

National Drought Management Authority

TANA RIVER COUNTY

DROUGHT EARLY WARNING BULLETIN FOR JUNE 2018



A Vision 2030 Flagship Project



JUNE EW PHASE



Drought Situation & EW Phase Classification

Biophysical Indicator

The County is currently experiencing Normal vegetation conditions in EWS classification.

Rainfall:

- The county received normal rainfall amount in the month at 7.2mm. However, the Tana delta region of county continued to suffer from floods of the last rain season. Floods have not yet receded completely.
- The vegetation condition.** The 3-month VCI indicates that the County is currently experiencing an above normal vegetation greenness at 87.42. The values slightly increased when compared to the previous month where the VCI was at 83.98. All the Sub Counties are currently experiencing above normal vegetation greenness.

Socio Economic Indicators (Impact Indicators)

Production indicators

- Most livestock have remained in the hinterlands of the county and are closer to the households.
- The browse and pasture condition in the county are very good.
- The livestock body condition for both grazers and browsers are good.
- Milk production at household level is stable at 5.4 litres compared to that of the last month where the amount was at 5.5 litres.

Access indicators

- The average milk consumption in the county remained stable at 3 litres compared to the last month. Milk consumption remains below the normal average.
- The average livestock distance to the water sources remained below the normal at 4.5 km in this month. When compared to the last month where it was at 5 km. The return distance slightly reduced.

Utilization indicators

The percentage of children under the risk of malnutrition in this month was at 14.3% compared to that of May which was at 13.5%. The reduced nutritional status is attributed to poor milk production and consumption and also the lack of enough food in the household.

Early Warning (EW) Phase Classification

LIVELIHOOD ZONE	EW PHASE	TRENDS
Pastoral	Normal	Improving
Marginal Mixed Farming	Normal	Improving
Mixed Farming	Normal	Improving

Biophysical Indicators	Value	Normal ranges
rainfall amount	7.2 mm	>10.4mm
3-Month VCI	87.42	>35
State of water sources	2	5

Production indicators	Value	Normal ranges
Livestock Migration Pattern	Normal	Normal
Livestock Body Conditions	Good	Good
Milk production	5.4 litres	>58 Litres
Livestock deaths (from drought)	No death reported	No death
Crops area planted (%)	Nil	67%of LTA

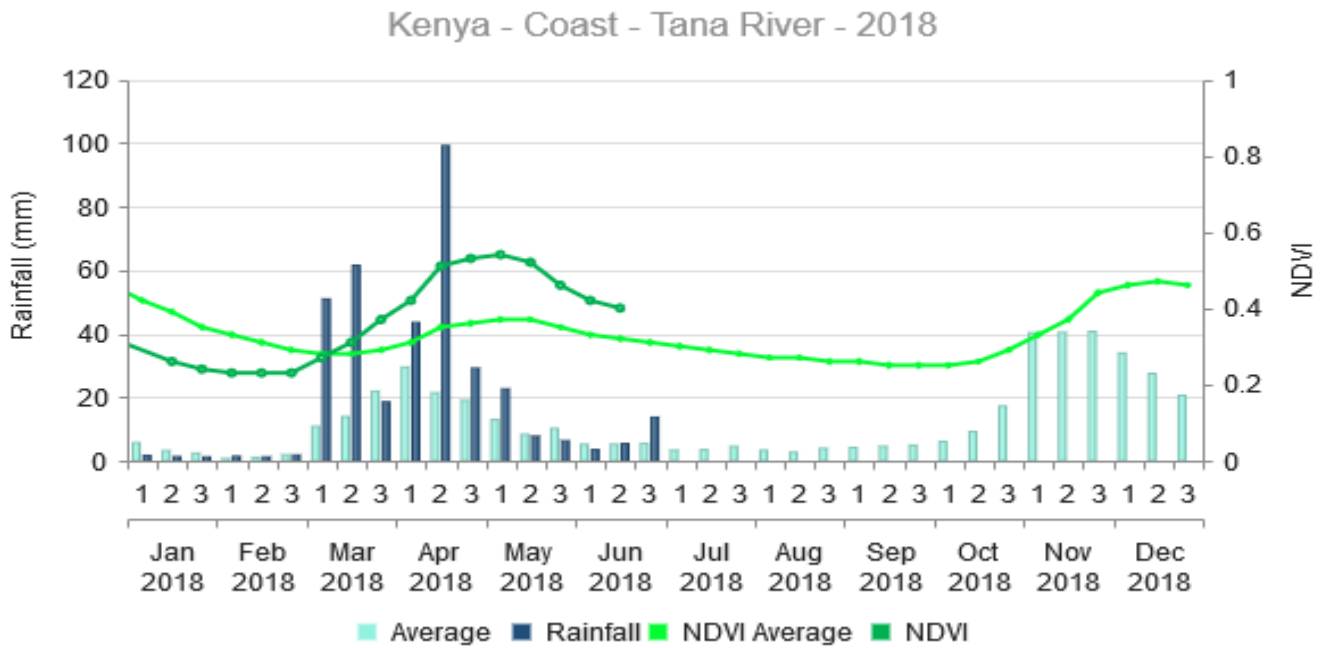
Access Indicators	Value	Normal ranges(LTA)
Terms of Trade (ToT)	80	81
Milk Consumption	3 litres	>37 Litres
Average return distance to the water sources	4.5 km	7.4 km

Utilization indicators	Value	Normal ranges
MUAC(% at mid-risk of malnutrition)	14.3%	<12(%)

<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 Increased HH Food Stocks Kidding (Sept) 	<ul style="list-style-type: none"> Short rains Planting/weeding 								
Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec

1. CLIMATIC CONDITIONS

1.1 RAINFALL PERFORMANCE



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Fig. 1. The graph above shows the rainfall amounts received during the month of June and also the NDVI trend comparing both to the long term averages.

1.2 AMOUNT OF RAINFALL AND SPATIAL DISTRIBUTION

- Normal rainfall amount was received in this month when compared to the long term average. The county received an average rainfall of 7.2 mm in this month, slightly above the long term average of 5.6 mm.
- The county received 3.4mm, 5.3mm and 13.6mm during the first, second and third dekad respectively.
- The graph above shows the rainfall amounts received in June and compares it to the long term averages.
- The county received below normal amounts during the first dekad of this month as show in the graph above.

2. IMPACTS ON VEGETATION AND WATER

2.1 VEGETATION CONDITION

2.1.1 Vegetation Condition Index (VCI)

- The 3-M Vegetation Condition Index indicates that the county is experiencing an above normal vegetation greenness recording a VCI of 87.42 by the end this month. The VCI slightly improved when compared to that of May which stood at 83.98.
- The improvement in the VCI is attributed to the good performance of the past seasonal rains and also the light off seasonal shower experienced during this month.
- In comparison to same time in the previous years, the vegetation conditions are above the normal average.
- The matrix below shows the vegetation condition in the county;

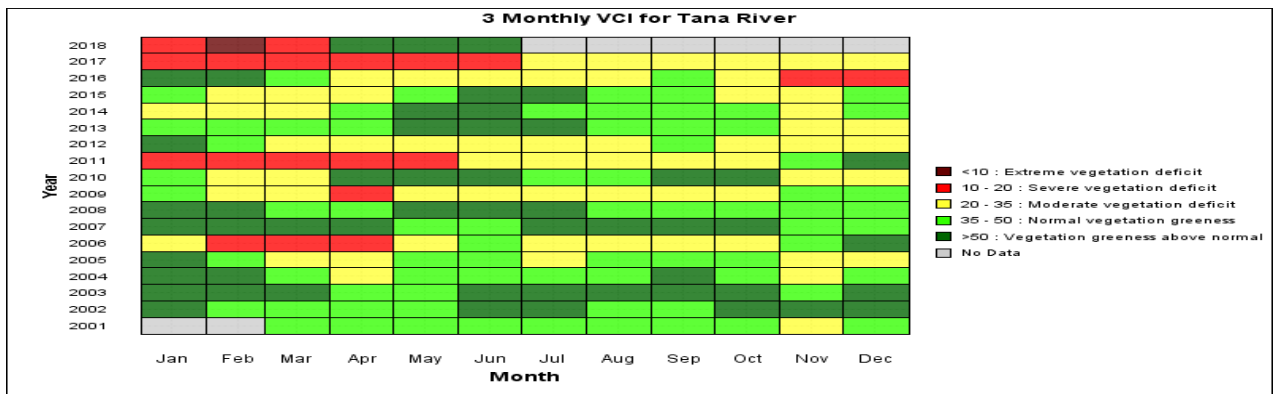


Fig. 2 Source: University of Natural Resources and Applied Life Sciences (BOKU), Institute of Surveying, Remote Sensing and Land Information

- The graph below further depicts the 3-month VCI trend for this month and compares it to the same time in 2017; the VCI values, the long term average, the maxima and minima.
- The current County VCI remains above the maxima in this month when compared to the same time of the previous years.

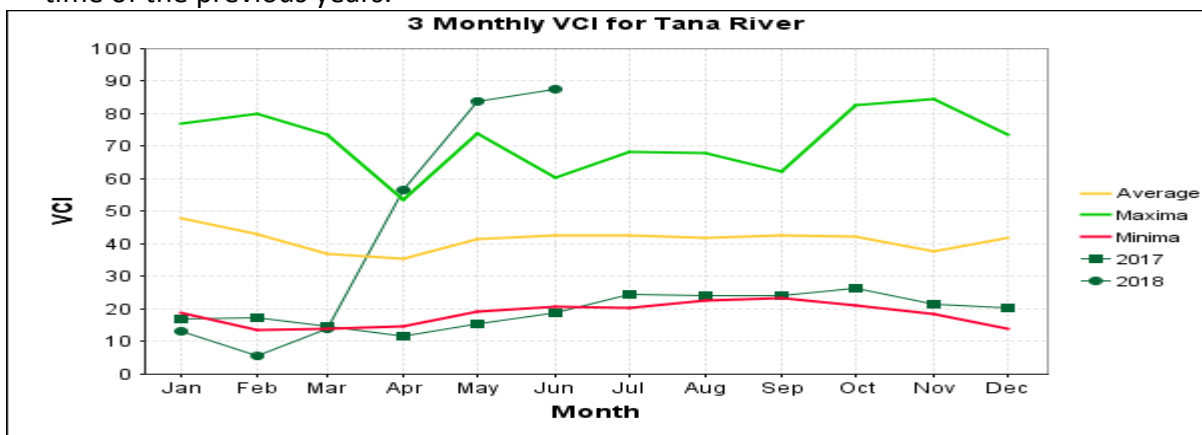


Fig. 3 Source: University of Natural Resources and Applied Life Sciences (BOKU), Institute of Surveying, Remote Sensing and Land Information

Sub county VCI

All the sub counties in Tana River County; Bura, Galole and Garsen sub counties are experiencing an above normal vegetation greenness. There was a slight improvement in vegetation greenness in all the sub counties in this month when compared to that of May.

Bura

The 3-month Vegetation cover for Bura is currently at 104.16 compared to last month's VCI of 88.78, the vegetation conditions have greatly improved and is currently way above the normal.

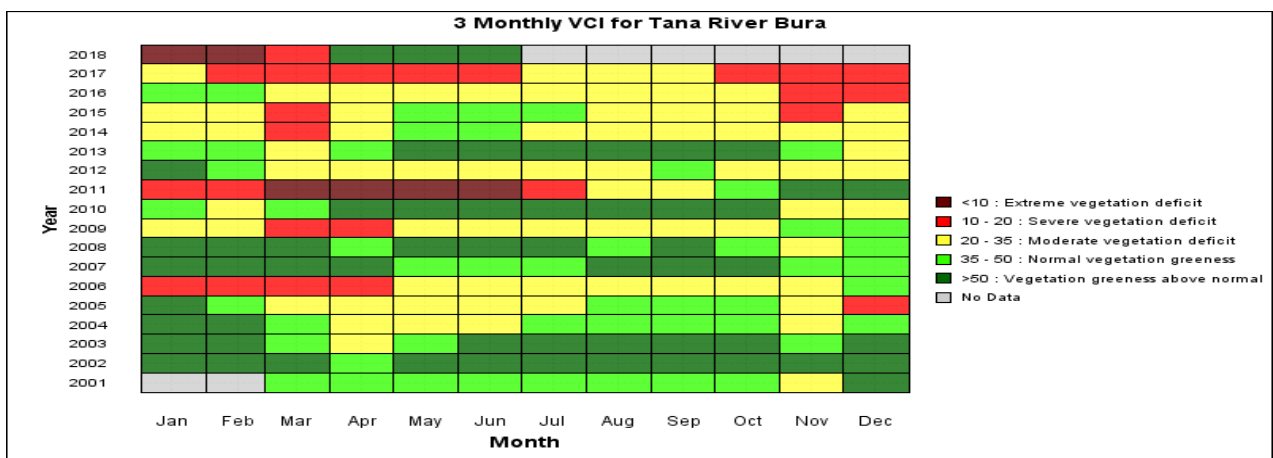


Fig. 4 Source: University of Natural Resources and Applied Life Sciences (BOKU), Institute of Surveying, Remote Sensing and Land Information

Galole

The 3-month Vegetation cover for Galole is currently at 86.55 compared to last month's VCI of 83.83. As shown in the matrix below, an above normal vegetation greenness is also being experienced in this sub county.

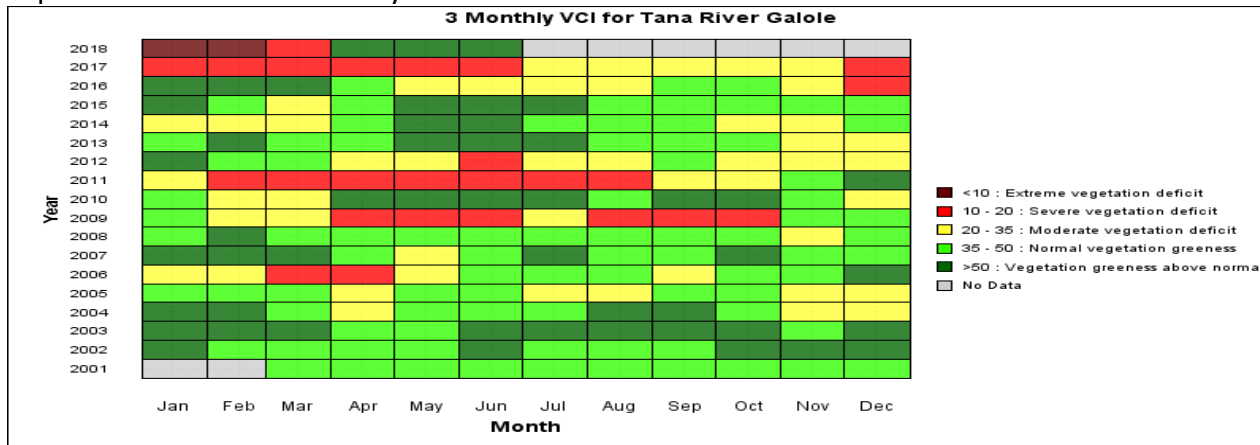


Fig. 5 Source: University of Natural Resources and Applied Life Sciences (BOKU), Institute of Surveying, Remote Sensing and Land Information

Garsen

The 3-Month VCI for Garsen is currently at 73.76 compared to last month's VCI of 80. The VCI in this sub county decreased in this month. The VCI of 73.76 indicates that the sub-county is still experiencing an above normal vegetation greenness in this month.

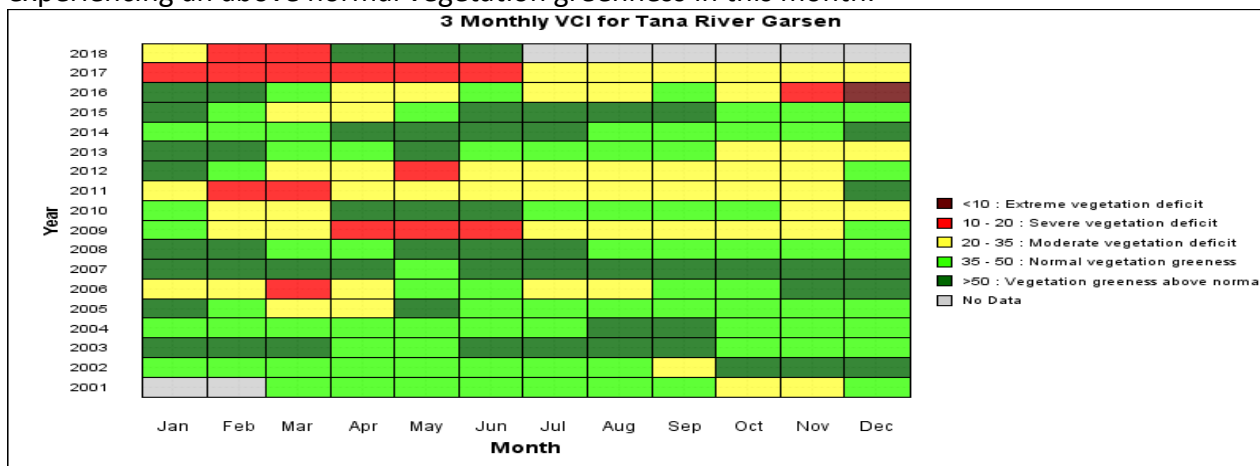


Fig. 6 Source: University of Natural Resources and Applied Life Sciences (BOKU), Institute of Surveying, Remote Sensing and Land Information

2.1.2 Pasture

- The pasture quality and quantity is currently good in the county.
- This is due to the good rainfall amounts that was received all over the county during the past seasonal rains and also the light showers received during this month.
- The pasture quality and quantity is currently above the normal when compared to the same time of the past years.

2.1.3 Browse

- The quantity and quality of browse within the County is also good compared normal at this time of the year.
- The overall vegetation conditions in the county is good and can sustain the livestock for more than 2 months.

2.2 WATER RESOURCE

2.2.1 Sources

- The communities within the pastoral livelihood zone depend on seasonal rivers bed, pans, shallow well and borehole while Marginal mixed and the Mixed farming livelihood zones depend on River Tana and boreholes for domestic water use.
- The rainfall received during the month of March April and May has recharged all the major water sources and all the livelihood zones can access enough water for the household and livestock use.

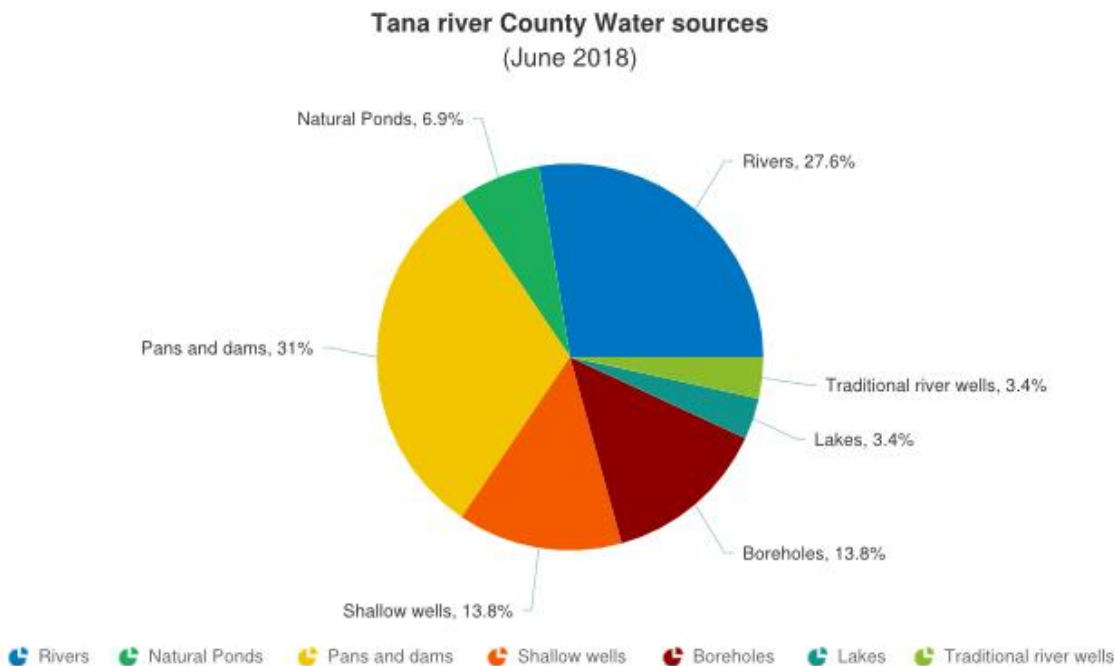
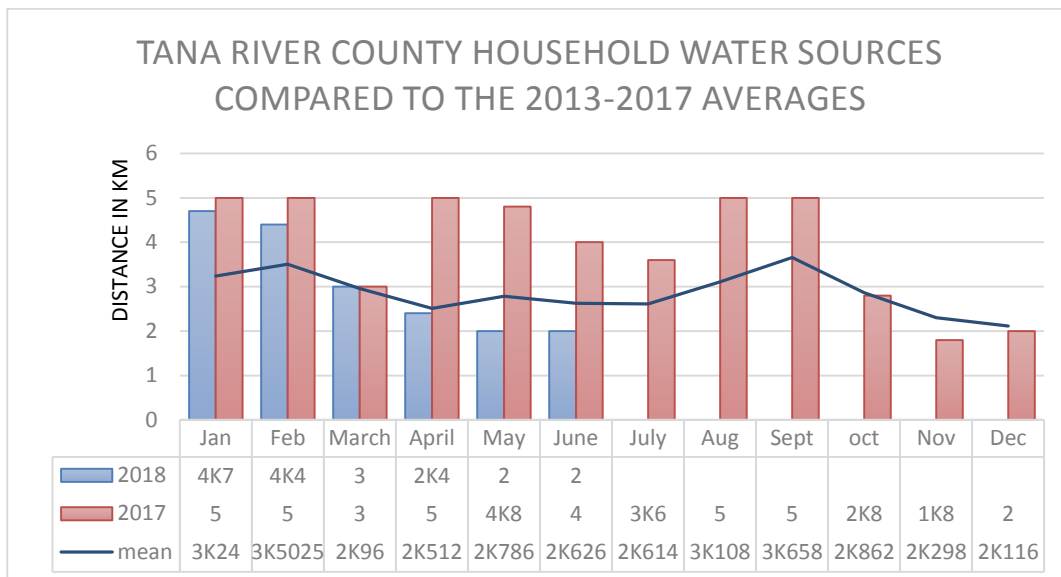


Fig 7. This pie chart shows the different water sources in the county for this month.

2.2.2 Household access and Utilization

- The average return distance from the households to the main water sources in June was 2 kilometres.
- In comparison to May, the distance covered by the households to the main water source remained stable in this month.
- Most of the H/H in the pastoral livelihood zones depends on the pans, shallow wells and traditional river wells for their domestic needs.
- All the water pans in the county have enough water, from the MAM rainfall, and can sustain all the livelihood zones more than one month.
- The households within mixed livelihood zones take approximately 30 minutes to reach water points compared to households within Pastoral livelihood zones which take up to 1.5 hours to water points.
- The current distances are shorter than the normal during this time of the year.



2.2.3 Livestock access

- The average distance covered by livestock from the grazing areas to main water source in June was 4.6 kilometres.
- In comparison to May where the livestock covered 4.5 kilometres, the distances covered by the livestock remained stable during this month. This is attributed to the availability of water in the major water sources from the good performance of the past seasonal rains.
- The distance covered by livestock to access water remains below the same time in 2018 and the long term average.

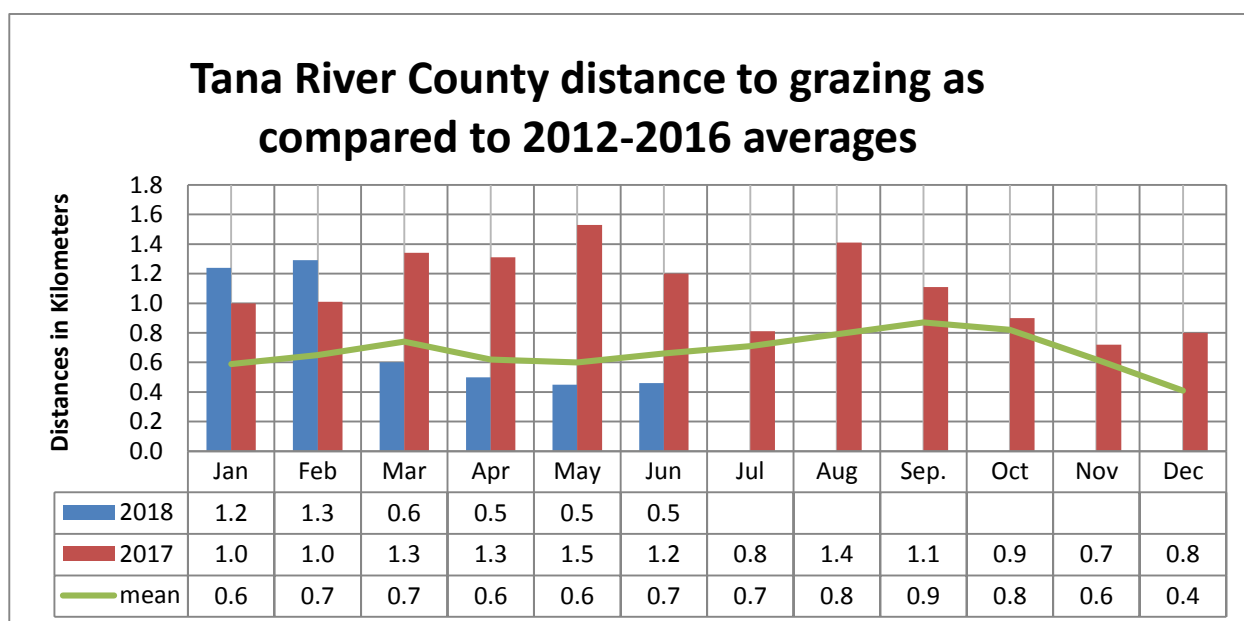


Fig 9 n=450 Households

3.0 PRODUCTION INDICATORS

3.1 LIVESTOCK PRODUCTION

3.1.1 Livestock Body Condition

- The current Livestock body conditions of the browsers and grazers remains good. This is attributed to the availability of sufficient browse and pasture for the livestock and also the shorter distance covered from the grazing area to the water sources.

3.1.2 Livestock migration

- Most of the Livestock are have remained in the pastoral livelihood zone of the county during this month. No significant migration of livestock was noted.

3.1.3 Livestock Diseases

- The most vector borne diseases are Trypanosomiasis both for cattle and camels in the Delta and in other regions; heart water and Babesiosis and others such as Helminthiasis have been reported. Fleas and ticks infestation has also been evidenced in most herds of livestock.
- The Delta region is worst in all the sub-counties in terms of Disease outbreak. There are cases of CCPP and Trypanosomiasis continuously is reported in this sub county.
- Parasitic infestation cases have is also prevalent, especially fleas, mites and ticks in all livestock species.
- Suspected cases of rift valley fever were reported in Tana Delta. One case of the same was confirmed in this region and more blood samples were collected and the results are being awaited.

3.1.4 Milk Production

- On average the milk produced per household within Tana River County was 5.4 litres in the month of June. The amounts remained stable in this month when compared to the month of May which was at 5.5 litres. This is attributed to the fact that the livestock are in the breeding season.
- In comparison to the long term mean, the current average in milk production is still below normal average during this time of the year.

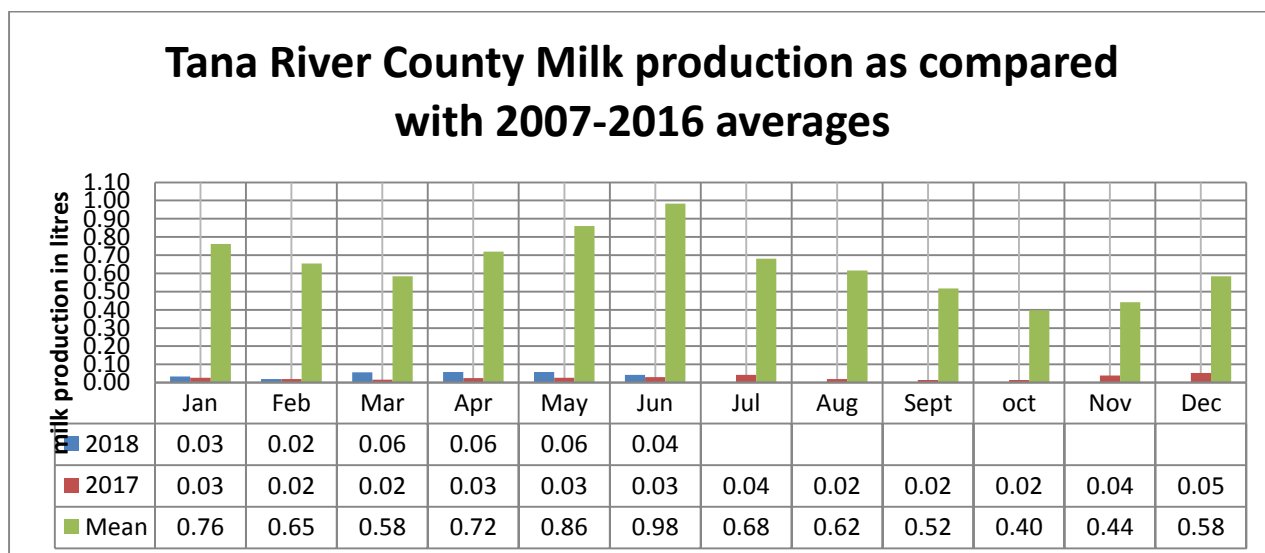


Fig 10n=450 Households

3.1.5 Livestock deaths

- No livestock death reported.

3.2 RAIN-FED CROP PRODUCTION

2.2 3.2.1 Stage and Condition of food Crops

- Most of the crops on farms along river Tana are now at the germination stage. The farmers planted on the flood plain after the flood waters receded.
- While the crops on irrigation farm are at the flowering and fruiting stage.
- The irrigating farmers have reported infestation by stalk borers.
- Currently, there are no food stocks available at the household level in all the livelihood zones and heavily depend on purchased foodstuff and relief food from KRCS, the county and national governments.

4.0 MARKET PERFORMANCE

4.1 LIVESTOCK MARKETING

4.1.1 Cattle Prices

- The average market price of a mature 3-year-old bull in the month of June was Ksh.26056. In comparison to the month of May, where the price of a 3-year-old mature bull was Ksh. 25600, the prices slightly increased in this month.
- The slight increase in the prices is attributed to the market dynamics and improved livestock body condition.
- The current cattle price of Ksh. 26056 is above the normal at this period of the year as shown on the graph below.

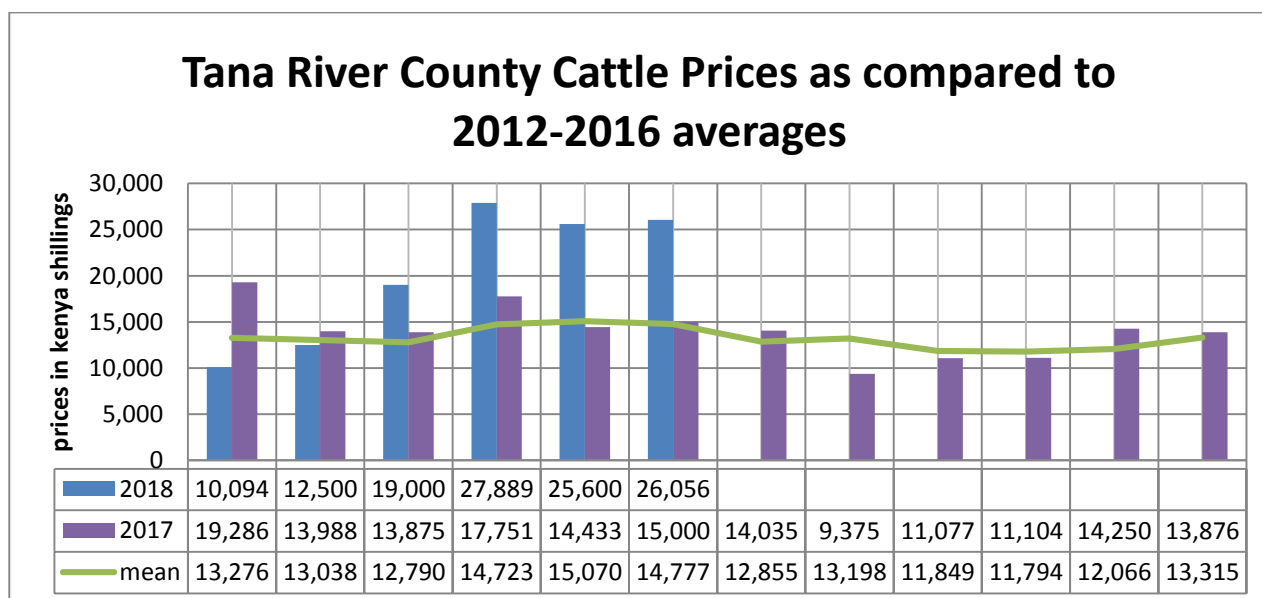


Fig 11n=450 Households

4.1.2 Goat Prices

- The average price of a medium size goat in the month of June was Kshs.4583. In comparison to the month of May where the average price of a medium size goat was Ksh. 4200. The prices in this month also slightly increased. The price variability is attributed to the market dynamics.
- The current goat price of Ksh.4583 is above the normal at this period of the year as shown on the graph below.

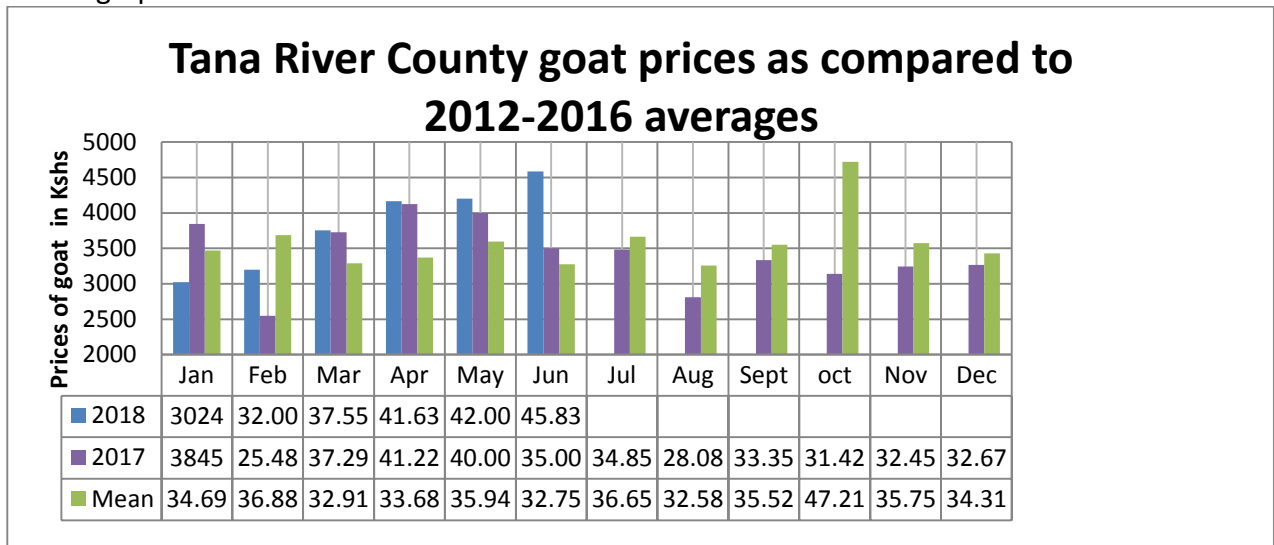


Fig 12n=450 Households

4.1.3 Sheep Prices

- The average farm gate price of a sheep in the month of June was Kshs.2902. The prices remained stable in this month when compared to that of the month of May which was at Ksh. 2906. This is attributed to the market dynamics.
- Compared to the mean of 2012-2016, the current price is above the normal at this time of the year.

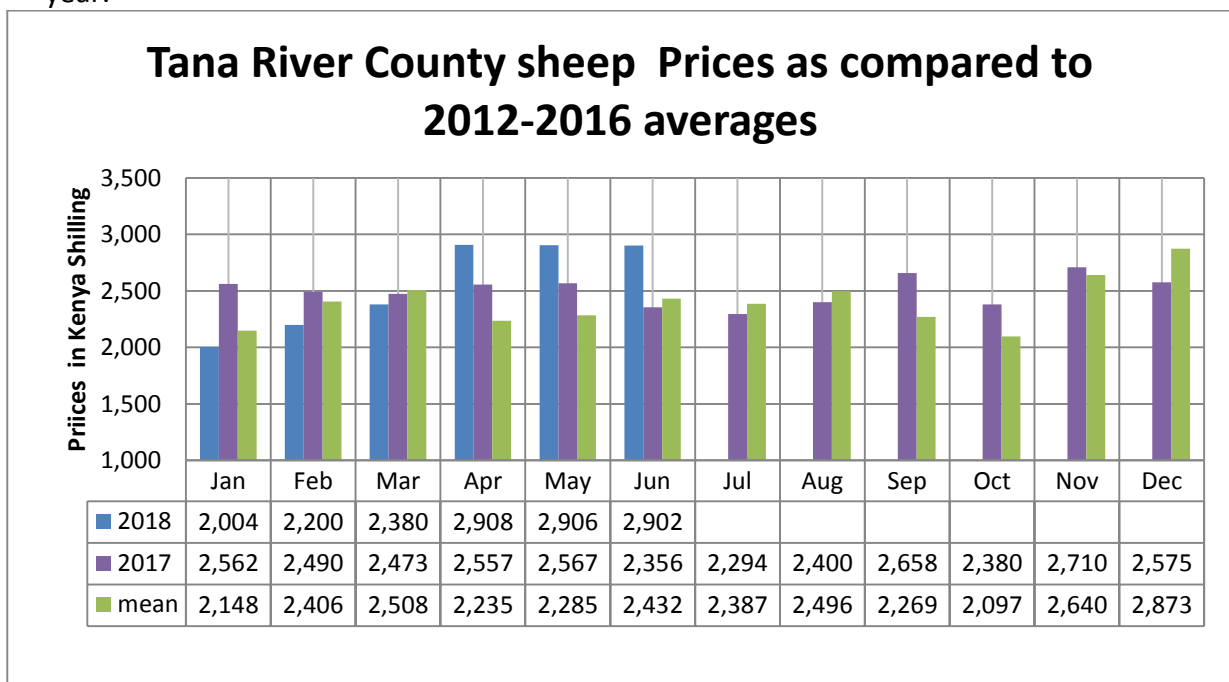


Fig 13n=450 Households

4.1.4 Milk Prices

Currently milk is retailing at an average of Kshs.55 per litre. The prices slightly reduced in this month when compared to the month of May which recorded a price of Ksh 60 per litre. This milk price remains above the average prices recorded during this time of the year.

4.1.5 Terms of Trade

Currently the terms of trade are 80 Kg of maize for a goat. Compared to the month of May which recorded an average of 84, the terms of trade slightly decreased in this month. The current terms of trade is above the long term mean of 75 Kg for a goat.

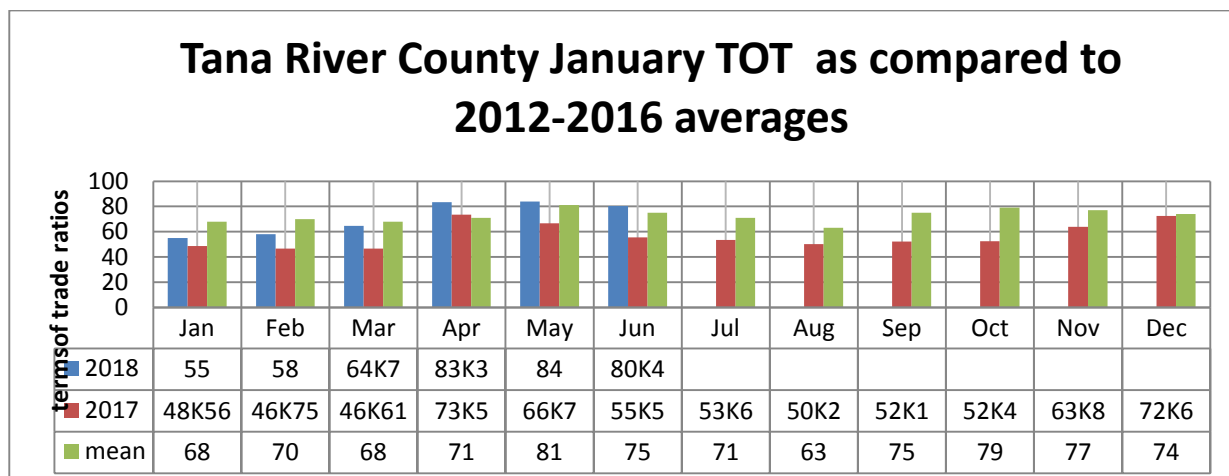


Fig 13n=450 Households

4.2 CROP PRICES

4.2.1 Maize

- The average maize market price per kilogram for the month of June was Ksh 57.
- When compared to the month of May, where the average price per kilogram of maize was Kshs.50, maize prices increased by the end of June. This is attributed to the market dynamics.
- In comparison to the average maize price at this time of the year, the current maize prices are above long term averages of Ksh 41 per kg.

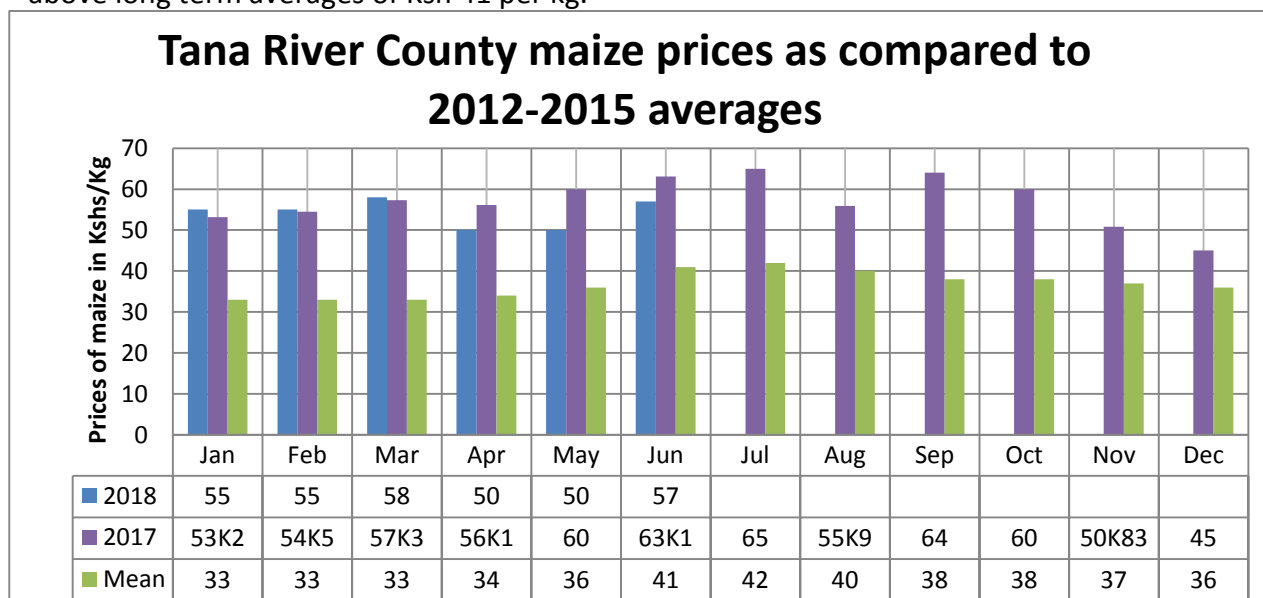


Fig 14 n=450 Households

5.0 FOOD CONSUMPTION AND NUTRITION STATUS

5.1 MILK CONSUMPTION

- On average the milk consumed per household was 3 litres in the month of June.
- In comparison to the month of May, where the average milk consumed per household was also 3 litres, the milk consumption also remained stable in this month.
- In comparison to a normal year, the current milk consumption rate per household is below normal at this time of the year.

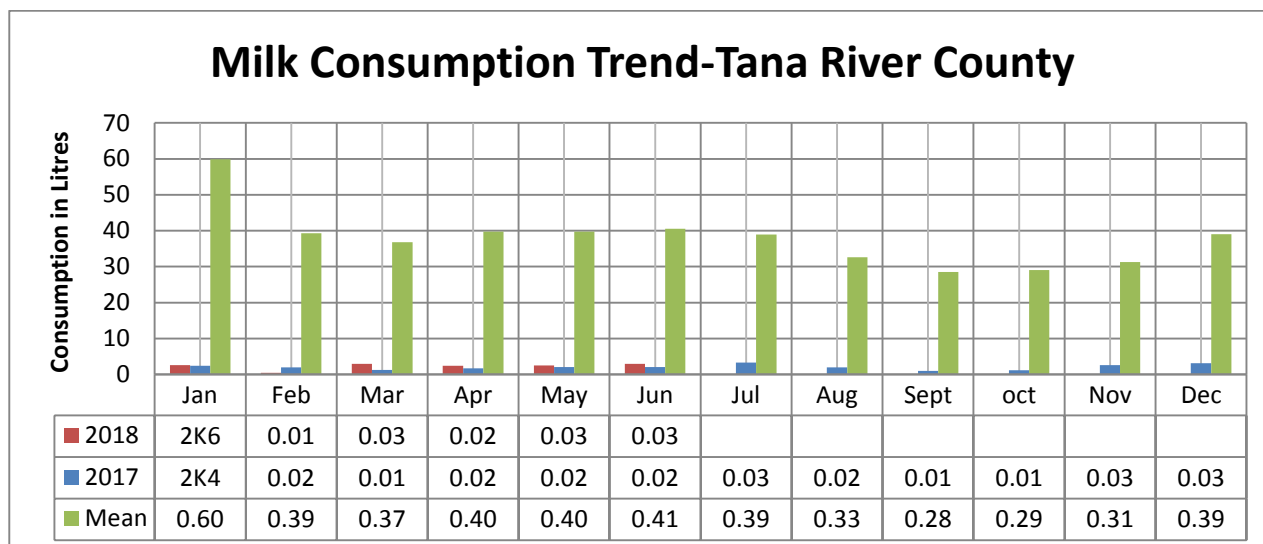


Fig 15 *n=450 Households*

5.2 FOOD CONSUMPTION SCORE

- The percentage of households with poor food consumption score in the county in June was 33.2% while those with border line score were 31.9% and with acceptable at 34.3%.
- The pastoral livelihood zone has the highest proportions of households with poor FCS at 60.7% and while the mixed livelihood zone has the lowest in the acceptable category at 0%.
- Tana delta has the highest in the acceptable category at 83.3%

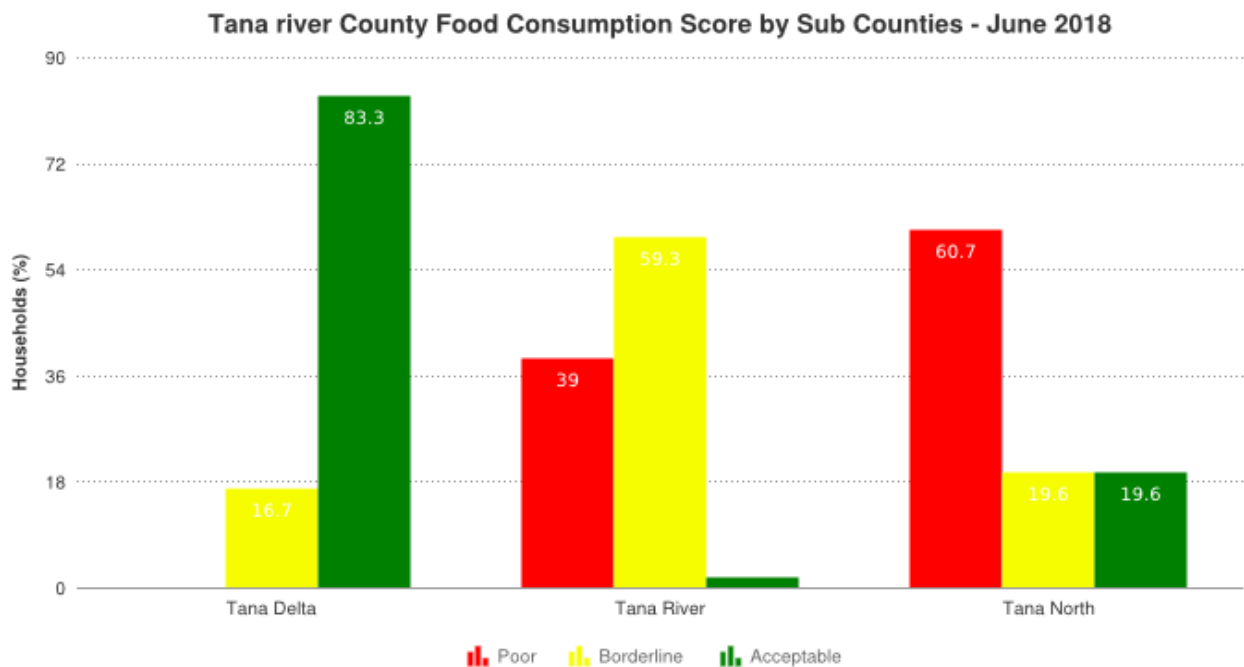


Fig 16. This figure show the food consumption score in the 3 livelihood zones of Tana River County

5.3 HEALTH AND NUTRITION STATUS

5.3.1 MUAC

- The percentage of children under the risk of malnutrition within the month of June was at 14.3% compared to that of June which was at 13.5%.
- The number of the children under the risk malnutrition slightly increased but still has remained high. This is attributed to the low milk production and consumption and also reduced food availability in the county. Compared to long term averages of 13.08%, the current percentage is above normal at this time of the year.

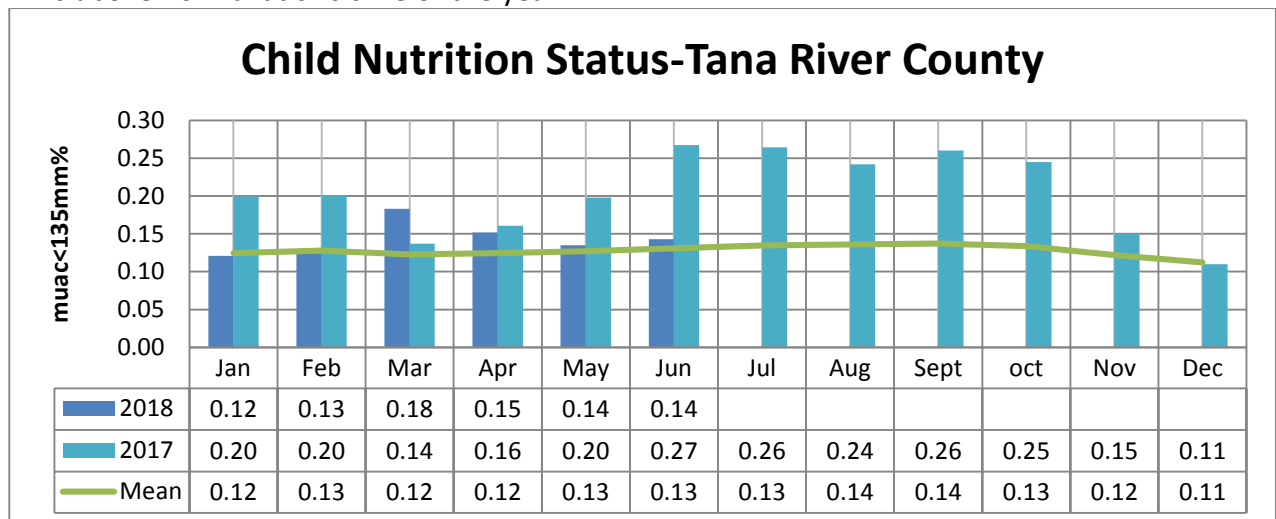


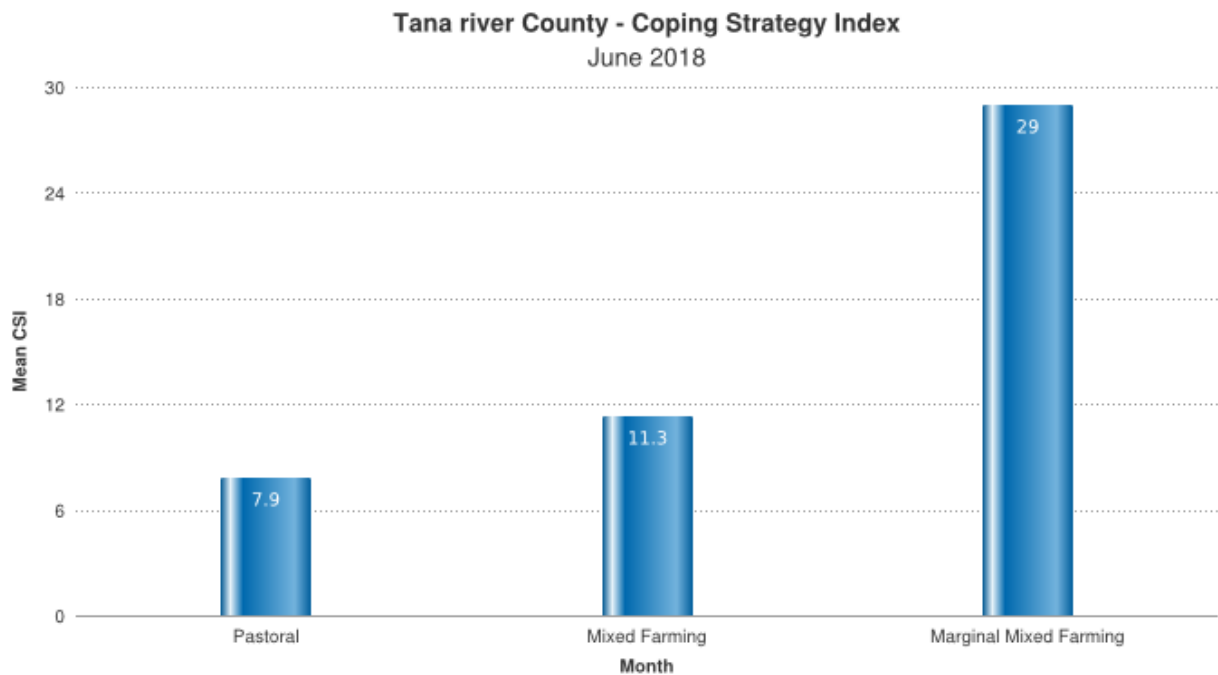
Fig 17n= 2,255 Children

5.3.2 Health

- The most prevalent disease in the general population was Upper Respiratory Tract Infection (URTI) as result of dust and wind. URTI was also the most prevalent disease among the under-fives followed by diseases of the skin, attributed to low sanitation and hygiene practices.

- Up to 80 percent do not treat their drinking water. These are some of the factors, which have led to the increase of diarrheal cases in the county.
- Suspected case of cholera were reported in tana north. No death from cholera have been reported during the month under review.

5.4 COPING STRATEGIES



- The coping strategy index for the month under review was at 16.07.
- Compared to the month of May where, the CSI for the county was at 14.67, the CSI reduced.
- When compared across the livelihood zones, coping strategy index for Pastoral, mixed and marginal mixed livelihood zones were 7.9, 11.3 and 29 respectively hence households in marginal mixed livelihood zones employed more coping strategies than those in the mixed livelihood zone and pastoral livelihood zone.
- The graphs above show the mean copying strategy based on the livelihood zones.
- The copying strategies adopted by the mixed and marginal mixed livelihoods included;
 - Credit from petty traders.
 - Relief food
 - Livestock migration and herd splitting
 - While marginally mixed and mixed livelihood zone heavily depend on;
 - Charcoal burning
 - sale of wood product
 - manual labour
- Consumption based coping strategies adopted by all households in the month under review were dependence on less preferred, less expensive food, reduced frequency of consumption and portion size of meals.

6. CURRENT INTERVENTION MEASURES

6.1 NON-FOOD INTERVENTIONS

- Distribution of NFI's by the NGO (World Vision, KRCS, IOM, Samaritan Purse)
- Distribution of seeds to the farmers by German-Agro Action.
- Measles vaccination for children under 5 years by KRCS/UNICEF
- Cash transfer programmes by Catholic Relief services, ECO and National Government.
- Construction of a water pan (Bulto Abarufa) dam in Wayu Ward) by NDMA/KRDP
- Repair of water bowser by NDMA
- Countywide deworming exercise in all schools.
- Restocking exercise of 200H/H each given 10 Goats.
- Development of Ward CP's and revision of county CP.

6.2 FOOD AID

- FFA targeting 45,900 beneficiaries in Tana delta and Tana river sub-county, supplementation of feeding program in the entire county targeting PLWC, agricultural market access and linkage project (AMAL), school meal program(SMP) in all 161 primary schools, will also be responding to provide food and non-food items to 700 households in need who are displaced by the floods in the entire county through KRC
- SFP/OTP with FFA/GFD linkage being undertaken by GOK, MOH, IMC UNICEF in all operational health facilities across the County
- RED CROSS-FFA-targeting 21,939 people within Tana River, Tana Delta and Tana North. PRRO/Food for Assets - The New PRRO beneficiary target for the county is 34,320 out of whom 45,900 households will be under FFA while GFD is 4,900.
- Public primary schools are under regular School Meals Program - current primary enrolment stands at 59,419 pupils.
- Food aid in terms of cereals, pulses and oil for the general public targeting 10,000 H/H -by National Government.

7. EMERGING ISSUES

7.1 Insecurity/Conflict/Human Displacement

The ongoing floods from long rains have caused severe destruction of property and infrastructure in the county.

The flood waters have remained on most farms and villages in the county, mainly in Tana Delta. Most infrastructures that were destroyed by the floods have not been rehabilitated. There are over 127 flood displaced camps county wide.

7.2 Food Security Prognosis

- Recurrent failure of the seasonal rains for the last 3 seasons has negatively affected food security situation in all the livelihood zones in the county. The situation was further worsen by the resent flood.
- Currently, the households have no food stocks and the prices of essential commodities continues to increase, making it inaccessible to most households. This is attributed to the previous severe drought conditions followed by severe flooding from the ongoing long rains.

8. RECOMMENDATIONS

- Enhance relief food distribution in areas affected by floods and previous drought. -Distribution of NFI to the affected households.

- Enhance support to large and small scale irrigation activities through provision seeds and fertilizers.
- Disease surveillance within the areas affected by floods and the continuation of malaria control initiatives to undermine the prevalence rates.
- Disease surveillance, vaccination and de-worming
- Conduct integrated outreaches and health promotion activities, Treatment of Cholera cases, water sampling and decontamination of surfaces, Active case finding and provision of food supplements
- Explore sustainable measures to overcome incidences of human/wildlife conflicts which have become a food insecurity threat across the livelihood zones.
- Enhance resettlement of flood victims.
- Support funding of resilience projects and programmes, for example, restocking, provision of seeds and farm inputs, and subsidized cost of veterinary drugs.