



A Vision 2030 Flagship Project



National Drought Management Authority EMBU (MBEERE) COUNTY DROUGHT EARLY WARNING BULLETIN FOR AUGUST 2021

AUGUST DROUGHT EW PHASE	Early Warning Phase Classification										
<p>Drought Status: ALERT</p> <p>Maandalizi ya mapema</p>	LIVELIHOOD ZONE	EW PHASE	TRENDS								
	Marginal Mixed Farming	Alert	Stable								
	Mixed Farming	Alert	Stable								
	County	Alert	Stable								
<p>Drought Situation & EW Phase Classification</p> <p>Biophysical Indicators</p> <ul style="list-style-type: none"> ▪ The month of July has been dry, cold and foggy. ▪ The vegetation greenness remains above normal ▪ Pasture and browse condition deteriorated. <p>Socio-Economic Indicators (Impact Indicators)</p> <p>Production Indicators</p> <ul style="list-style-type: none"> ▪ Land preparation is ongoing. ▪ Livestock body condition is fair to good. ▪ Milk production decline though was above normal. <p>Access Indicators</p> <ul style="list-style-type: none"> ▪ Terms of trade remain favourable and above normal ▪ Milk consumption remain above normal. ▪ Distances to water sources increased for both households and livestock. <p>Utilization Indicators</p> <ul style="list-style-type: none"> ▪ None of the sampled children were moderately malnourished ▪ Out of all sampled households, only 9% had borderline food consumption. ▪ Household coping strategy index increased compared to last month. 	Biophysical Indicators	Value	Normal ranges								
	Rainfall (% of normal)	10	80-120								
	VCI-3 month	40.16	35-50								
	VCI-1-month April	36.2	35-50								
	Forage Condition	Fair-Poor	Fair								
	Production indicators	Value	Normal ranges								
	Crop Condition	-	Good								
	Livestock Body Condition	Poor to fair	Good								
	Milk Production (in litres)	1.2	0.7								
	Livestock Migration Pattern	No	Normal								
	Livestock Deaths (from Drought)	No death	No death								
	Access Indicators	Value	Normal ranges								
	Terms of Trade (ToT)	176	175								
	Milk Consumption (in litres)	1.3	0.7								
	Household Distance to Water Sources (in km)	5.1	4.7								
Livestock Distance to Water Sources (in km)	6.3	6									
Utilization indicators	Value	Normal ranges									
Nutrition Status, MUAC (% at risk of malnutrition)	0	<0.1									
Coping Strategy Index (rCSI)	2.55	>7.43									
Food Consumption Score (%)	92	> 80									
<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 								
Dry Season	Long Rains	Dry Cool Season	Short Rains Season								
Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec

1.0 CLIMATIC CONDITIONS

1.1 Rainfall Performance.

- The weather conditions during the month under review continued being dry and cold coupled with early morning fog.
- The first dekad recorded 1.4 mm, second dekad recorded 0.9 mm and the third dekad recorded 1 mm of precipitation.
- According to WFP-VAM, average precipitation recorded decreased by 66.7 percent from 3.3 mm in the month of July to an average of 1.1 mm during the month under review.
- The recorded average of 1.1 mm was higher compared to the monthly WFP – VAM average of 2.2 mm.

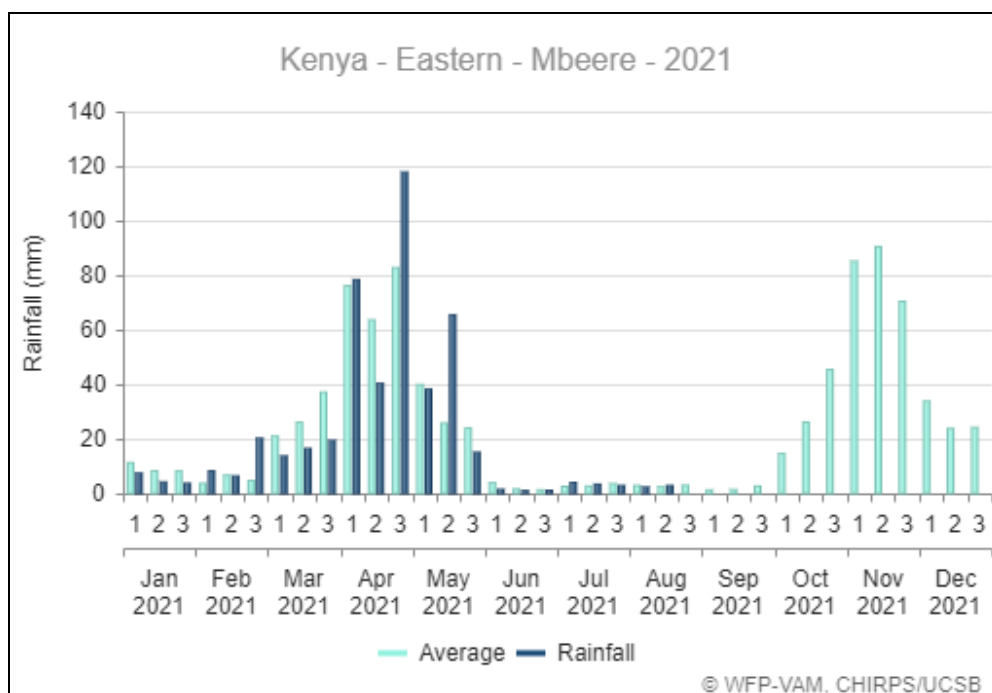


Figure 1: Rainfall performance in Mbeere North and South Sub Counties

1.2 Amount and spatial distribution of rainfall

- In the month of August, there was no recorded rainfall in the rain gauge stations.
- The month has been dry, cold and foggy.

2.0 IMPACTS ON VEGETATION AND WATER

2.1 VEGETATION CONDITION

2.1.1 Vegetation Condition Index (VCI)

- The vegetation greenness remained above normal in the month under review
- During the month of July, the vegetation condition index declined by 18.8 percent from 47.74 recorded in the month of July to 40.16 in the current month, this is can be attributed to the continuous dry and cold weather affecting the vegetative cover.
- Mbeere South sub-county recorded a lower 3-monthly VCI of 35.46 as compared to Mbeere North Sub County that recorded 3-monthly VCI of 44.86 (Figure 2a and 2b).

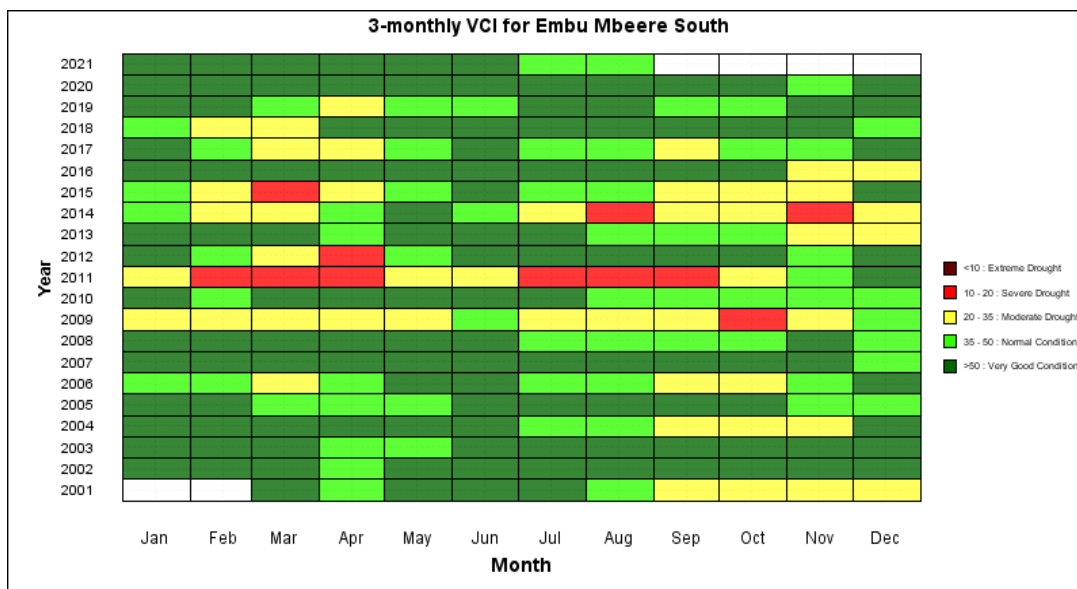


Figure 2a: 3-monthly VCI for Mbeere South sub- county [Source: MODIS]

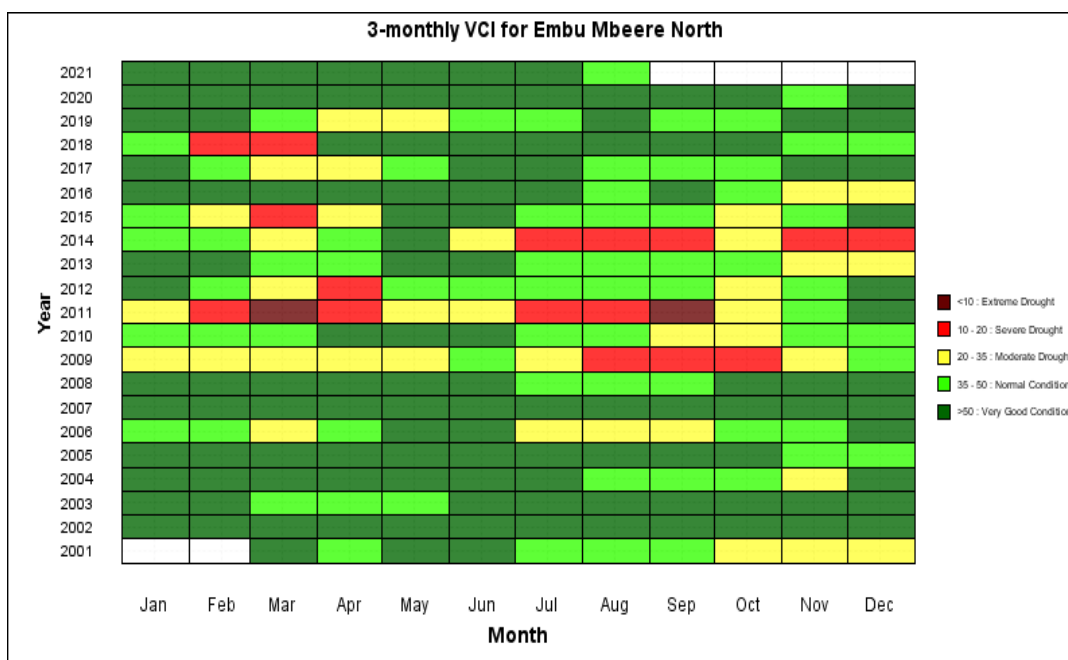


Figure 2b: 3-monthly VCI for North sub- county [Source: MODIS]

2.1.2 Pasture Condition

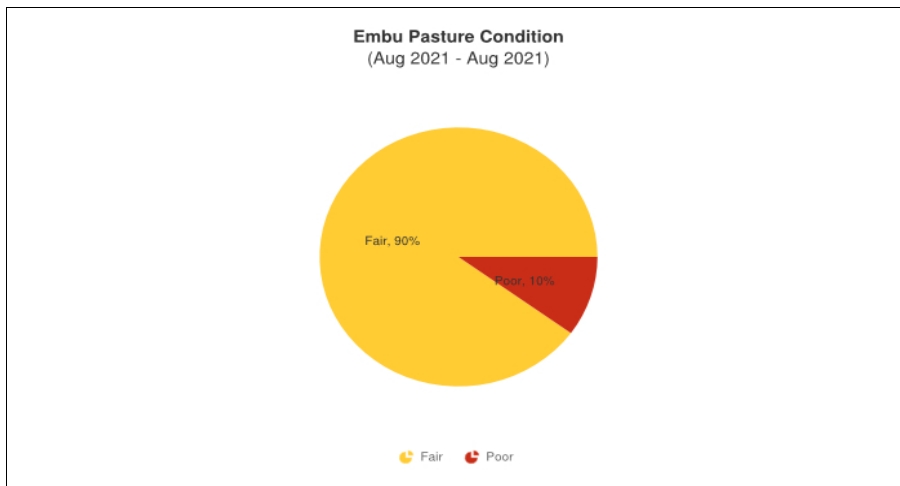


Figure 3: Pasture condition in Mbeere South and North sub counties.

- Pasture conditions were fair to poor across both livelihood zones in the month under review. Pasture conditions were fair in the Mixed Farming livelihood zone and while poor in some pockets the Marginal Mixed farming zone.
- Compared to last month which stood at 81.6 percent fair and 18.6 good pasture conditions are deteriorating. This could be attributed to the current weather conditions which is dry, windy, cold.
- Areas experiencing poor pasture conditions are Makima (Ndune), Kiambere (Karura, Kasafari, Ntharawe, Mariari) Muminji wards and some parts of Evurore (Iriaitune, Kamarandi, Mutitu location),
- The current pastures are expected to last 1-2 month in the Mixed Farming livelihood zones and 1 month in Marginal Mixed Farming livelihood zones.

2.1.3 Browse Condition

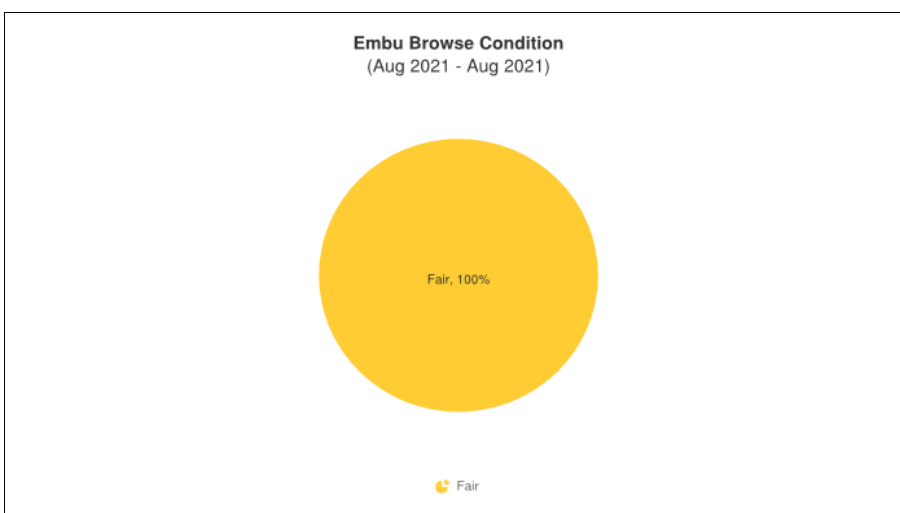


Figure 4: Browse condition in Mbeere North and South sub counties

- The browse condition was at fair across all livelihood zones as last month.

- Browse conditions are also deteriorating compared to last month which stood at 45.5 percent fair good and 54.5 percent fair. This could be attributed to the current weather condition which is dry and cold.
- Depressed browse condition was reported in areas on Kiambere (Karura, Kasavari, Ntharawe, Mariari) and Evurore ward (Kamarandi) which received depressed late rainfall.
- Browse is expected to last for one and half a month in the Mixed Farming zone and one month in the Marginal Mixed Farming zone.

2.2 WATER RESOURCE

2.2.1 Water Sources

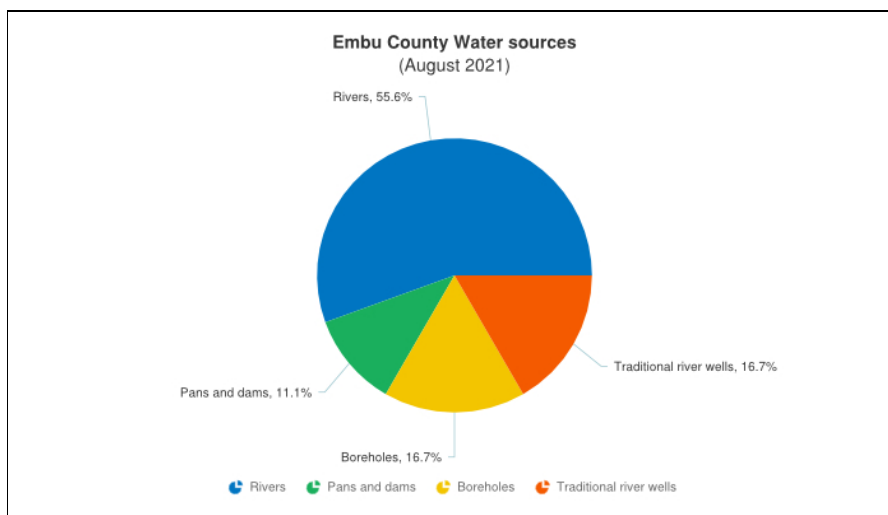


Figure 5: Water sources for Mbeere North and South sub counties

- The current water sources of water for both households and livestock across both livelihood zones are; rivers, traditional river wells, boreholes and pans and dams.
- Rivers are flowing at 50 percent their normal level since there is no recharge which pans and dams are at 40 percent full and can last for 3 in the mixed farming zones and at 10 -20 percent in the marginal mixed zones and can last for 1-2 month.
- The proportion of household's relying on pans and dams increased to 11.1 percent while those relying on shallow wells dropped to zero. This can be attributed to depleting water source since there is no recharge.

2.2.2 Household Water Access and Utilization

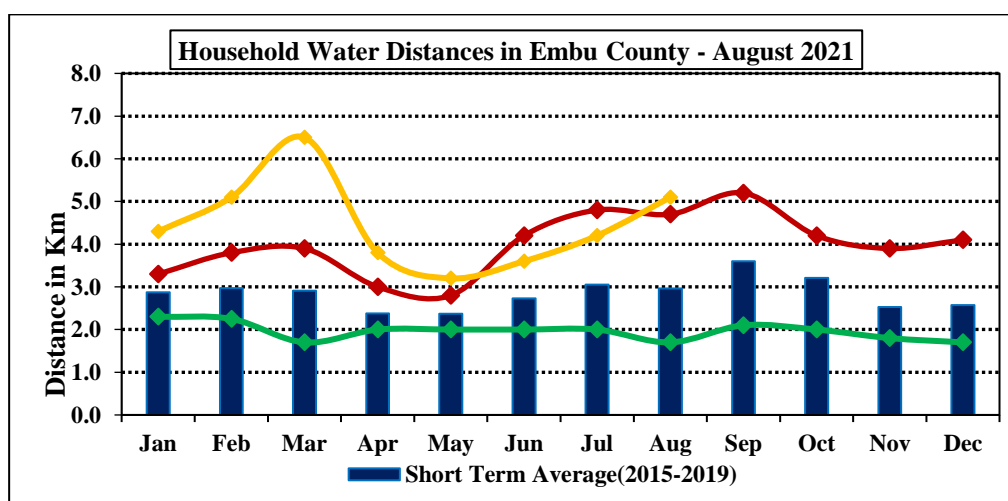


Figure 6: Household average distances to water sources

- The average household return distance to water sources increased by 17.6 percent from 4.2 km in July to 5.1 Km in August.
- The increase in distance can be attributed to drying of some of the water sources mainly roof catchment and shallow wells and reducing water levels sources. This has made households to seek alternative sources.
- The recorded average return distance to water sources is above by 8.5 percent compared to the bad year short-term average of 4.7 km

2.2.3 Livestock access to water from grazing areas

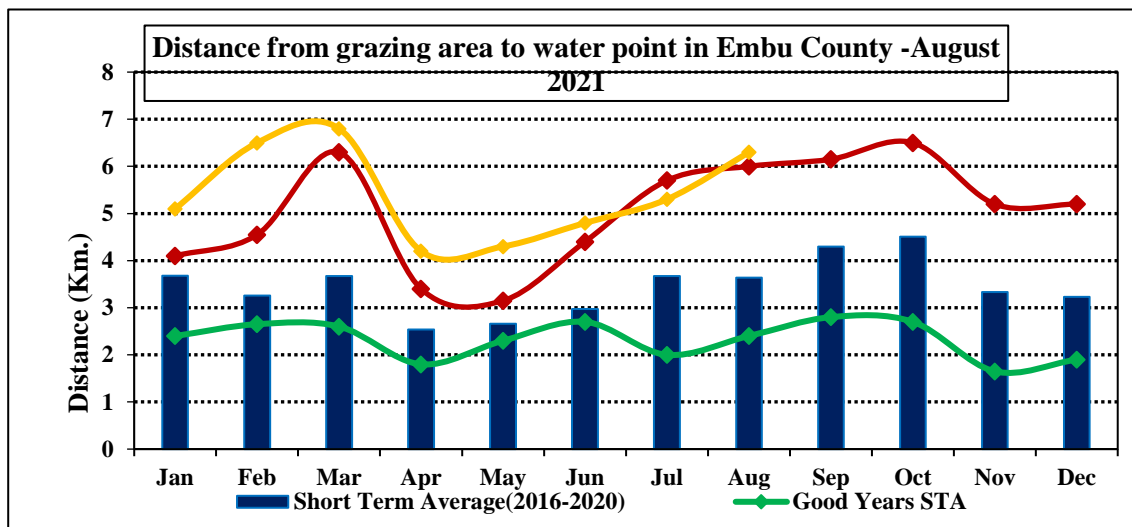


Figure 7: Livestock average return distances to water sources

- The average livestock return distance to water sources from grazing areas increased by 15.9 percent from 5.3 km in July to 6.3 Km in August.
- The increase in trekking distances can be attributed to diminishing pastures near water source this is forcing animals to trek farther in search of pasture and the water sources near them.
- The recorded average return distance is higher by 5 percent compared to the bad year short-term average distance of 6 km

3.0 PRODUCTION INDICATORS

3.1 LIVESTOCK PRODUCTION

3.1.1 Livestock Body Condition

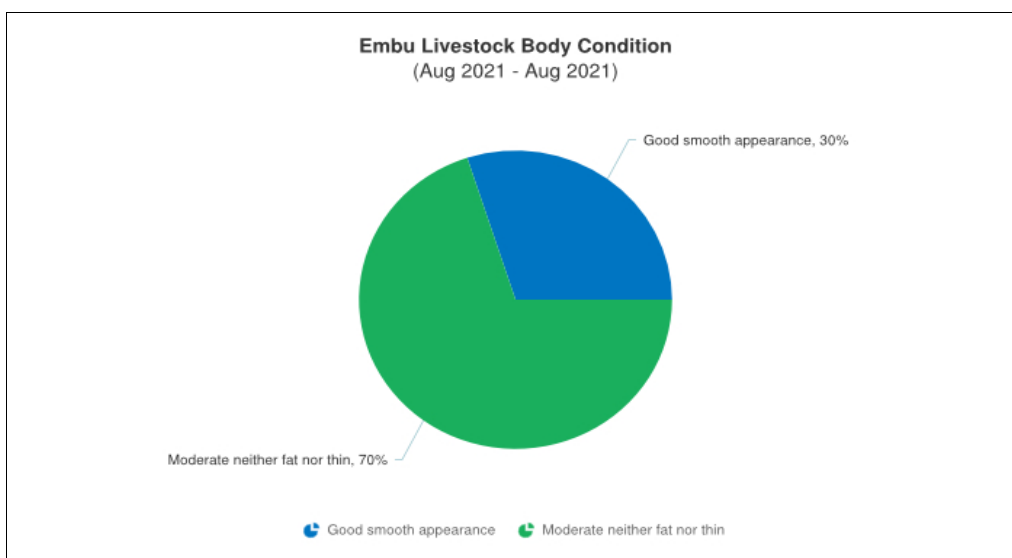


Figure 8: Livestock body condition in Mbeere sub counties

- The livestock body condition was moderate to good across all zones. Shoaat's condition was fair while cattle conditions were fair to poor.
- There were signs of fast deterioration of body condition of livestock as good conditions dropped from 81.8 percent in July to 30 percent in August. This can be attributed to fast decline in pasture and browse situation and increasing distances to watering points. The condition is likely to deteriorate further in the in the next months in Marginal Mixed Farming Zone. Worst of areas are Kiambere ward and sections of Evurore ward.
- The deteriorating body condition will lead to poor market prices for all stock which will have negative impacts on food security. Livestock keepers are advised to start off loading weak animals to avoid this foreseen situation through commercial destocking.

3.1.2 Livestock Diseases

- Vaccination and treatment on demand and are being done commonly by farmers with high value livestock in the mixed farming livelihood zone. Cases of FMD were reported in Mixed Farming. No drought related mortalities have been recorded so far.

3.1.3 Milk Production

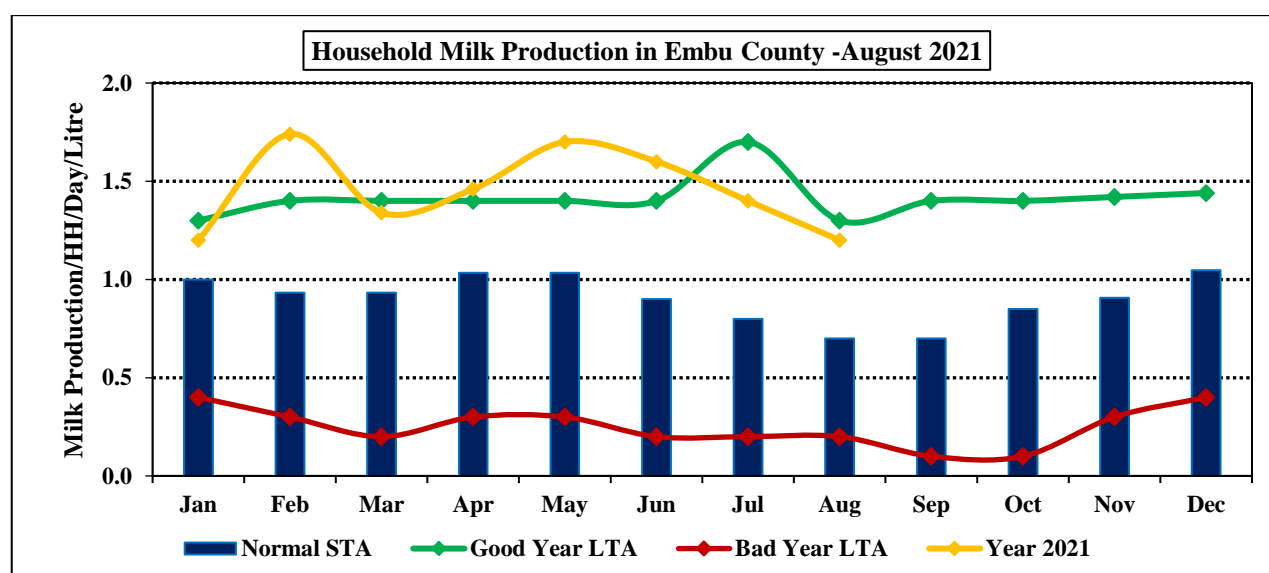


Figure 9: Milk production in Mbeere North and South sub counties

- The average household daily milk production declined by 14 percent from 1.4 litres in July to 1.2 litres in August.
- The decline in milk production can be attributed to the decline in pasture and browse, increased trekking distances which have affected the livestock body condition thus decrease in production in both quantity and quality.
- The current milk production is higher by 71 percent than the short-term daily household average of 0.7 litres.

3.2 Rain-Fed Crop Production

3.2.1 Stage and Condition of food Crops

- Main crops planted are beans, maize, sorghum, green grams and cowpeas.
- Land preparation is the only ongoing farm activity.

4.0 MARKET PERFORMANCE

4.1 LIVESTOCK MARKETING

4.1.1 Market Prices for Cattle

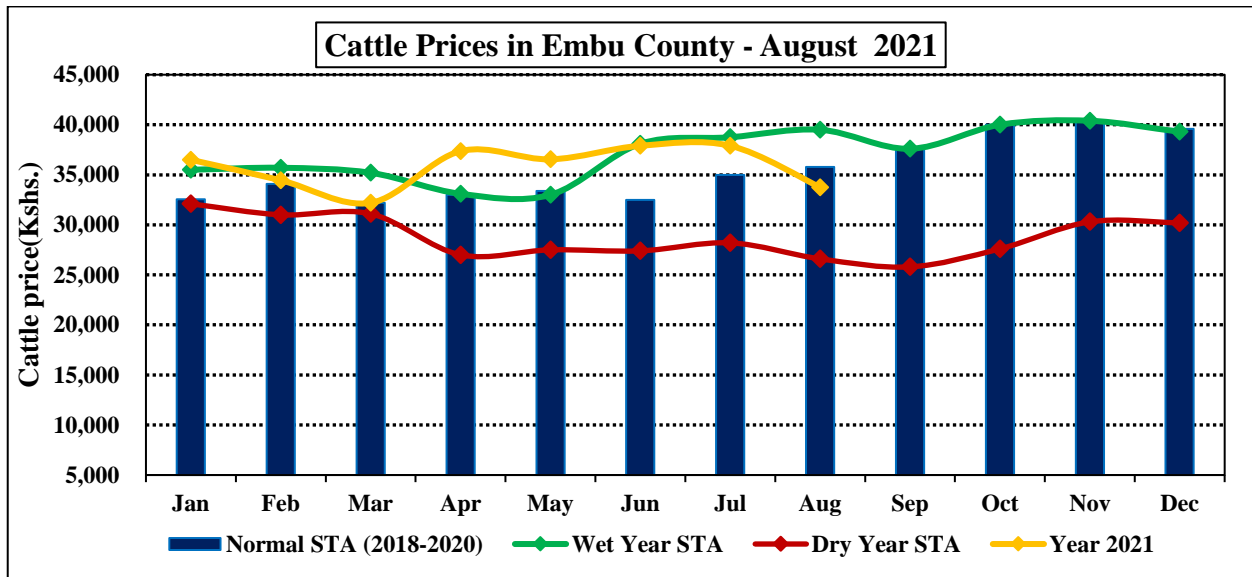


Figure 10: Average Market prices for cattle in Mbeere sub counties

- The average price of a medium size mature bull reduced by 12 percent from Ksh 37,900 in July to Ksh 33,750 in August.
- The drop in prices can be attributed to deteriorating body conditions and farmers destocking due to depleting pastures.
- The average price recorded price was lower by 5.8 percent than the short-term average price of Ksh 35,800.

4.1.2 Goats Prices

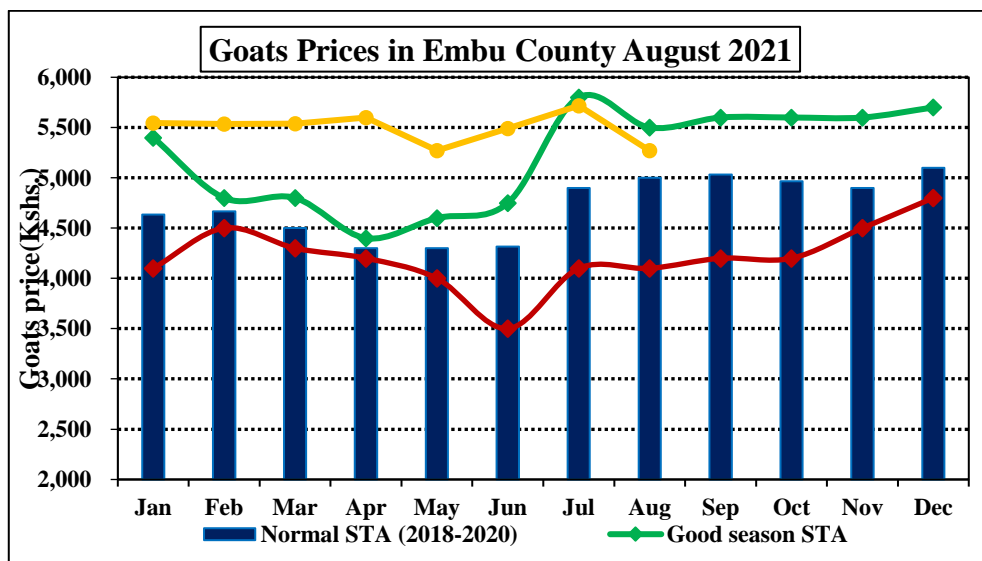


Figure 11: Average market prices for goats in Mbeere sub counties

- The average goat price decreased by 8.5 percent from Ksh 5,720 in the month of July to Ksh 5,270 in the month of August.

- The decrease in price can be attributed to farmers destocking due to deteriorating body conditions because of depleting browse.
- The difference in the prices is due to variation in volumes traded in the respective markets
- The recorded price was 5.4 percent higher than the short-term average of Ksh 5000.

4.2 FOOD PRICES

4.2.1 Maize Prices

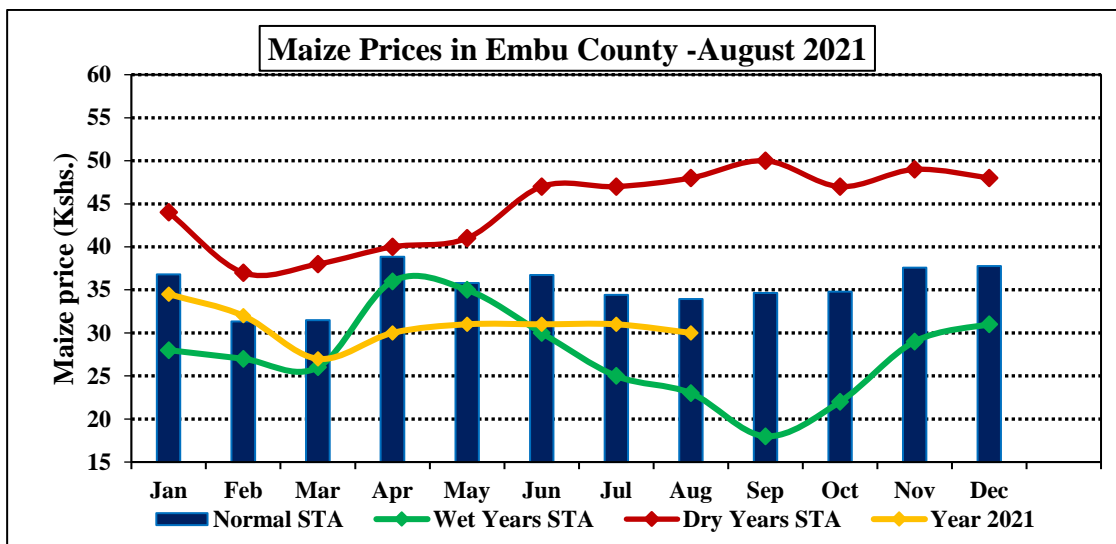


Figure 12: Average market prices for maize in Mbeere sub counties

- The average market price for maize reduced by 3 percent from Ksh 31 per kilogram in July to Ksh 30 in August.
- Even though the sub counties experienced nearly zero harvest the price drop could be attributed the markets being supplied by neighbouring counties that experienced better harvest.
- The average maize price was 13 percent lower than the short-term average of Ksh 34.

Posho (Local Maize Meal)

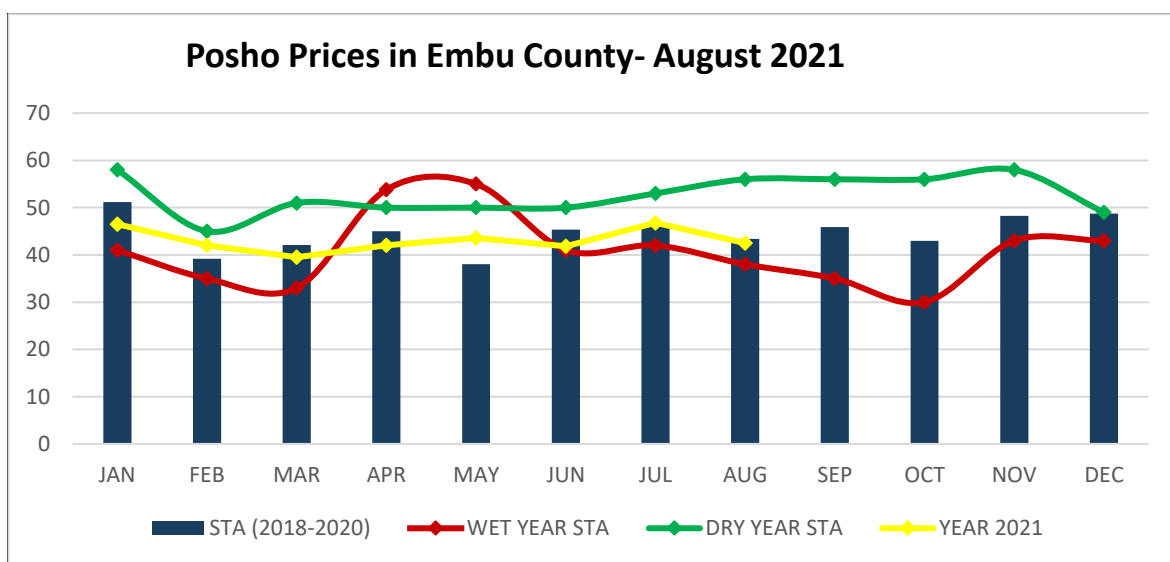


Figure 13: Average market prices for Posho in Mbeere sub counties

- The average price of *posho* decreased by 7 percent from Ksh. 46 in July to Ksh. 43 in the month of August.
- The increase in price can be attributed to the poor maize harvest thus reliance on the market has remained the same.

- The current average price is the same as the short-term average price of Ksh. 43 per kilogram.

4.2.2 Beans Prices

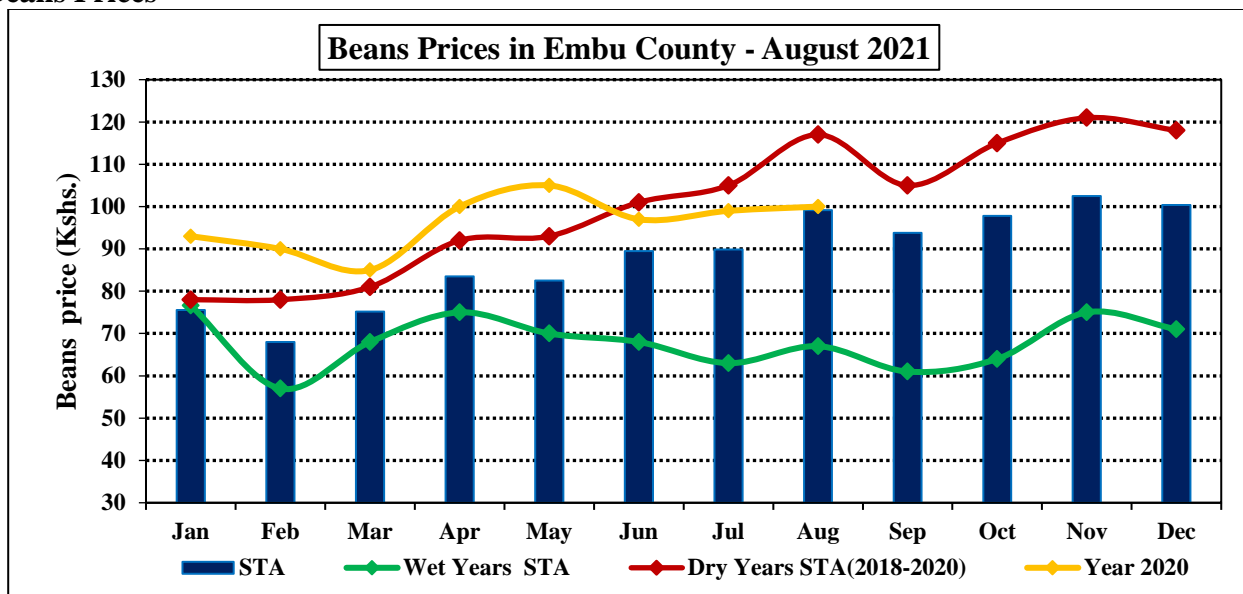


Figure 14: Average market prices for beans in Mbeere sub counties

- The average price of beans increased from Ksh 99 in the month of July to Ksh 100 in the month August.
- The increase of beans price in the market can be attributed to the dismal harvest of beans thus a short in supply in the market. Prices are expected to rise as demand increases over time.
- The recorded price of beans was 1 percent higher than the short-term average price of Ksh 99 per kilogram.

4.2.3 Green Grams Prices

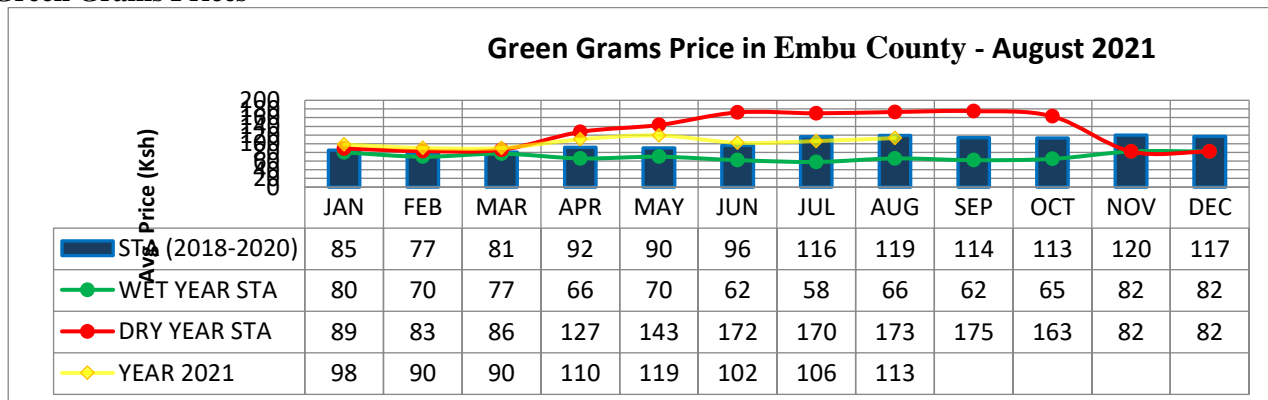


Figure 15: Average market prices for green grams in Mbeere sub counties

- The average price of green grams increased by 6.2 percent from Ksh 106 per Kg in the month of July to Ksh 113 in the month of August.
- The increase in price can be attributed to the poor harvest experienced by household thus increasing the demand on the markets.
- The average price recorded was 5 percent lower than the short-term average of Ksh119.

4.3 Terms of Trade (ToT)

Terms of trade determine the purchasing power of the households by providing an estimate of the number of kilograms of maize bought from sale of one goat.

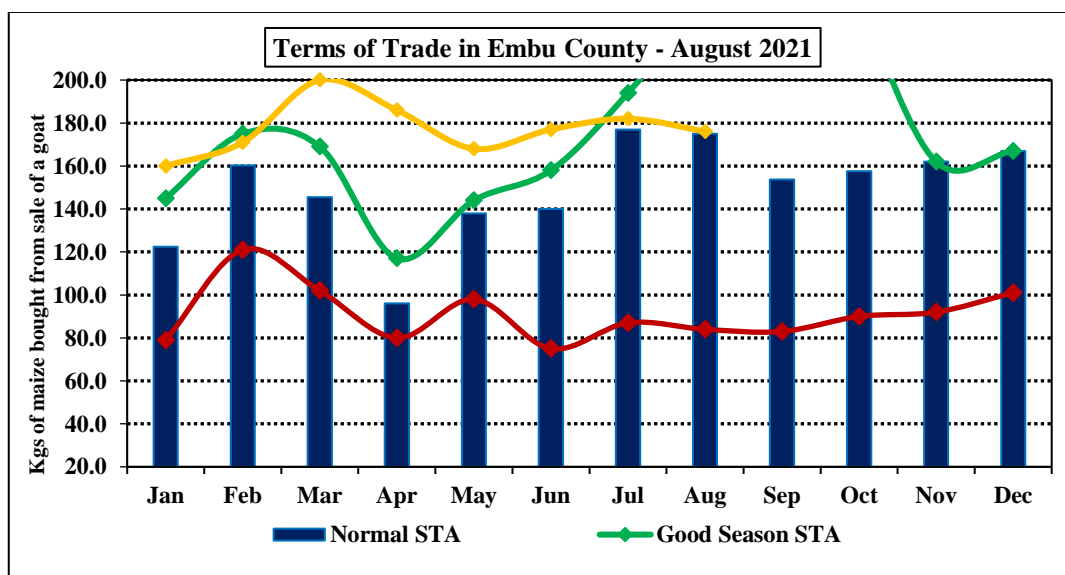


Figure 16: Terms of trade in Mbeere sub counties

- The Terms of trade decreased by 3 percent from 182 in July to 176 kilograms of maize bought from sale of one live goat in August.
- The decrease in the terms of trade during the month under review can be attributed to a drop in goat prices and stable in maize prices.
- The current terms of trade recorded are slightly higher than the short-term average of 175.

5.0 FOOD CONSUMPTION AND NUTRITION STATUS

5.1 Milk Consumption

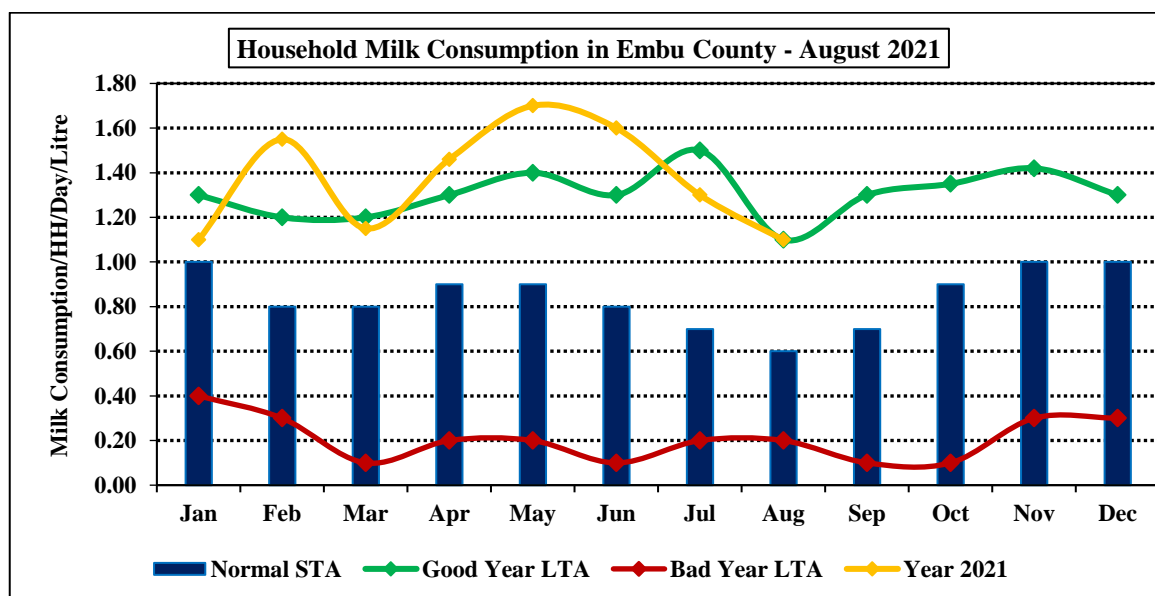


Figure 17: Household milk consumption in Mbeere North and South sub counties

- During the month under review, average household daily milk consumption declined by 18 percent from 1.3 litres recorded in July to 1.1 litres recorded in August.
- The decline in milk consumption can be attributed to decreased production.
- The current household milk consumption is 83 percent higher than the short-term average of 0.6 litres per household per day.

5.2 Nutritional Status of Children

The Mid Upper Arm Circumference (MUAC) is a pointer indicator for malnutrition among children under five years.

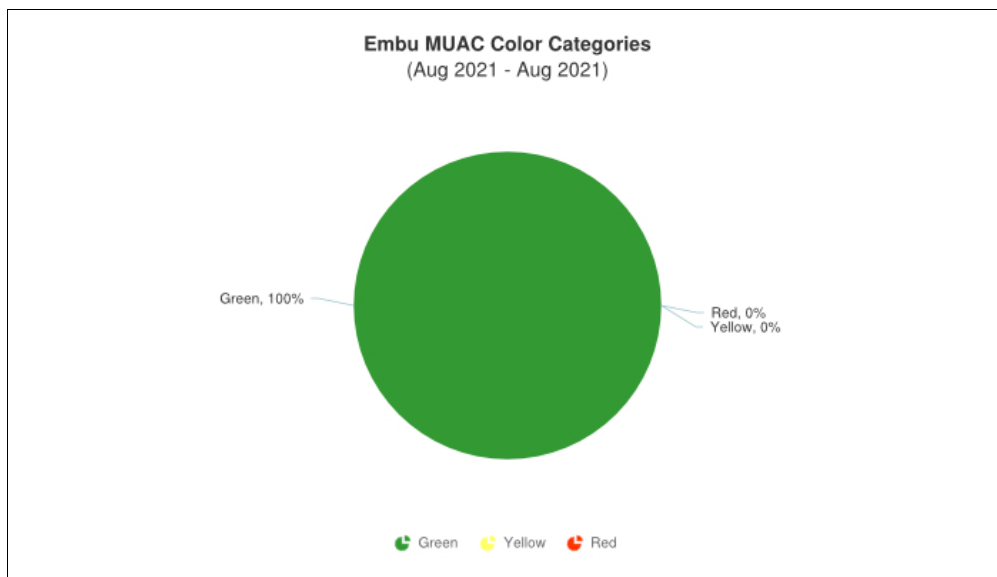


Figure 18: Nutritional status of sampled children in Mbeere sub counties(n=317)

- During the month under review 100 percent of sampled children recorded normal MUAC measurements (measurements at the green band)
- This may be attributed to reduced frequency and portion of meals due to diminishing food stocks.

5.3 Food Consumption Score

The Food Consumption Score (FCS) gives the dietary diversity and the relative nutritional importance of different food groups consumed by households over a period of 7 days.

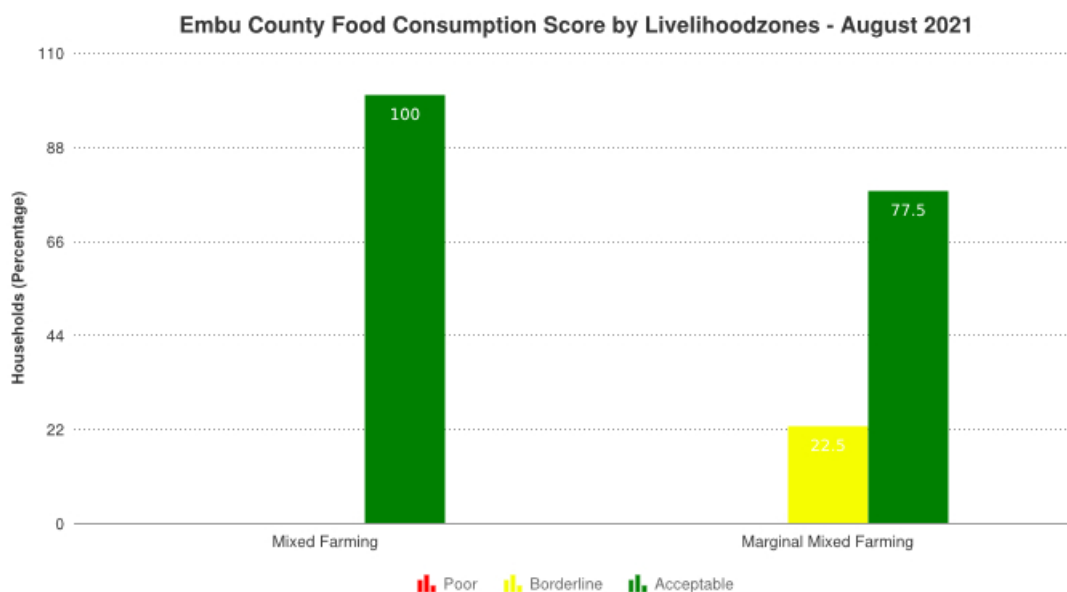


Figure 19: Household food consumption (120 households)

- Household food consumption recorded during the month under review sampled households recorded 91 % acceptable food consumption, 9% borderline food consumption category.
- The household food consumption dropped from July, acceptable from 92.3 percent to 91 percent and borderline from 7.7 percent to 9 percent.
- The decline in the food consumption can be attributed to the diminishing food stocks and purchasing power in households in both livelihood zones.
- Households in the mixed farming livelihood zone had a better food consumption score at 100 % acceptable compared to marginal mixed farming livelihood zone with 77.5% of the households in acceptable food consumption, 22.5 % in borderline food consumption.
- This variation between livelihood zones can be attributed to the variation in current household stocks, where some areas in the mixed marginal zones experienced totally depleted their food stocks.

5.4 Coping Strategy Index

The Coping Strategy Index is a derivative of the strategies that households adopt when they lack food or money to buy food.

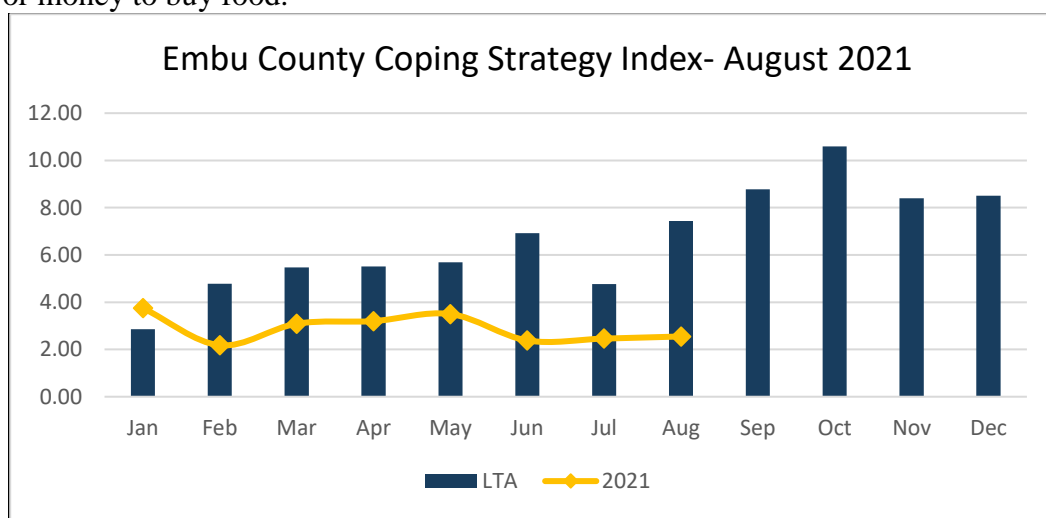


Figure 20: Coping Strategy Index for households in Mbeere sub counties

- The mean coping strategy index slightly increased by 4 percent from 2.46 in the month of June to 2.55 in the month of August.
- The decline can be attributed to reduced purchasing power and lack of casual labour since the economic situation isn't allowing farmers to offer labour.
- Households in the mixed farming livelihood zone reported low coping strategy index of 2.1 while those in the marginal mixed farming livelihood zone recorded coping index of 3.3.

5.5 Implication of the above Indicators to Food Security

- The deterioration in forage condition in both sub counties has had negative impact on the livestock body conditions and hence milk production.
- The availability of farm labour improved the household purchasing power and hence reduced severe household coping.
- The decrease in maize, beans and green grams prices is due to the ongoing harvest, households have food stocks thus less reliance on the market.

- Increase in goat prices and stability of maize prices led to increase in terms of trade and hence the increased purchasing power of the households that rely on sale of animal in order to get cereals.

6.0 CURRENT INTERVENTION MEASURES

6.1 Food Interventions

No food interventions were reported in the month under review across both sub counties.

6.2. Non-Food Interventions

Intervention	Implementer	Status of implementation	Beneficiaries
Community MUAC monitoring and referral	NDMA	ongoing	Targeted households in both sub counties
<ul style="list-style-type: none"> Routine Human Disease Surveillance Routine health and nutrition services for children, pregnant and lactating mothers 	Embu County government		All health facilities within Mbeere
Routine agricultural extension	Embu County government	Ongoing	Farmers in Mbeere North and South sub counties
Routine livestock production extension and support to farmers	Embu County government	Ongoing	Farmers in Mbeere North and South sub counties
Survey and design of KCEP CRAL supported investment projects	NDMA	ongoing	Targeted KCEP CRAL project wards-Kyeni South, Kagaari South, Kiambere, Muminji, Makima and Evurore

7.0 Food Security Prognosis (Three months)

- Food prices will increase in the market, since household stocks are depleting due to the following reasons, poor harvesting and farmers reserving some of the food stocks as seedlings for harvesting.
- Increased staple food prices are likely to affect household food availability, especially with reduced incomes.
- deteriorating pasture and browse and increasing water distances will lead to declining livestock body conditions this will result in declining livestock prices and reduction of milk at the household level.
- Some areas like Kiambere will need food aid for human and also pellets for animals if it does not rain soon.
- Deteriorating goat body condition will lead to a low term of trade and influence some of the financial power of households.
- Households are likely to remain in Stressed (IPC Phase 2) in the Marginal Mixed Farming livelihood zone while Minimal (IPC Phase 1) in the Mixed Farming livelihood zone.

8.0 SECTOR RECOMMENDATIONS

SECTOR	RECOMMENDED ACTIVITIES	TARGET AREA	RESPONSIBLE
AGRICULTURE	<ul style="list-style-type: none"> • Promotion of adoption of drought resilient crops • Training on post-harvest management • Market linkage for green grams value chain • Promotion of food conservation and storage at household level 	Farmer groups in both sub counties	County Department of Agriculture
LIVESTOCK AND VETERINARY	<ul style="list-style-type: none"> • Breed improvement • Mass vaccination along the stock routes • Deworming and multi-vitamin supplementation • Treatment of livestock diseases • Capacity building on disease control measures 	Evurore, Muminji and Kiambere wards	County Department of Livestock Production and Veterinary services
HEALTH AND NUTRITION	<ul style="list-style-type: none"> • Conduct SMART survey • Conduct Health Outreaches in the marginal mixed farming zones in order to preposition for surge kit activation 	Embu County	County Department of Health