

National Drought Management Authority
EMBU (MBEERE) COUNTY
DROUGHT EARLY WARNING BULLETIN FOR MAY 2020



A Vision 2030 Flagship Project



MAY EARLY WARNING PHASE

Drought Status: NORMAL

Shughuli za kawaida

Early Warning (EW) Phase Classification

Livelihood Zone	Phase	Trend
Mixed Farming (MF)	Normal	stable
Marginal Mixed Farming (MMF)	Normal	stable
County (Mbeere Only)	Normal	stable
Biophysical Indicators	Value	Normal
Rainfall (% of Normal)	83	80-120
VCI-3 Month	84	>50
Forage condition	Good	Good
Production Indicators	Value	Normal
Crop Condition (maize)	fair	Good
Livestock Body Condition	Good	Good
Livestock Migration Pattern	None	None
Livestock deaths	None	None
Access Indicators	Value	Normal
Terms of Trade	138	84-124
Households distance to water (km)	2.3	<4.2
Livestock return distance to water (km)	2.3	<5.2

Drought Situation & EW Phase Classification

Biophysical Indicators

Rainfall: The long season rains ceased on the second dekad of May. The average amount recorded for the month under review reduced and the temporal and spatial distribution was poor and uneven across both sub counties.

Vegetation Condition: The vegetation condition deteriorated slightly during the month under review though remained above normal .

Water sources: the sources are normal and water expected to last for 2-3 months in marginal farming zone and 3-6 months in mixed farming zone.

Socio Economic Indicators (Impact Indicators)

- **Production indicators:** early planted maize crop was ready for harvesting while late planted maize was at grain filling/tassling stage. Harvesting of beans, green grams and cowpeas was ongoing across both sub counties. Livestock body condition remain good for all species across both sub counties occasioned by availability of forage.
- **Access indicators:** average return distance to water sources for both households and livestock marginally increased due to the cessation of the long rains. The prices of cereals slightly decreased in May occasioned the replenishment of household stocks from harvest of pulses and early harvest of maize. The Terms of Trade increased due to decrease in maize price and stability in animal prices.

County Seasonality Calendar

Short rains harvests Short dry spell Reduced milk yields Increased HH Food Stocks Land preparation			Planting/Weeding Long rains High Calving Rate Increased milk production			Long rains harvests A long dry spell Land preparation Increased HH Food Stocks Kidding (Sept)			Short rains Planting/weeding Increased milk production		
Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec

1.0 CLIMATIC CONDITIONS

1.1 Rainfall Performance

- Cessation of the long rains season in Mbeere region was recorded in the second dekad of May.
- Below normal rains were received in both sub counties in the month of May.

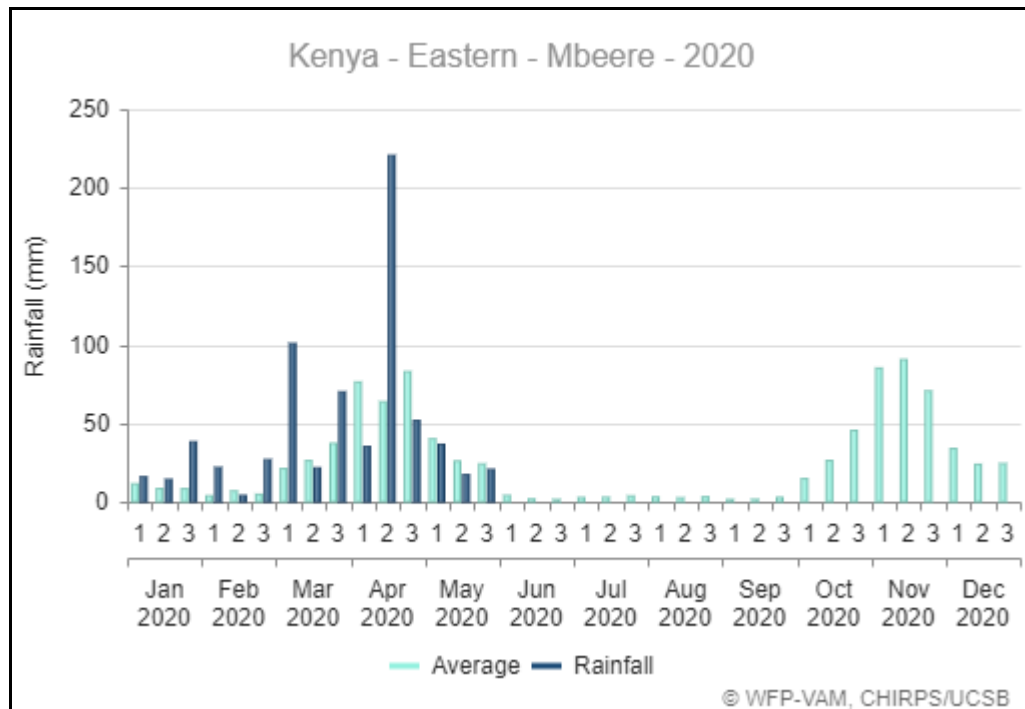


Figure 1: Rainfall estimates in Mbeere North and South Sub Counties

- The dekadal distribution of the rains was poor with 36.4 mm of rainfall recorded in the first dekad, 17.0 mm in the second dekad and 20.4 mm in the third dekad.
- Both sub counties recorded an average of three rainy days during the month under review.

1.2 Amount and Distribution of Rainfall

- The average amount of rain recorded reduced from 102.2 mm in April to 24.6 mm in the month under review.
- According to sentinel rain gauge data, the Mbeere South sub county received cumulative rainfall amount of 11.0 mm while Mbeere North sub county received cumulative rainfall amount of 8.0 mm in the month under review.
- The temporal and spatial distribution of the rains experienced during the month under review was poor and uneven in both sub counties.
- The amount received in the month of may was 17% lower compared to the long term mean rainfall in Mbeere for the month under review.

2.0 IMPACTS ON VEGETATION AND WATER

2.1 VEGETATION CONDITION

2.1.1 Vegetation Condition Index (VCI)

- The vegetation greenness was above normal in the month of May. The condition of vegetation is attributable to the ongoing long rains season.
- The combined 3-month Vegetation Condition Index (VCI) reduced by 13% in May compared to the previous month to 84. This is attributable to the reduced amount of rains recorded coupled with poor temporal and spatial distribution of the ongoing rains.
- Mbeere South Sub County recorded higher 3-month vegetation condition index of 85.5 in May while Mbeere North sub-county recorded a VCI of 82.6.

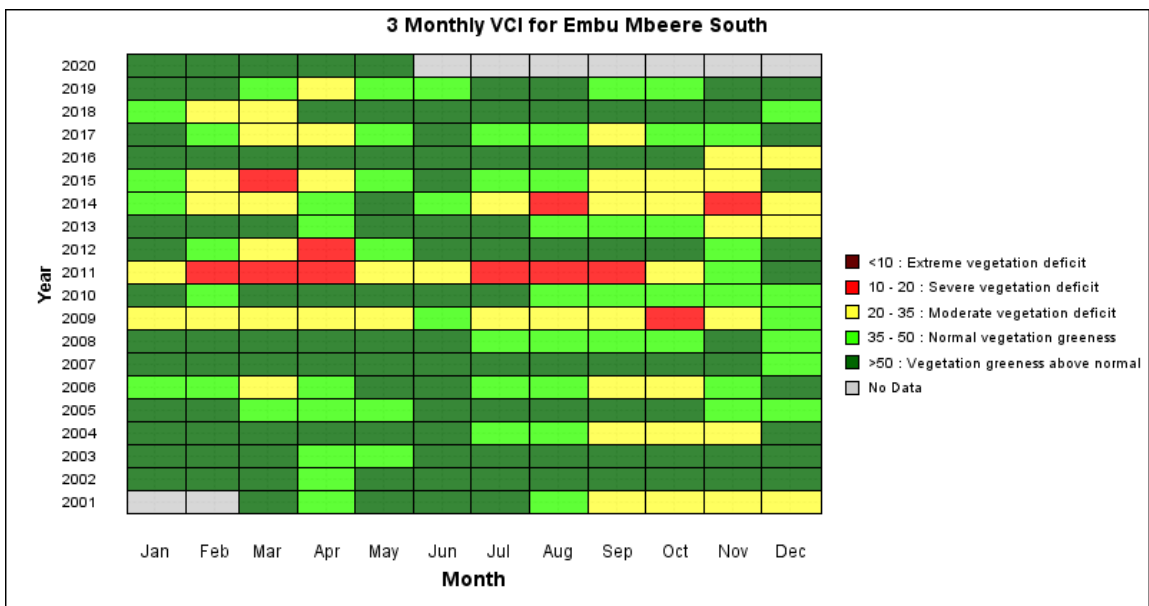


Figure 2a: Three-monthly VCI for Mbeere South sub- county [Source: MODIS Data]

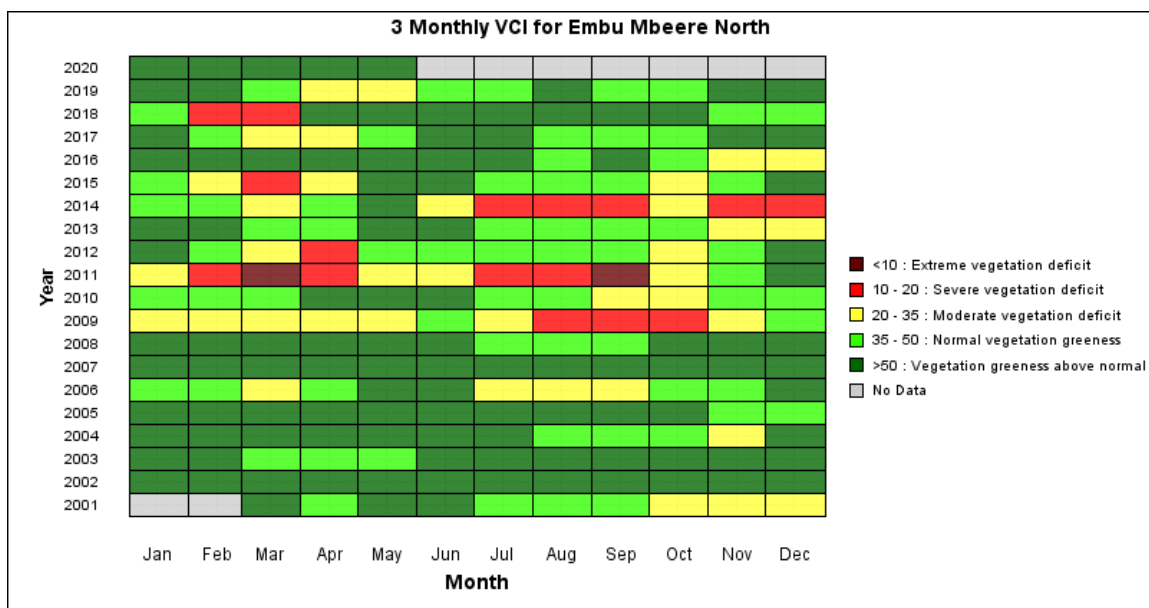


Figure 2b: Three-monthly VCI for Mbeere North sub county [Source: MODIS Data]

2.1.2 Pasture Condition

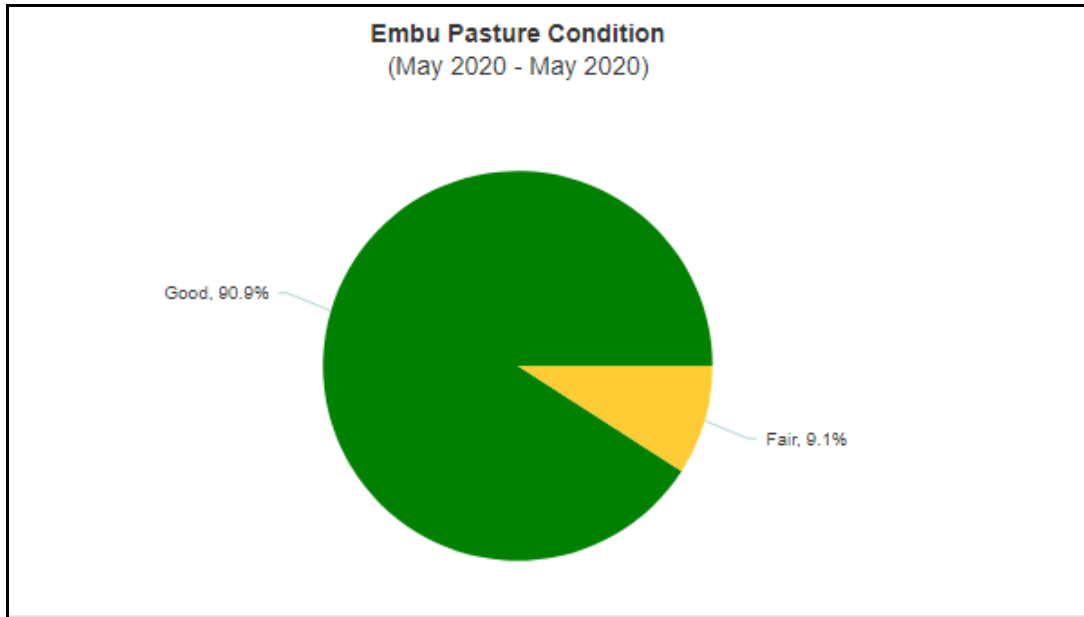


Figure 3: Pasture condition in Mbeere South and North sub counties

- The pasture condition remains good in the mixed farming livelihood zone while some pockets in the marginal mixed farming zone recorded fair pasture conditions.
- The condition of pasture remains good due to the positive effect of the long rains in both livelihood zones.
- The available pasture is expected to last for 2-4 months in marginal mixed farming zone and 3-6 months in the mixed farming livelihood zone.
- The crop residues are expected to supplement on animal feed in two months time when the pasture may be depleted in some areas.

2.1.3 Browse Condition

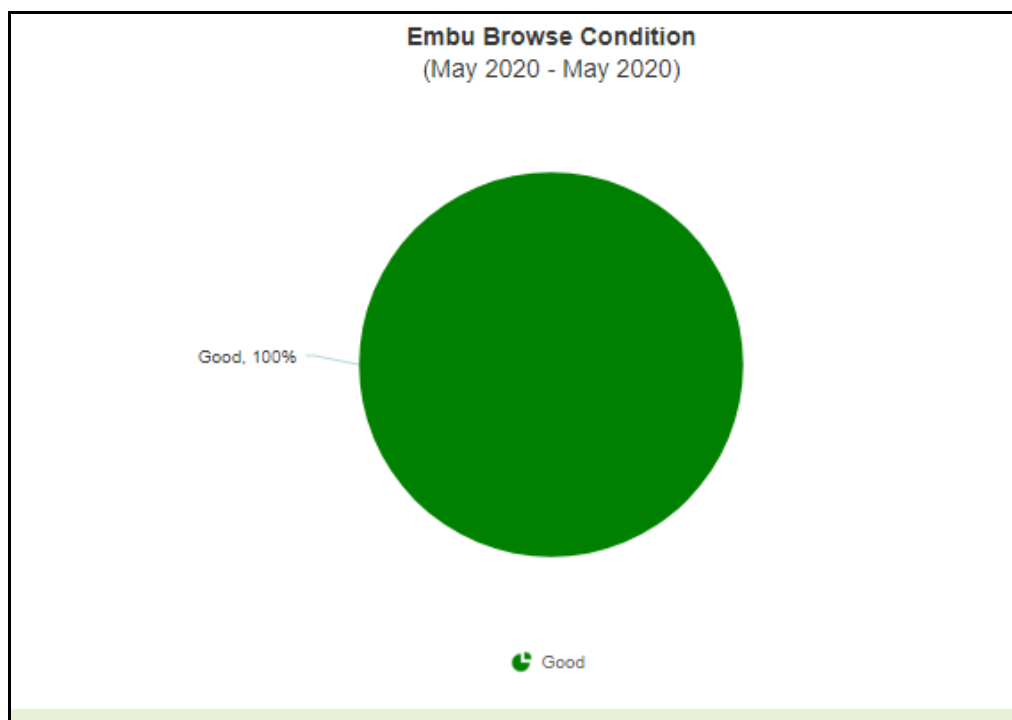


Figure 4: Browse condition in Mbeere North and South sub counties

- The browse condition remains good across both livelihood zones
- The good condition is attributed to continuous regeneration occasioned by the season rains
- The browse condition is above normal at this time of the year occasioned by the long rains.
- The available browse is expected to last for 4 to 6 months in both livelihood zone.

2.2 WATER RESOURCE

2.2.1 Water Sources

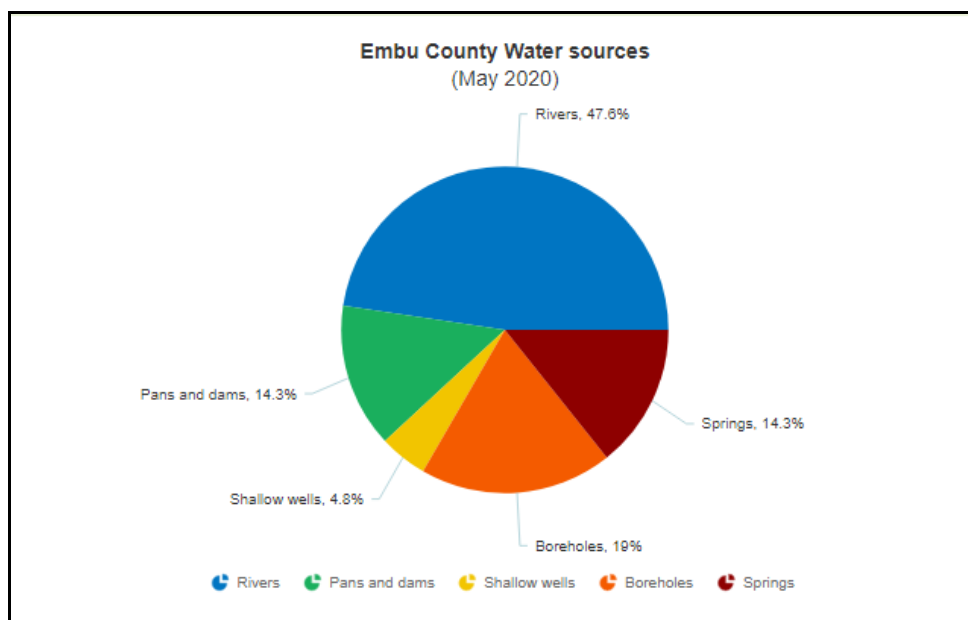


Figure 5: Water sources for Mbeere North and South sub counties

- The three main water sources in the month under review for both livestock and domestic use across the two livelihood zones were water pans and springs, rivers and boreholes.
- The proportion of household households using rivers increased by 6 percent compared to the previous month as those who previously used roof catchment water exhausted their storage.
- The quality of the water in surface and ground sources was good as the level of silt reduced occasioned by minimal rains.

2.2.2 Household Water Access and Utilization

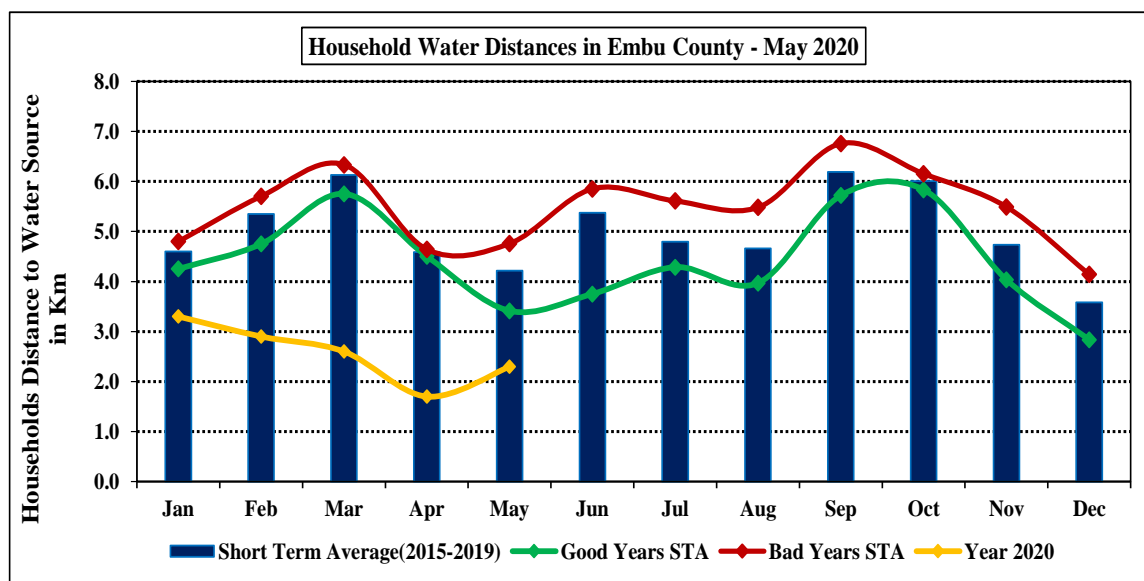


Figure 6: Household average distances to water sources

- The average household return distance to water sources increased by 35% compared to the previous month to 2.3 km in the month under review.
- The decrease is attributable to reduced rains recorded during the month of May.
- Households in the marginal mixed farming zone recorded slightly higher average return distance of 1.6 km to water sources compared to those in the mixed farming zone that trekked for an average return distance of 1.1 km to fetch water.
- The average return distance to water sources in April was 63% lower than the five year average distance of 4.6 km at this time of the year.

2.2.3 Livestock access to water from grazing areas

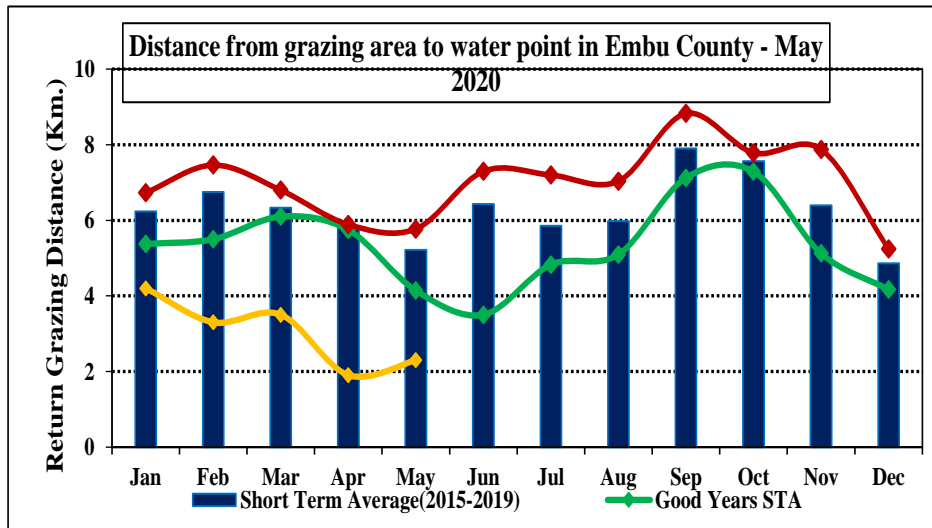


Figure 7: Livestock average return distances to water sources

- The average return distance to water sources from grazing areas increased from 1.9 km recorded in the month of April to 2.3 km month under review.
- The increase in distance is attributable to the minimal rains experienced across both sub counties hence overreliance on rivers and livestock water pans.
- Livestock in the marginal mixed farming zone recorded higher average return distance of 2.4 km compared an average return distance of 2.0 km recorded in the mixed farming zone.
- The current average return distance was 56% lower than the five-year average distance from grazing areas to water points.

3.0 PRODUCTION INDICATORS

3.1 LIVESTOCK PRODUCTION

3.1.1 Livestock Body Condition

- The body condition for both small and large stock is currently good in both livelihood zones
- The good body condition of animals is attributable to sustained good forage condition occasioned by the long rains.
- The livestock body condition is above normal at this time of the year and is expected to remain good for the next 2-3 months.

3.1.2 Livestock Diseases

- No livestock diseases were observed in both livelihood zones during the month of May
- The county department of veterinary services continues with routine disease surveillance.

3.2 Rain-Fed Crop Production

3.2.1 Stage and Condition of food Crops

- Late planted maize crop was at the tassling/grain filling stage of development while early planted maize was ready for harvesting.
- Harvesting of green grams, beans and cowpeas was ongoing in both sub counties.
- The condition of crops is fair to poor due to the effects of water logging the extended dry conditions after germination thus necessitating replanting.

4.0 MARKET PERFORMANCE

4.1 LIVESTOCK MARKETING

4.1.1 Cattle Prices

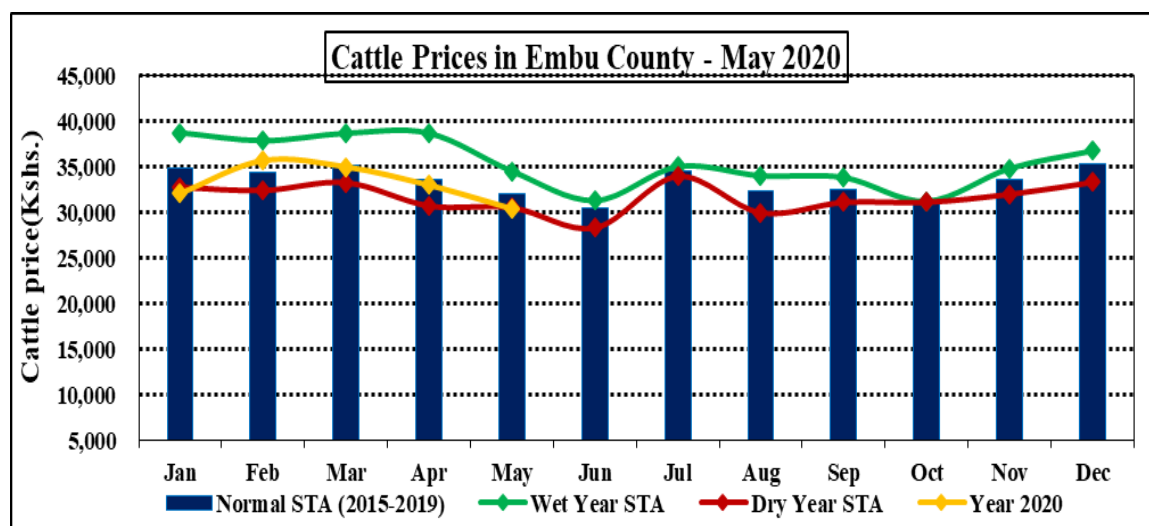


Figure 8: Average Market prices for cattle in Mbeere sub counties

- The average price of a mature medium size bull reduced further from Ksh 33,000 recorded in April to Ksh 30,400 in the month under review.
- The decrease in price is attributed to reduced livestock market operations occasioned by the guidelines related to the corona pandemic thereby reducing the supply of animals in markets across both livelihood zones.
- Makutano livestock market in the mixed farming zone recorded the highest average price for cattle of Ksh. 32,000 while Kiritiri and Ishiara markets in marginal mixed farming zone recorded Ksh 31,700 and Ksh 28,700 respectively.
- The average price recorded during the month under review is 5 percent lower than the 5-year average price.

4.1.2 Goats Prices

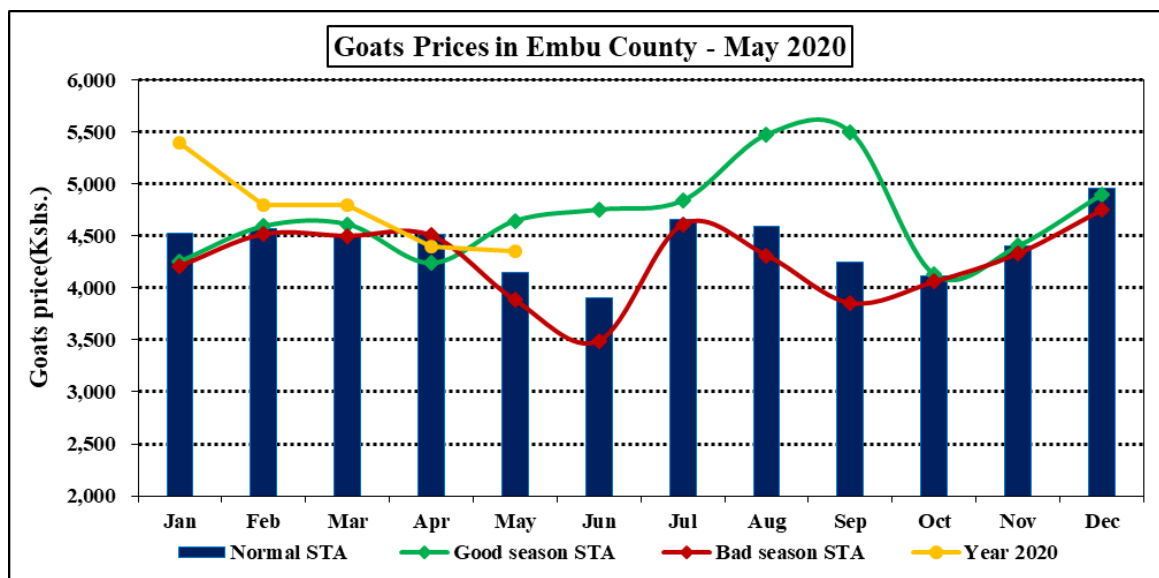


Figure 9: Average market prices for goats in Mbeere sub counties

- The average market price for a medium sized two-year goat remained stable compared to the price recorded in in April at Ksh 4,300.
- The stability in goat prices is attributed to reduced livestock market operations occasioned by the guidelines related to the corona pandemic thereby reducing the supply of animals in markets across both livelihood zones.
- Ishiara livestock market in mixed farming zone recorded average price of Ksh. 4,500, while Kiritiri and Makutano livestock markets in marginal mixed farming zone and mixed framing zone respectively recorded Ksh. 4,400 and Ksh. 4,000.
- The current price is slightly higher than the normal three-year average price in the county at this particular time of the year.

4.2 FOOD PRICES

4.2.1 Maize Prices

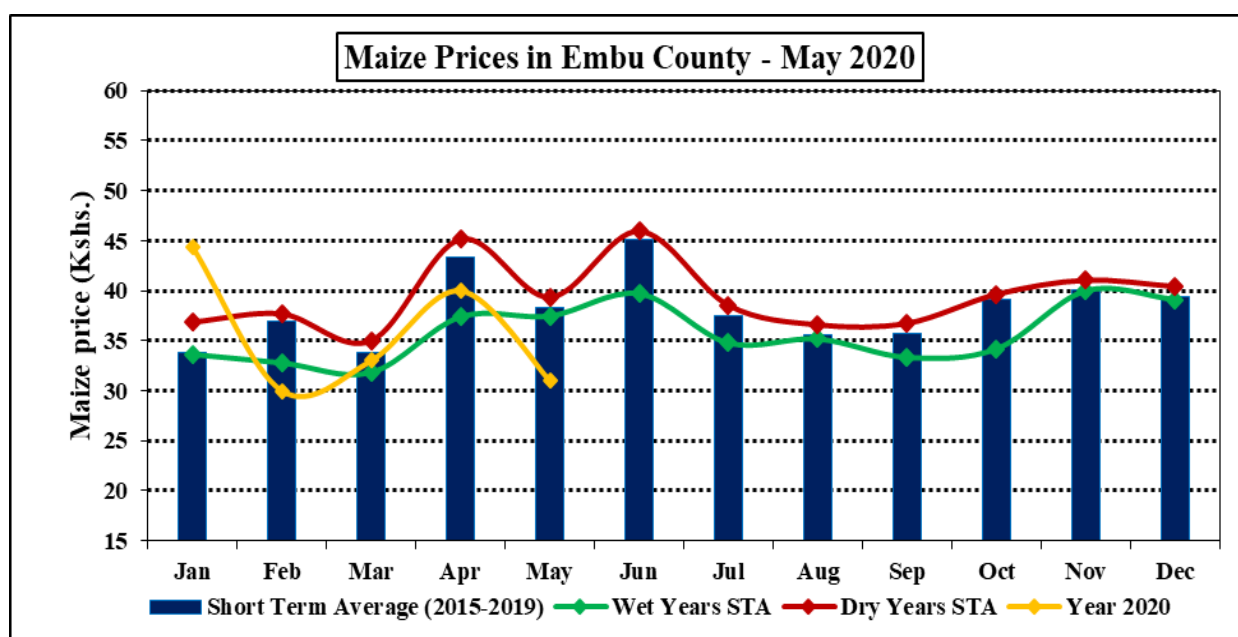


Figure 10: Average market prices for maize in Mbeere sub counties

- The average market price for maize decreased by 24% from Ksh. 41 recorded in April to Ksh 31 in the month under review.
- The decrease is attributable to early harvest of maize, green grams, cowpease and pigeon peas thereby replenishing the household stocks.
- One kilogram of maize retailed at Ksh. 34 in Ishiara market while in Kiritiri and Makutano cereal markets the average price stood at Ksh. 32 and Ksh.27 respectively.
- The recorded average maize price is 18 percent lower than the short term average at Ksh 38 per kilogram.

4.2.2 Posho (Local Maize Meal)

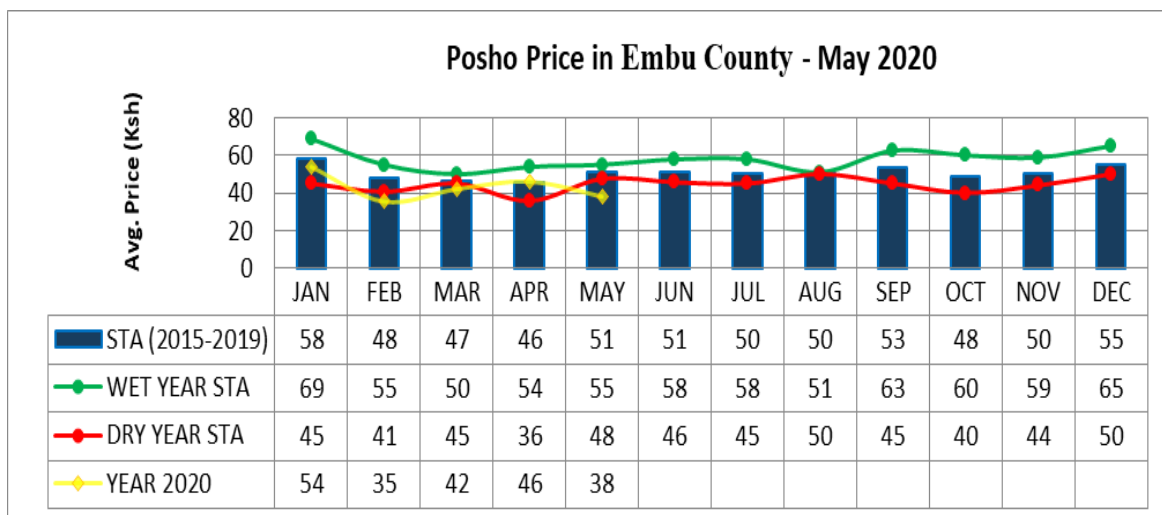


Figure 11: Average market prices for Posho in Mbeere sub counties

- The average price of ‘posho’ across both livelihood zones decreased by 17 % compared to the previous month to Ksh 38 in Month of May.
- The decrease in ‘posho’ price is attributable to early harvest of maize maize and other food crops across both sub counties hence low demand.
- The recorded average ‘posho’ price is 25 % lower than the average short term average.

4.2.3 Beans Prices

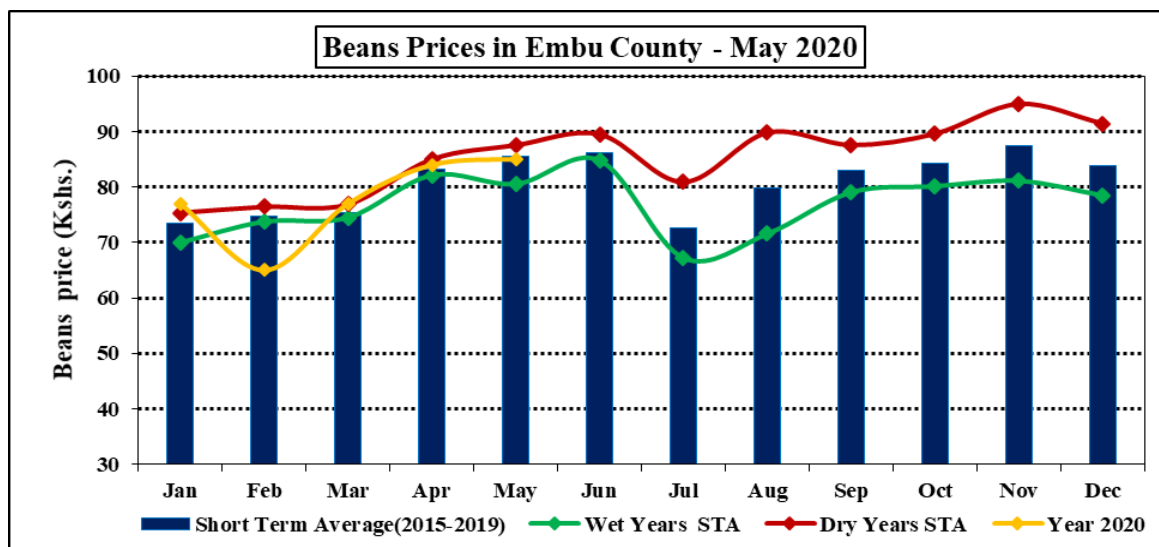


Figure 12: Average market prices for beans in Mbeere sub counties

- The average price of beans remained stable at Ksh. 85 in May compared to the previous month of April.
- The stability is attributable to low production of beans during the long rains season period and hence dependence on markets by households.
- One kilogram of beans retailed at Ksh 87 in Makutano cereals market while in Ishiara and Kiritiri cereals markets, the prices stood at Ksh. 84 and Ksh. 83 respectively.
- The recorded price is equivalent to the the short term average price and slightly lower than the average price recorded in the dry years in Mbeere sub counties.

4.2.4 Green Grams Prices

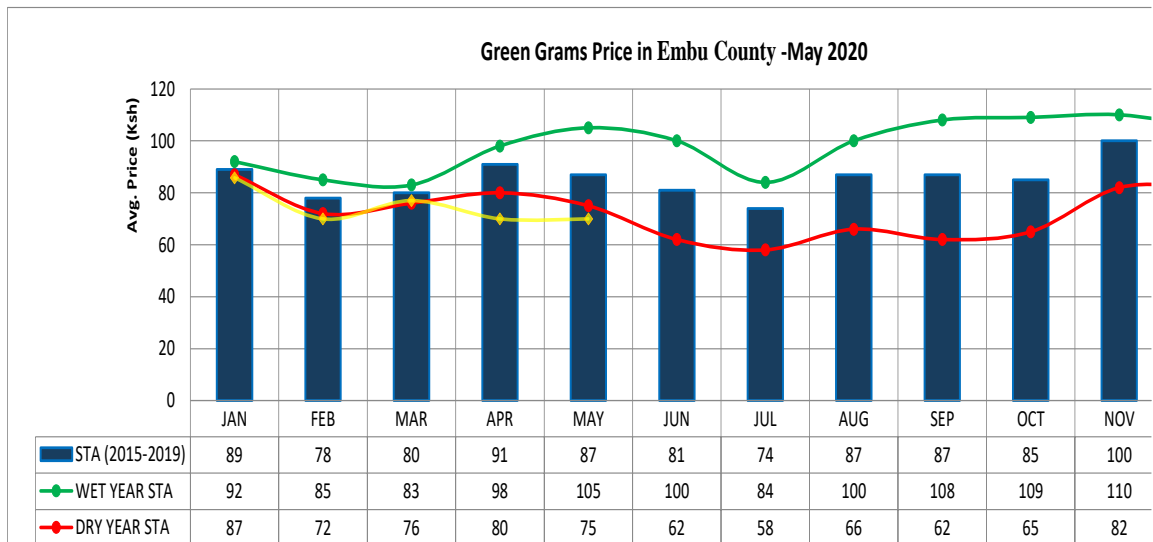


Figure 13: Average market prices for green grams in Mbeere sub counties

- The average price of green grams remained stable compared to the previous month at Ksh. 70.
- The stability in price is attributable to harvest of green grams hence replenished household stocks
- One kilogram of green grams retailed at Ksh 65 in Makutano cereals market while the prices stood, at Ksh. 70 and Ksh. 75 in Kiritiri and Ishiara cereals markets respectively.
- The current average price is 20% lower than the short-term average of Ksh 87 per kilogram.

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.

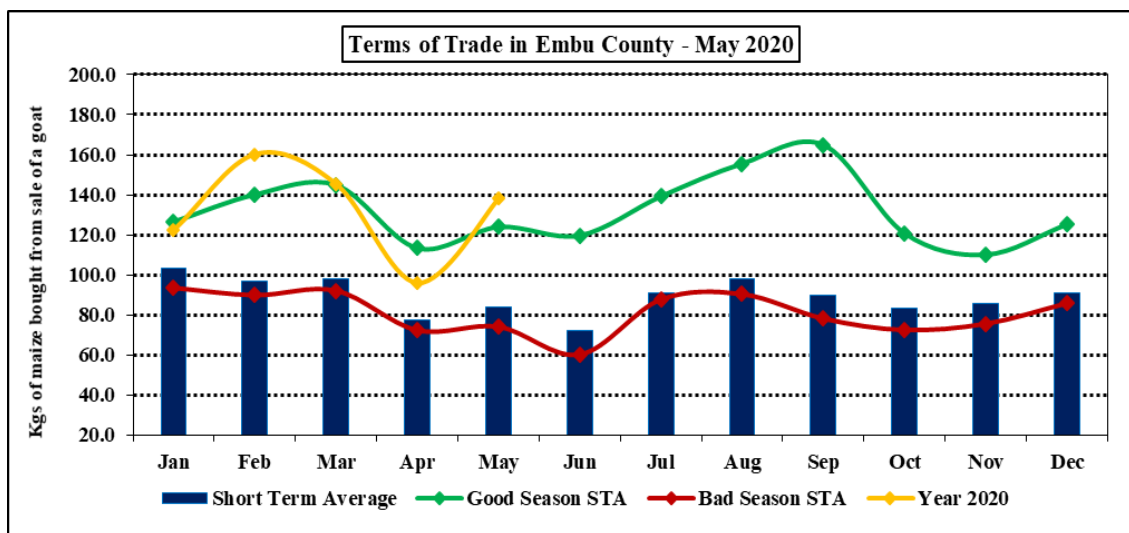


Figure 14: Terms of trade in Mbeere sub counties

- The Terms of Trade increased from 96 kilograms of maize bought from sale of one goat in April to 138 kilograms of maize bought from sale of one goat in the month of May.
- The increase is attributable to decrease in maize price and stability in goat prices.
- Mbeere South Sub County recorded higher terms of trade in the month of May at 142 kilograms for sale of one goat as compared to Mbeere North Sub County with 132 kilograms of maize for sale of one goat.
- The differentiation across the livelihood zones is attributable to differences in the market prices of livestock and cereals in major markets of Ishiara, Kiritiri and Makutano.
- The current ToT are 64% higher than the average normal terms of trade and 11 percent higher than the ToT recorded in good seasons in Mbeere sub counties.

5.0 Implication of the above Indicators to Food Security

- The expected long rains harvest will replenish the stocks and cushion households from food shortages and high food commodity prices.
- The sustained good forage conditions is expected to sustain good livestock body conditions and hence productivity.
- The reduced cereal prices and the stability in livestock prices led to improvement in terms of trade and hence increased household purchasing power.

6.0 CURRENT INTERVENTION MEASURES

6.1 Food Interventions

No food interventions reported in the month under review.

6.2. Non-Food Interventions

Intervention	Implementer	Beneficiaries
<ul style="list-style-type: none"> • Training farmer groups on post harvest handling • Training targeted farmers on locust identification and management 	County Department of Agriculture	Targeted farmer groups and individuals
<ul style="list-style-type: none"> • Routine Promotion of good animal husbandry practices • Routine livestock diseases surveillance 	County Department of Livestock Production and Veterinary Services	Livestock keepers in both sub counties
<ul style="list-style-type: none"> • Routine Human Disease Surveillance • Routine screening and management of malnutrition in all health facilities • Routine Vitamin A and Zinc Supplementation and deworming in all health facilities • Iron Folate Supplementation for pregnant women at all health facilities • Community MUAC monitoring for the acute and moderate malnutrition 	County Department of Health Services (CDOH) NDMA/CDOH	Mothers and children who visited health facilities in both sub counties Households in sampled sentinel areas

7.0 Food Security Prognosis (Three months)

- The ongoing crop harvesting is expected to replenish household stocks and therefore reduce household food shortages and engagement in extreme coping strategies.
- The average distance to water sources by households and livestock is likely to keep an upward trend as the rains reduce upon cessation of the season rains.
- The browse condition is likely to remain good for the next three months while that of pasture may deteriorate as the dry spell sets in.
- Food commodity prices are expected to reduce further due to the long rains season crop harvests across both sub counties.
- The terms of trade may remain stable during the next three months occasioned by expected reduced cereals prices and stability of livestock prices.

8.0 SECTOR RECOMMENDATIONS

Sector	Recommended Activities	Proposed Implementers	Expected Outcome
AGRICULTURE	Scale-up of training on post harvest handling Spot checks on aflatoxin in traded food commodities Rehabilitation of food storage facilities Provision of irrigation water in Kiambere and Muminji wards	County Department of Agriculture of National government Other stakeholders	Reduced post harvest losses Increased food reserve Increased irrigated farming
LIVESTOCK	Conservation of crop residues for animal feed Breed improvement for small stock De-worming of livestock and health management	County Department of Veterinary services Other stakeholders	Increase feed reserve Improved animal health
WATER AND SANITATION	Repair water pipeline systems in Mbeere North and South sub counties. Provision of household water treatment chemicals Repair of strategic boreholes Capacity building of water user committees	EMBE EMBEWASCO County Department of water	Increased water availability and improved quality Improved community management of rural water sources
HEALTH AND NUTRITION	Capacity building of community health workers and rural medical staff Sensitization of community on sanitation and hygiene including proper hand washing practice	Embu County government Other stakeholders NDMA	Increased capacity of community health workers and volunteers Reduced spread of diseases
INFRASTRUCTURE	Repair of feeder roads and school toilets affected by excessive rains	KERRA/Embu County Government Ministry of Education	Improved accessibility Improved sanitation at schools