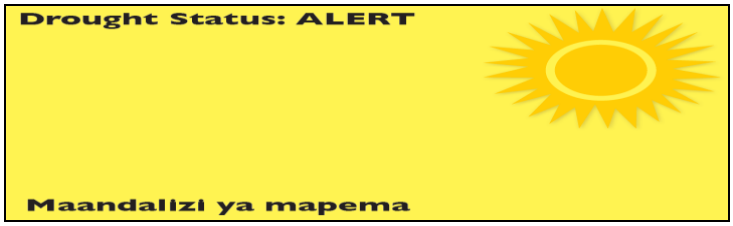
A Vision 2030 Flagship Project

National Drought Management Authority

MERU (MERU-NORTH) COUNTY

DROUGHT EARLY WARNING BULLETIN FOR APRIL 2022

APRIL 2022 EW PHASE



Early Warning Phase Classification

Livelihood Zone	Phase	Trend
Mixed Farming	Alert	Stable
Agro - Pastoral	Alert	Stable
Rain Fed Cropping	Normal	Worsening
County	Alert	Stable
Biophysical Indicators	**Value**	**Normal Range/ Value**
Rainfall (% of Normal)	41	80 – 120
VCI-3Month	41.24	35 – 50
Production indicators	**Value**	**Normal**
Maize Crop Condition	Fair-poor	Good
Livestock Body Condition for cattle	Fair-poor	Good
Milk Production per HH/ day	1.3	2.4litres
Livestock Migration Pattern	External migration	No migration
Access Indicators	**Value**	**Normal**
Terms of Trade (ToT)	89	137
Milk Consumption per HH/ day	1.1	1.3Litres
Return HHs distance to water sources	10.6	6.3Km
Water source return distance from grazing areas	14.2	10.3Km
Cost of water (20 litres)	Ksh 2.5-5.00	Ksh 2.5 - 5.00
Utilization indicators	**Value**	**Normal**
Nutrition Status, MUAC (% at risk of malnutrition)	G 95.2% Y= 4.8% R =0%	0
Copying strategy Index (CSI)	10	<15

Drought Situation & EW Phase Classification

Biophysical Indicators

Rainfall: Below average rainfall was received in the county with rains been erratic and unevenly distributed.

Vegetation condition: The County recorded normal vegetation greenness across the livelihood zones. The pasture and browse condition were fair across the livelihood zones expect parts of Igembe North which were poor.

Socio Economic Indicators (Impact Indicators)

Production Indicators: crops are at flowering stage in the rainfed zone and at germination stage in the agropastoral zone. The livestock body condition for small stock and cattle is poor to fair in the Agro pastoral, fair in the mixed and good in the rain fed zones. Milk production has slightly decreased and significantly below the LTA.

Access Indicators: The average return distances to water sources for livestock and households have remained stable compared to March and significantly above the LTA. Milk consumption per HH per day decreased compared to March and within the LTA. TOT remained unfavourable decreasing compared to March and significantly below the LTA.

Utilization Indicator: .11 percent of households were withing the poor consumption score ,53 percent at acceptable and 36 percent at borderline.95.2 percent of children were under the green band with the remaining 4.8 percent under yellow.

▪ Short rains harvests ▪ Increased HH Food Stocks ▪ Short dry spell ▪ Reduced milk yields ▪ Land preparation	▪ Planting/Weeding ▪ Long rains ▪ High Calving Rate ▪ Milk Yields Increase	▪ Long rains harvests ▪ Increased HH Food Stocks ▪ A long dry spell ▪ Land preparation ▪ Kidding (Sept)	▪ Short rains ▪ Planting/weeding

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec

1. CLIMATIC CONDITIONS

1.1 RAINFALL PERFORMANCE

- The onset of long rains was delayed with rainfall received in the third dekad of the April across the livelihood zones.
- The rains remained significantly below the long-term average and uneven in distribution. The lower parts of the Agro pastoral zone received little to no rainfall throughout the month.
- According to the WFP –VAM, the rains received in the month were significantly below their long-term decadal values.

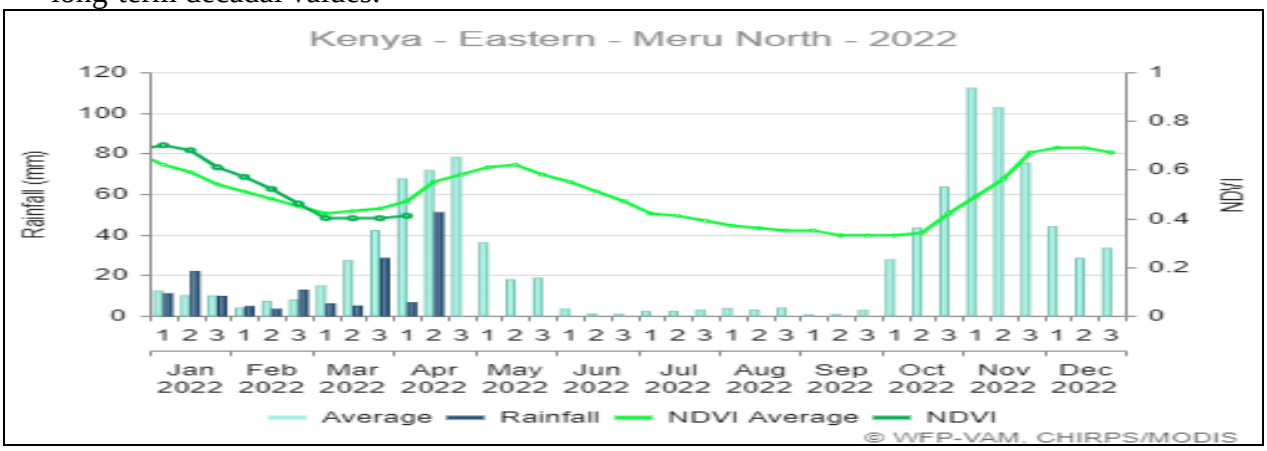


Figure 1: Rainfall estimates in Meru North

- From the figure 1 above the Rainfall for Estimate (RFE) amounts for the first dekad and second dekad were significantly below their long-term averages.
- The County received an average of 28.492 mm compared to the long-term average of 69.384 mm for the same period. The first dekad received 6.721 mm and second dekad received 50.713 mm of rainfall.
- Normalized Difference Vegetation Index (NDVI) for the first dekad was within the normal averages.

2. IMPACTS ON VEGETATION AND WATER

2.1 VEGETATION CONDITION

2.1.1 Vegetation Condition Index (VCI)

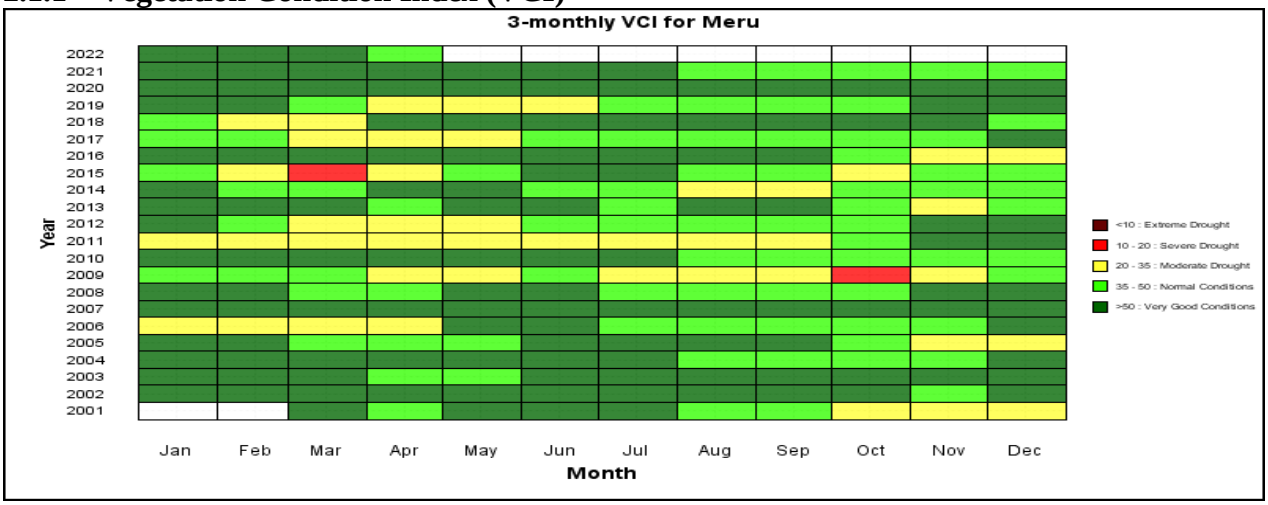


Figure 2: Three-monthly VCI for Meru County [Source: MODIS Data]

- From the figure {2} shown above, the County vegetation condition in the month under review is within the normal vegetation greenness as depicted by a vegetation condition index (VCI).
- The sub counties of Tigania west, Tigania East and Igembe central showed normal vegetation greenness. Igembe North showed moderate vegetation greenness.
- The combined 3-month Vegetation Condition Index (VCI) was at 41.24 in the month under review when compared to 51.5 in March.
- The 3-monthly vegetation condition index for Igembe Central was at 36.17, Igembe North at 24.45, Tigania East 38.48 and Tigania west was at 40.3

2.1.2 Pasture Condition

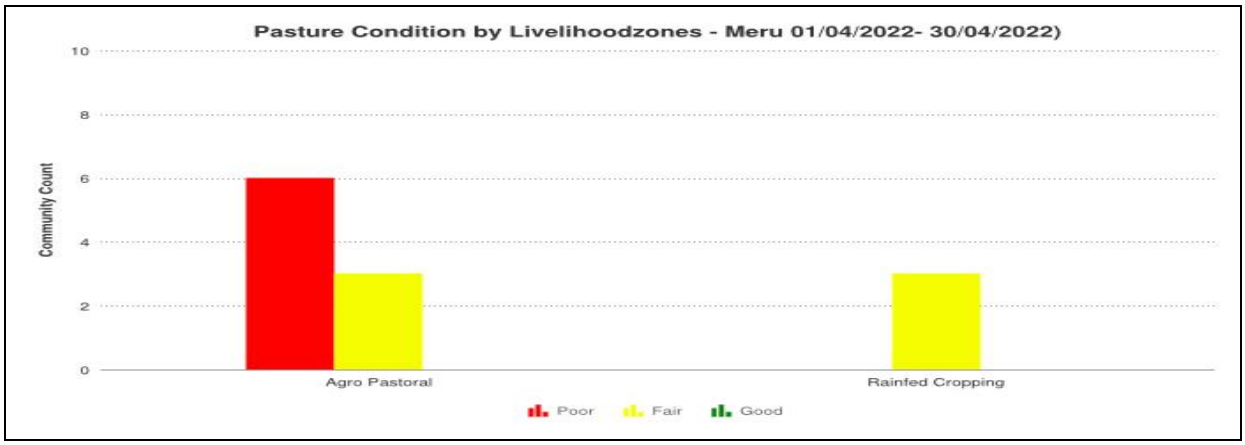


Figure 3: Pasture condition in Meru County

- The pasture condition was fair in the rainfed zone, poor to fair in the Agro pastoral zone and fair in the mixed livelihood zone. In the lower grazing areas of Njaruine and kamweline the pasture conditions are poor.
- The pasture condition is below normal for this time of the year across the livelihood zones except in parts of Mikinduri in the rainfed livelihood zone where the condition is fair.
- This is credited to the continued depletion of pasture over the months due to influx of from livestock neighbouring communities and below average rains received in the season leading little to no generation.
- The available pasture is estimated to last for less than a month in Igembe North and parts of Tigania west and upto a month in Igembe central and Tigania East.

2.1.3 Browse

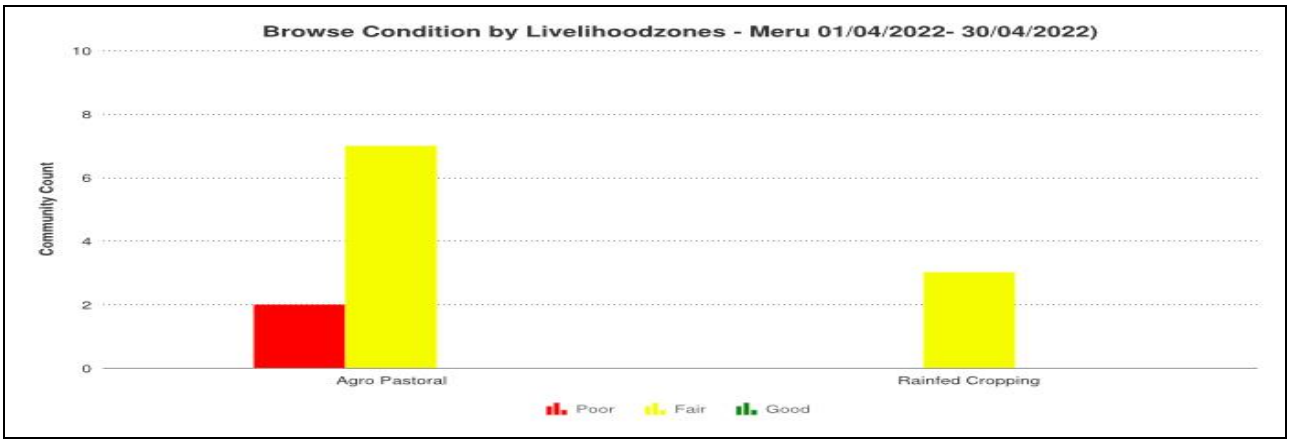


Figure 4: Browse condition in Meru County

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- The browse condition was fair across the livelihood zones expect in parts of Igembe North in Kamweline and Kinisa.
- The browse condition is below normal for this time of the year across the livelihood zones except in the rainfed livelihood zone where the condition is normal.
- The browse condition is expected to last for up to two months in the rainfed zone of Tigania East and less than a month in the mixed and Agropastoral livelihood zones.

2.2 WATER RESOURCE

2.2.1 Sources

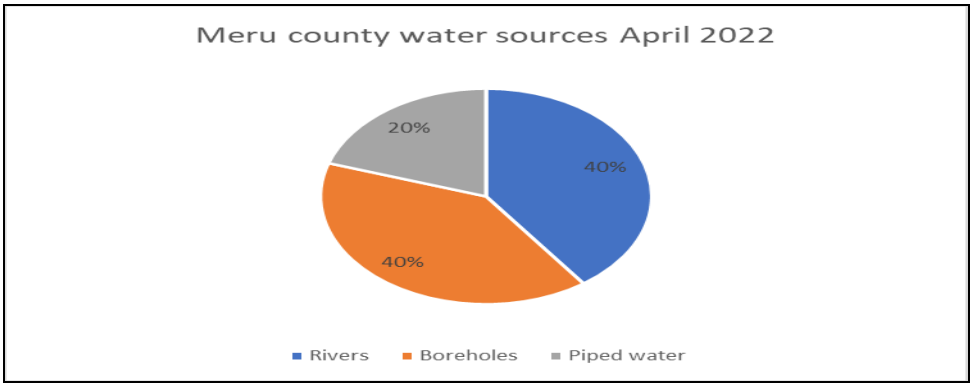

Figure 5: Water sources for Meru County

- From figure 5 shown above, the three main sources of water within the period under review were; Boreholes, rivers and piped water.
- Parts of Igembe North such as Kachuiru, Ndoleli and Mutuati rely on water trucking and water vendors. This is due to scarcity in underground water for human consumption hence challenges in drilling of boreholes in such areas.

2.2.2 Household Access to Water

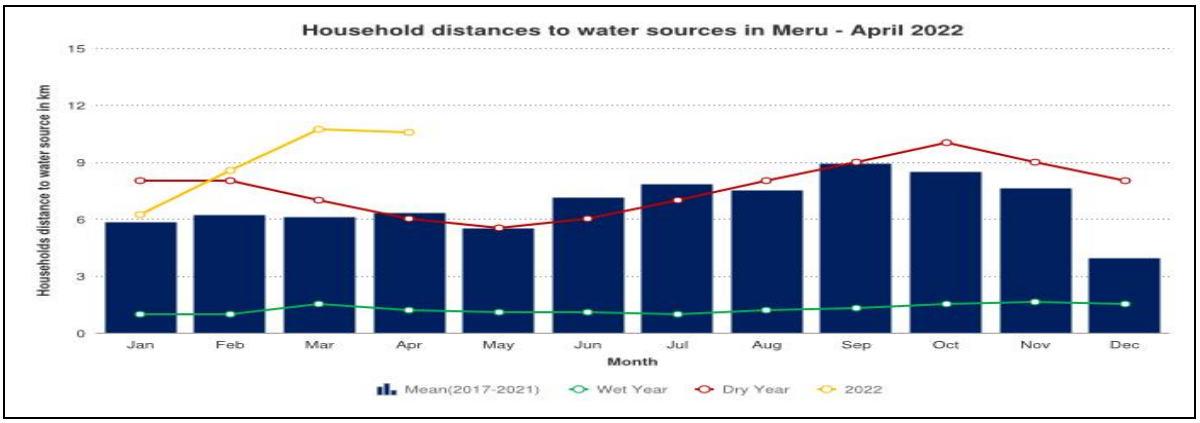

Figure 6: Household average distances to water sources

- From the figure {6} shown above, the average return distances to household water sources remained stably high at 10.6 km in April compared to 10.7 km in March.
- The distances are attributed to increased trekking distances in search of water due to drying up of sources especially in the agropastoral livelihood zone.
- The current household water distance remained above the Long-Term Average of 6.3 km by 70 percent.
- The average cost of 20 litre jerry can at water kiosks was at Ksh 2.5 across livelihood zones except in parts of Igembe North areas of where households depended on water trucking, and water vendors, the cost of a 20 litre jerrican is at Ksh 20.
- Treatment of drinking water is done by boiling and use of filtration with 30 percent of the sampled households treating drinking water.

2.2.3 Livestock Trekking Distance to Water Sources from Grazing Area

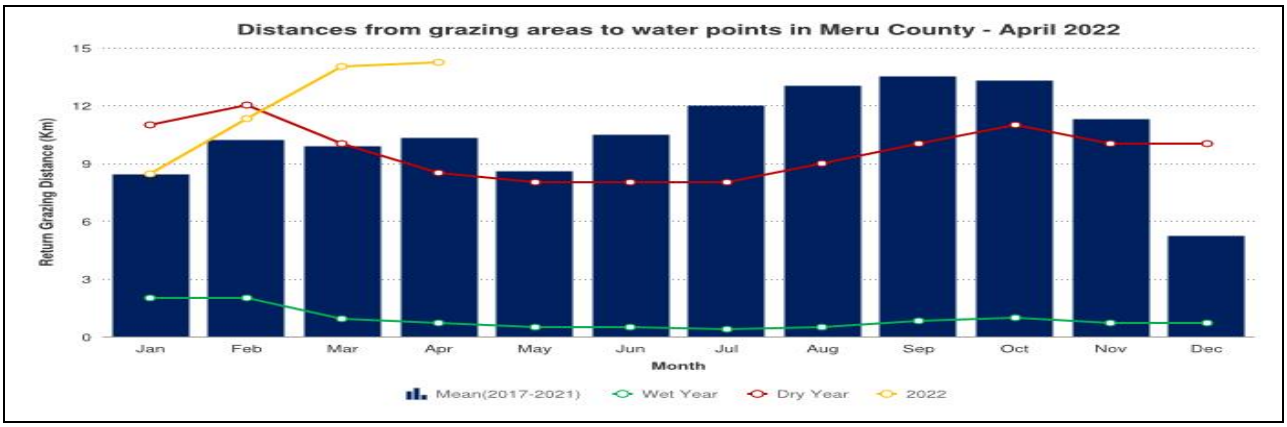

Figure 7: Livestock average return distances to water sources

- From (Figure 7) shown above, the average return from grazing areas to water points remained stably high at 14.2 km in April compared to 14 km in March.
- The high distances are due to increased distances to grazing areas.

- The watering frequency for both small stock and cattle was on a daily basis in Rain fed zone of Tigania East and mixed zone of Tigania West. In the Agro pastoral livelihood zone, the frequency was 2-3 days per week
- The current household water distance remained above the Long-Term Average of 10.3 km by 36 percent.

3.0 PRODUCTION INDICATORS

3.1 LIVESTOCK PRODUCTION

3.1.1 Livestock Body Condition

- The body condition of small stock and cattle was good in the rainfed livelihood zone and fair in the mixed livelihood zone. The body condition in Igembe Central was poor to fair and fair in Igembe North. The body condition is on a deteriorating trend with little to no regeneration and increased competition for already scarce forage.

3.1.2 Livestock Diseases

- Cases of foot and Mouth Disease have been reported in Lothera in Tigania west. The reported cases are due to migration into the county by unvaccinated livestock from neighbouring counties

3.1.4 Milk Production

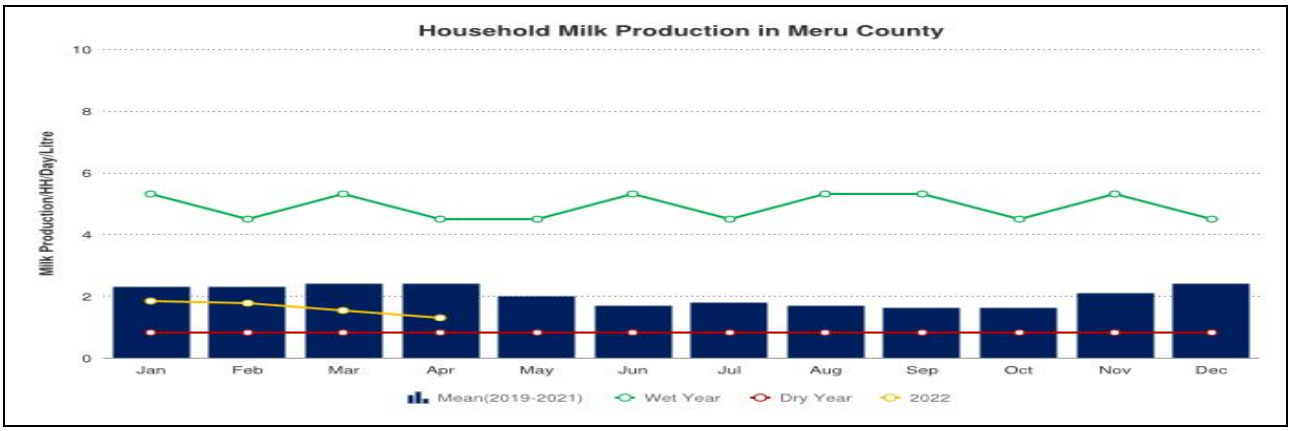

Figure 8: Household milk production in Meru North

- From the figure 8 above, the average daily milk production per household per day decreased to 1.3 litres per day in April compared to 1.5 litres in March.
- This is attributed to the deteriorating body condition of livestock across the zones due to the depleting forage.
- The current milk production of 1.3 litres is below the long-term average of milk production of 2.4 litres for this time of the year.
- Average milk price per litre at household level ranged at Ksh 60-100 across the livelihood zones

3.2 RAIN-FED CROP PRODUCTION

3.2.1 Stage and Condition of food Crops

- Crops are at germination stage in the Agro pastoral livelihood zone of Igembe North and Igembe central with farmers having re-planted due to termination of seedlings at the beginning of the season. The crops are in poor conditions in these zones.
- In the rainfed zone crops are at flowering stage.

4.0 MARKET PERFORMANCE

4.1 LIVESTOCK MARKETING

4.1.1 Cattle Prices

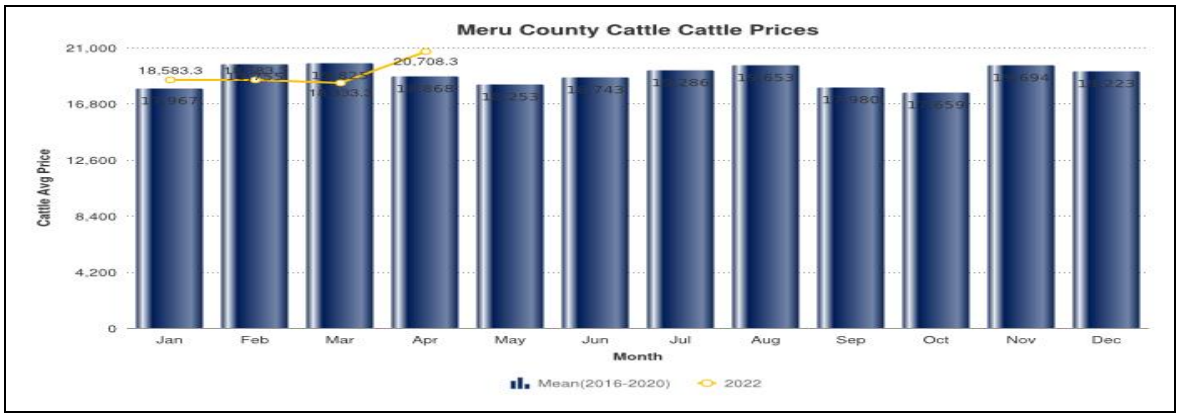

Figure 9: Average Market prices for cattle in Meru County

- From the figure (9) shown above, the average market price of three-year-old cattle for the month under review slightly increased at ksh 20,708 in April compared to ksh 18,333 in March.
- The slight increase is due to the improved market performance with the reopening of schools in the month.
- When compared to similar periods, the current cattle price of Ksh 20,708 above the long-term average of 18,868
- The highest price recorded for the month for cattle was at Ksh 24,000 in Kangeta Market in Igembe Central and lowest price recorded was Ksh 18,000 in Mutuati market in Igembe North

4.1.2 Goat Price

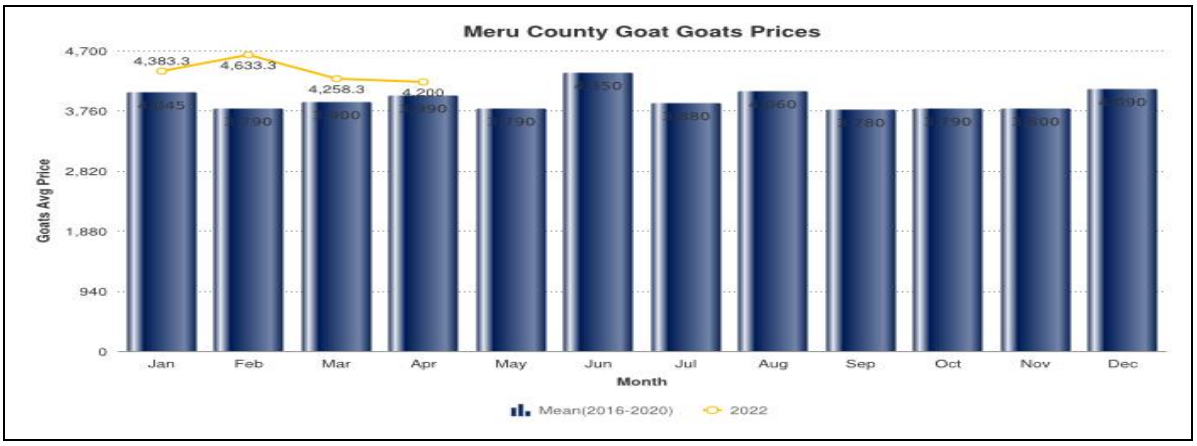

Figure 10: Average Market prices for goat in Meru County

- The average market price of a two-year goat for the month under review remained stable at Ksh 4,200 in April compared to Ksh 4,258 in March as illustrated in the above figure (10).
- When compared to the long-term average price of Ksh 3900 at similar periods the current price is above the long-term average by 8 percent.
- The decrease is attributed to poor demand for goats in the market and the general poor market performance with decreases household purchasing power.
- The highest goat prices were recorded in Mutuati in Igembe North at Ksh 5000 and lowest price was Ksh.3500 in Ng'undune

4.2 CROP PRICES

4.2.1 Maize

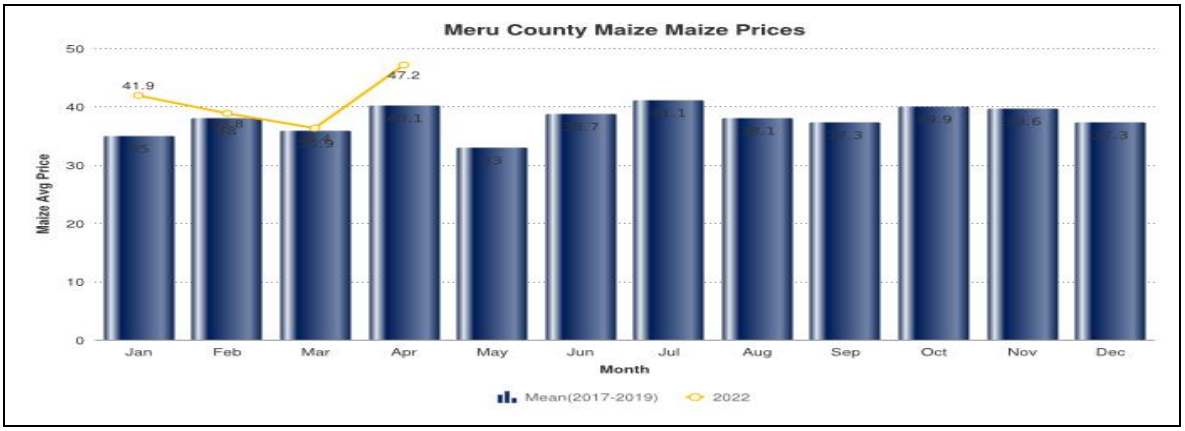

Figure 11: Average market prices for maize in Meru County

- The average market price of a kilo of maize significantly increased to Ksh 47 in April when compared to Ksh 36 in March.
- The increase in price is due to increase in demand due to depletion of household stock from the short rains harvest.
- The current market price is above the long-term average of Ksh 40.

- The highest maize price was recorded in Kangeta Market in Igembe Central at Ksh 60 and Mikinduri recording the lowest price at Ksh 38

4.2.2 Beans Prices

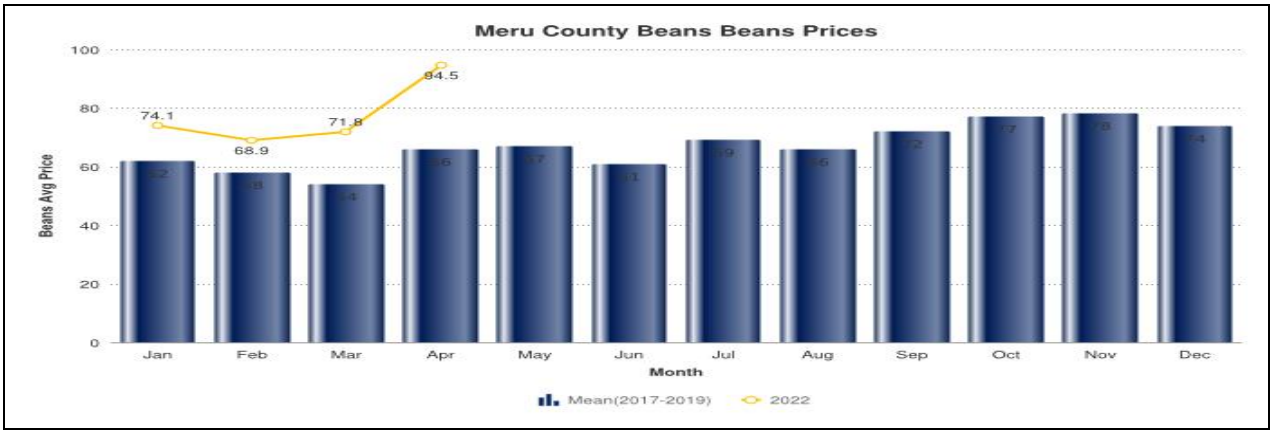

Figure 12: Average market prices for beans in Meru County

- From the figure {12} shown above, the average market price significantly increased to Ksh 95 in April compared to Ksh 72 in March.
- This price is significantly above the long-term average of Ksh 66.
- The high prices are attributed high demand for beans with majority of farmers having to replant for the season, with the poor harvest from the short rains the supply is low in the market.
- The highest market price per kilo was recorded in Kangeta Market in Igembe central at Ksh 107 and the lowest Mikinduri in Tigania West at Ksh 65.

INCOME

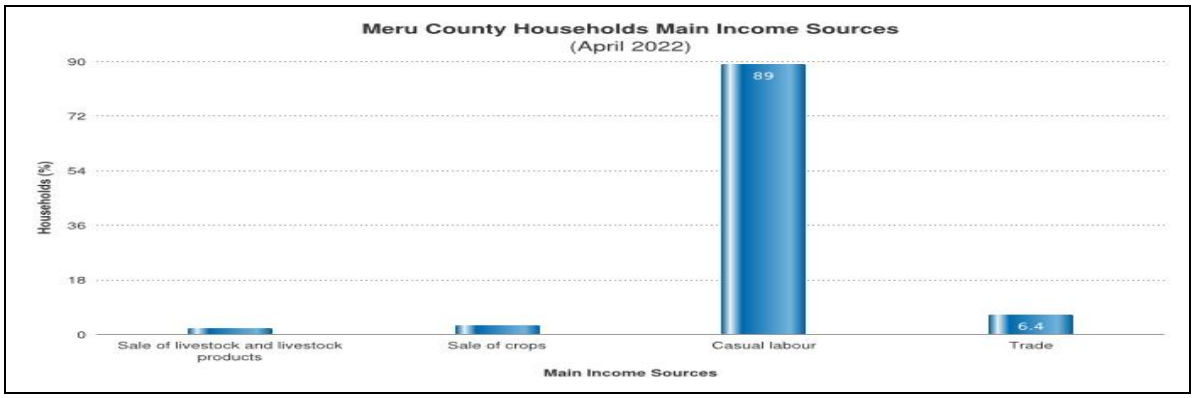

Figure 13: Sources of household income in Meru North

- The households' main source of income was casual labour accounting for 89 percent of household source of income, trade at 6.4, sale of livestock at 2.8 percent and sale of crops at 1.8 percent.
- Due to the poor harvest at household level, there is low supply of crops for sale in the market
- Households also use sale of 'Miraa', wood and charcoal as alternative sources of income.

4.2 TERMS OF TRADE

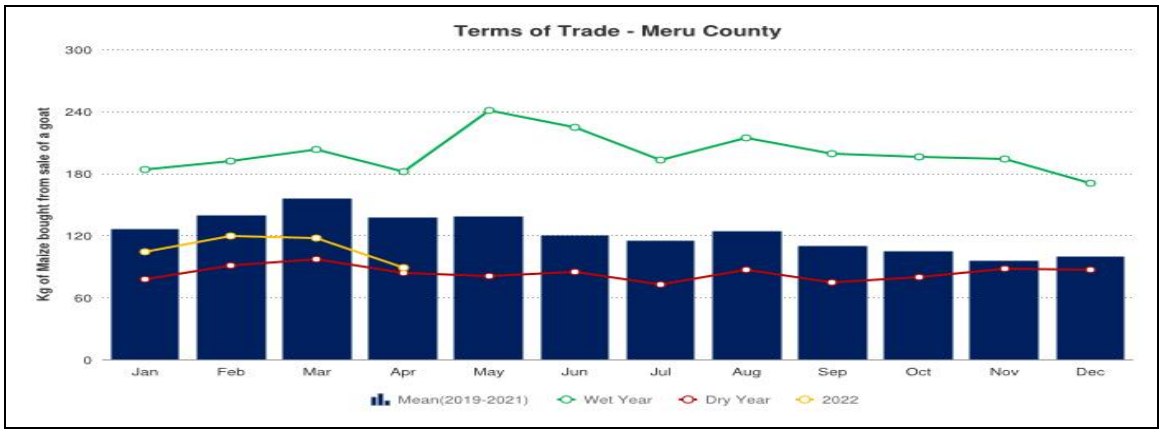

Figure 14: Terms of trade in Meru North

- The Terms of trade remained stable at Ksh 89 in the month under review compared to compared to Ksh 117 per kilogram of maize bought from a sale of a goat in the previous month as illustrated in the above figure 14. The terms of trade have remained significantly below the long-term average.
- The decrease is due to the stability in the price of goat as the price of maize significantly increased.
- The lowest amount for the Terms of Trade was in Tigania West at Ksh 72 and highest at Ksh 125 per Kilogram of maize realised from a sale of a goat in Igembe North.
- The current terms of trade below the long-term average of Ksh 137 by 15 percent.

5.0 FOOD CONSUMPTION AND NUTRITION STATUS

5.1 MILK CONSUMPTION

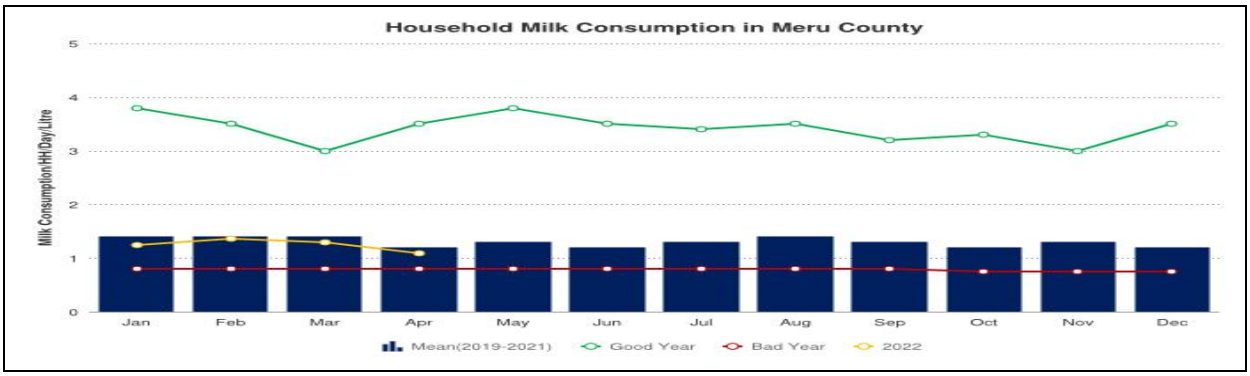

Figure 15: Average household milk consumption (l/hh/day)

- Milk consumption per household per day reduced at 1.1 litres in April compared to 1.3 litres in March.
- The current milk consumption per household per day is within the long-term average of 1.2 litres
- The stability is attributed to the deteriorating body condition of livestock across the zones with depleting pasture and browse.

5.2 FOOD CONSUMPTION SCORE

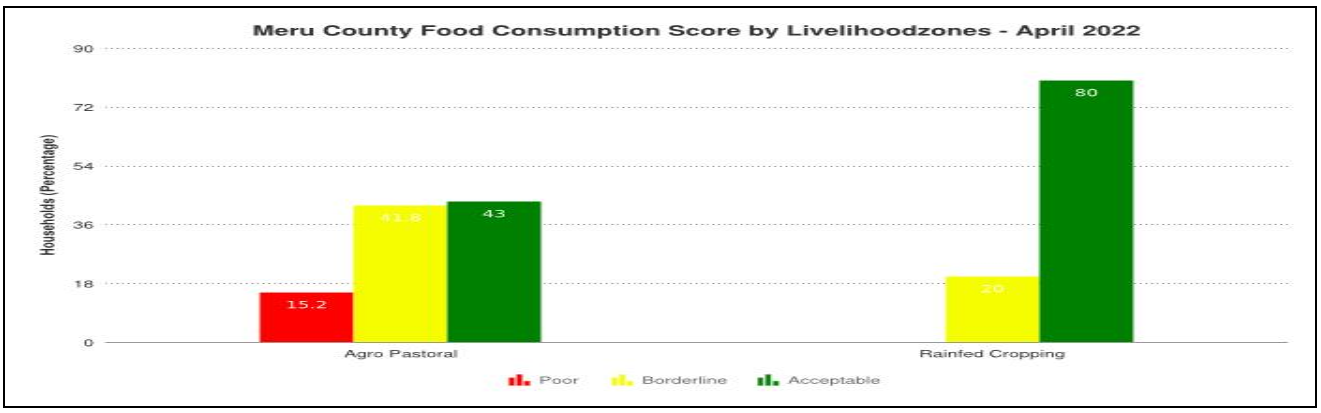

Figure 16: Household food consumption score

- Out of the sampled households from the sub counties, 11 percent were under poor food consumption score 36 percent were in the borderline food consumption score category implying that households were consuming starch and vegetables on a daily basis with a limited access to proteins and dairy products. 53 percent of households were under acceptable food consumption score
- The percentage of households under poor food consumption increased from 2.5 percent in the previous month with those in acceptable food consumption score decreasing from 63.9 to 53 percent
- This is due to the depletion of household stock and poor household purchasing power for meat and dairy products.

5.3 HEALTH AND NUTRITION STATUS

5.3.1 Nutrition Status of Children

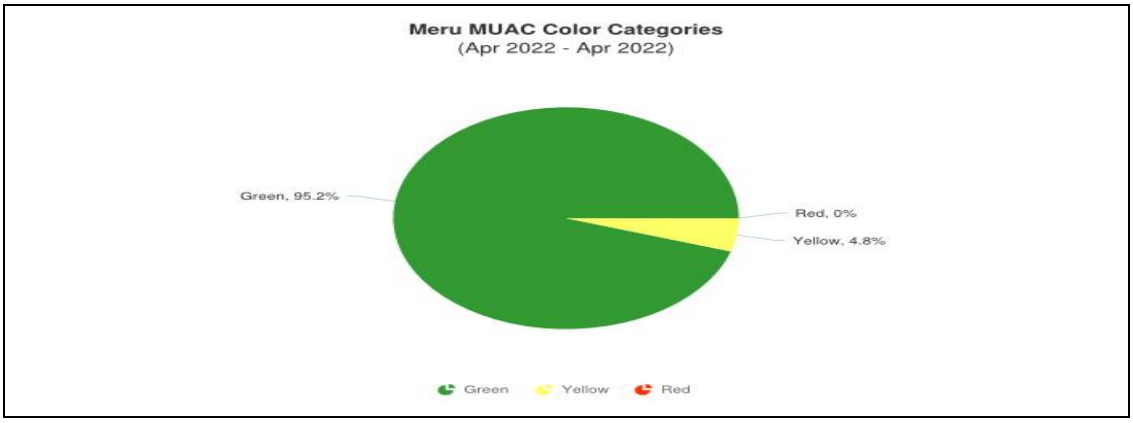

Figure 17: Children under five at risk of malnutrition in Meru County

- The nutritional status for children under five years at risk of malnutrition has remained stable compared to the previous month, however there has been an increase in percent of children under the yellow band compared to the previous month.
- Out of the sampled households, children at risk of malnutrition 96.5 percent were at green with the remaining 4.8 percent at yellow.
- However, according to the MOH cases of malnutrition are high outside the sentinel sites with the highest cases of patients admitted being reported in Igembe Central and Igembe south

5.4 Coping Strategy Index

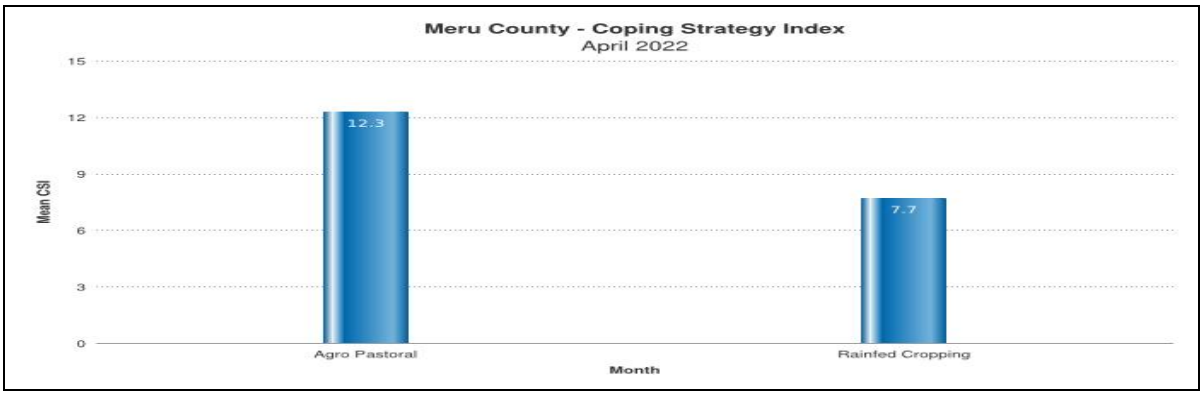

Figure 18: Household coping in Meru North

- Reduced consumption-based coping strategy index (rCSI) for the month under review increased at 10 compared to 8.75 in March.
- The copying strategy index is within the long-term average value of 11.02
- The agro pastoral livelihood zone recorded CSI of 12.3 while the rain fed livelihood zone recorded a coping strategy index of 7.7
- Households mainly resulted to reducing the quality and quantity of food consumed by adults as a coping strategy.

6.1 Migration and security

- Herders and livestock that migrated into Tigania West, Igembe Central and Igembe North are still in the county.
- The month has recorded several attacks in Igembe North, Igembe central and Tigania West and Tigania East. Four people lost their lives in Tigania East and two other injured due to conflict between herders from neighbouring counties and herders from the county several herds of cattle were lost and property destroyed.
- In kandebene in Tigania west herders were attacked with 10 camels slaughtered, in retaliation five people were killed by herders in the same area.
- Over 70 herds of cattle were stolen in Mutuati in Igembe North (Amwathi ward). Similarly, in kalimbene in Igembe central livestock were stolen with one person losing their life in an attack.
- Households especially in Tigania West areas of Kandebene have migrated to neighbouring town such as Isiolo and Muriri in fear of attacks.

6.2 FOOD SECURITY PROGNOSIS

- Households expect below average crop productivity with the late onset of the long rains season and its poor performance.
- Pasture and browse condition are expected to improve with regeneration of pasture in the next month due to the long rains season.
- Livestock production is expected to increase due the regeneration of pasture from the rains improving body condition and overall livestock productivity although remaining below the long-term average.
- Terms of trade will likely sustain the purchasing power for the households for the next 1-2 months.
- Tension expected to remain high due to competition for resources between herders and farmers in the county.

6.3 ON-GOING INTERVENTIONS

Intervention	Implementer	Beneficiaries
• Routine livestock diseases surveillance	• County Department of Livestock Production and Veterinary Services	Livestock farmers from both sub counties
• Routine Disease Surveillance • Routine screening management of malnutrition at health facility level • Routine Vitamin A and Zinc Supplementation and deworming at health facility level	• County Department of Health Services • National Government • UNICEF • Nutrition Interventions	Mothers and children who visited health facilities in both sub counties Households and health facilities in targeted community areas
• Repair and servicing of boreholes	• County department of water and NDMA	Community

• Provision of trucked water to health facilities and schools	• County department of water, Tana water and Ndma	Schools and community

7. SECTOR RECOMMENDATIONS

Sector	Recommended Activities	Proposed Implementers	Expected Outcome/Impact
AGRICULTURE	• Sensitization on improved farming methods • Capacity building on pest and diseases (Fall army worm and Locust) • Development of irrigation schemes • Capacity building on post-harvest practices • Provision of seeds to farmers for planting • Promotion of kitchen gardening • Promotion of soil and water conservation	County government Other Stakeholders World bank FAO	Reduced post-harvest losses due to poor storage Increased quantity and quality of harvest Improved productivity and profitability
LIVESTOCK	• Disease surveillance and promotion of good and husbandry practices and silage making • Strategic vaccination of animals	County government Other Stakeholders	Increased productivity Diversification of income Reduced outbreak of diseases Reduce loss due to death
WATER AND SANITATION	• Drilling and equipping of more boreholes • Desiliting of earth dams. • Construction of new big dams and pans. • Repair of the broken boreholes • Water piping	County government, Other Stakeholders	Improved potable water accessibility and consumption
HEALTH AND NUTRITION	• Sensitisation on good nutritional practises. • Provision of commodities for management of various types of malnutrition at health facilities. • Sensitization on use and provision of water treatment chemicals to households. • Upscaling Malnutrition screening at community level • Carrying out SMART survey to identify challenges	County department of health NDMA Development partners	Management of malnutrition amongst under five children Reduced cases of water borne diseases

SECURITY	• Peace talks and conflict management between farmers and herders from neighbouring communities • Formation of peace committees to curb insecurity	County government NDMA	Reduced cases of conflict