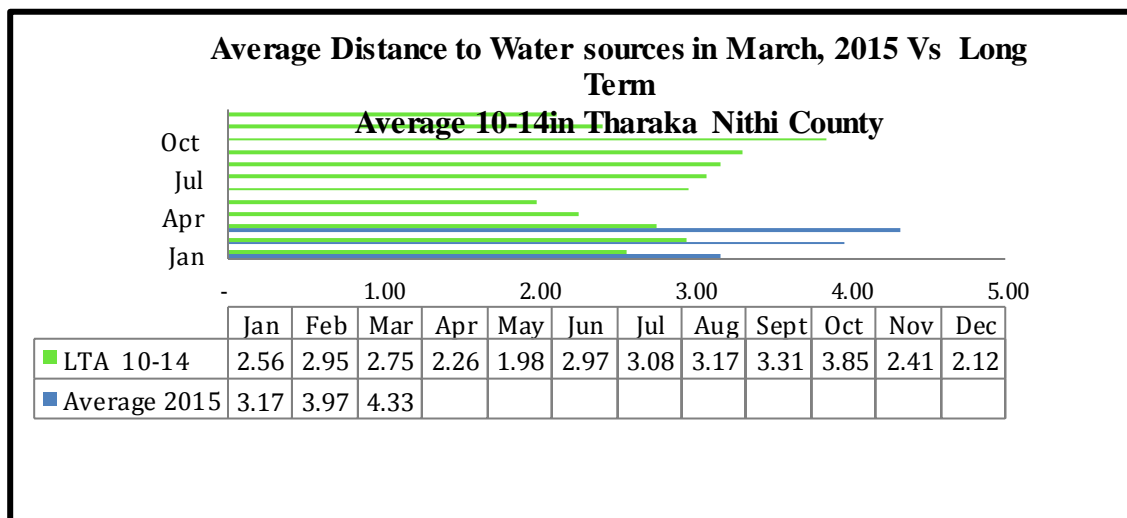
3.3.3 Availability of water for household consumption

- Household access distances to water remained a fairly comparable to that recorded in February at 3.80 km compared to 3.77 km in March.
- The Marginal Mixed Farming livelihood zone recorded the furthest return distances at 5.4 km compared to 3.8 km and 2.1 km in the Rain fed and the Mixed Farming livelihood zones respectively.
- The distance of household access to water was above the five-year long-term average of 2.37 km and the 2014 period at 3.53 km.



3.3.4 Livestock access to water.

- The average livestock distance to water sources increased from 3.97 km recorded in February to 4.33 in March, attributed to prolonged drought.
- The longest return distance to watering sources was recorded in the Marginal Mixed Farming livelihood zone at 6.7 km compared to 2.1 km and 4.2 km in the Mixed Farming and the Rain-fed cropping livelihood zones respectively.
- The average distance to water sources increased in comparison to the long-term five-year average of 2.75 km for this time of the year.

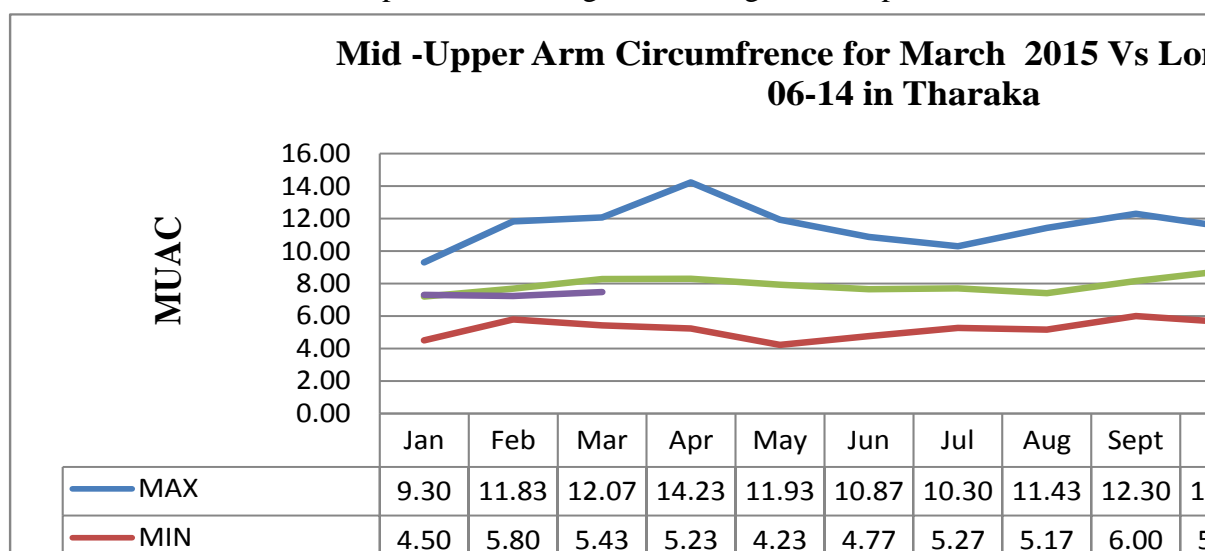


4.0 UTILISATION INDICATORS

4.1 Health and Nutrition Status

4.1.1 MUAC

- The proportion of children at risk of malnutrition whose MUAC measurement was below 135 mm remained stable at 7.47 in March compared to 7.23 in February 2015, attributed to enhanced supplementary feeding support from health institutions.
- The highest proportion of children at risk was recorded in the Marginal Mixed Farming zone at 13.3 percent especially in Kanjoro (33.9 percent) and Chiakariga (27.1 percent) compared to 0.3 percent and 8.8 percent in the Mixed Farming and Rain fed livelihood zones respectively.
- This is below normal compared to the long-term average of 8.28 percent.

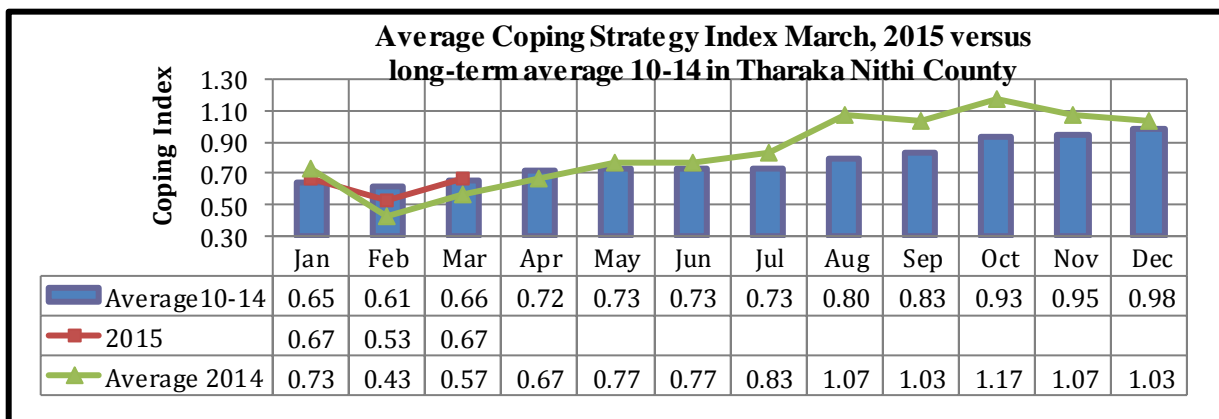


4.1.2 Health

- Top diseases reported in March are similar to the previous month. For the under-fives, these were Upper Respiratory Tract Infection (URTI, pneumonia, Confirmed and clinical malaria. The general population recorded, URTI, skin infection, clinical malaria, rheumatism and diarrhea.
- There is an increase in number of enrollment of clients with moderate acute malnutrition as reported in the health facilities.

4.2 Coping Strategy Index

- The coping strategy index for the period under review increased from 0.53 for the month of February to 0.67 for the period under review.
- The common coping mechanisms included reduced proportions on the meal ratios, increased reduction in number of meals portions, purchase of food on credit and sale of fuel wood and charcoal.
- The coping strategy index was highest in Rain Fed cropping livelihood zone at 0.8 Marginal Mixed Farming livelihood zone at 0.6 while Mixed farming livelihood zone recorded 0.6.
- This was above normal in comparison to 2014 average of 0.57 and comparatively similar to the five-year average of 0.66.



5.0 Current Interventions and Recommendations

5.1 Ongoing Non-food interventions

- Promotion of traditional high value crops in Tharaka North benefiting 2800 farmers at a cost of Ksh. 5 Million.
- Looming water conflicts due to drying up of rivers (Thanantu, URA and Thangatha) which was resolved through meeting with respective leaders and the community .
- Livestock Insects Pests Management & Control through Livestock Spraying by 13 Livestock Spraying groups supported by Kenya Tsetse and Trypanosomiasis Eradication Council (**KenTTEC**) formerly PATTEC through the District Veterinary Office at Gatunga and Mukothima by Veterinary Department and private sector at a cost of Ksh.503,000
- Training for water committees of the 30 repaired boreholes done for a total of 276 people. Covering simple technical maintenance of the BHs, collection of maintenance fee and sanitary awareness at the BH site done in February 2015 by International Aids Services (IAS).

5.2 Food Aid

- Food for fees relief to 3 Girls schools to keep girls in school funded by international Aid Services (IAS)
 - Marimanti Girls – Maize 120 bags, Beans 60 bags and 160 liters cooking oil.
 - Nkondi Girls – Maize 75 bags, Beans 38 bags and 120 liters cooking oil.
 - Chiakariga Girls – Maize 75 bags, Beans 37 bags and 120 liter cooking oil.
- School feeding programme for two Primary schools continue Ntujia Primary and Marimanti Primary
- Food basket programme for 80 beneficiaries around Marimanti continues Monthly. The food basket programme targets PLWHA, Orphans, elderly and single headed households who are not enrolled in other programs. Beneficiaries receive a monthly food ration of 11 kg maize, 9 kg beans and 2 litres cooking oil.
- Tharaka north Sub County received 314 bags of 50 kg of maize, 100 bags of 50 kg of beans ,324 bags of 50kg of rice and 18 cartons of cooking oil for the month of March to support vulnerable Households within the County.

5.3 Recommendations.

- Provision of drought tolerant seeds and conservation agricultural practises
- Promotion of Agro forestry.
- Promotion and sensitization on hygiene, sanitation and provision of water treatment chemicals for households.
- Enhance livestock disease surveillance across all livelihoods.

- Training of Water resource user committees on simple repairs, abstraction management and catchment conservation.
- Training of farmers on crop diseases and control.
- Promotion of pastures management and conservation training at the community level.
- Increase surveillance of malnutrition and disease incidences in the general population.
- Conduct a nutritional survey in Tharaka sub-counties.

6.2 Insecurity/Conflict/Human Displacement

- Land dispute conflicts were reported in Chuka Igamba Ng'ombe that resulted into three persons injured

6.3 Food Security Prognosis

- Most areas in the county may receive Normal to below Normal rainfall (depressed rainfall) as indicated by Kenya Meteorological Service.
- Forage is expected to regenerate following the start of the long rains.
- Livestock body condition is expected to remain stable across the livelihood zones.
- Terms of trade are expected to remain stable across the livelihood zones.
- The frequency of meal consumption at household level is expected to be fairly comparable to the month under review.