National Drought Management Authority

NAROK COUNTY

DROUGHT EARLY WARNING BULLETIN FOR FEBRUARY 2020

FEBRUARY EW PHASE

Drought Situation & EW Phase Classification

Biophysical Indicators

Rainfall

- Moderate to heavy rains was registered in the county.
- The rains were fairly distributed in both time and space across the livelihood zones.

Vegetation condition:

- The county is experiencing above normal vegetation greenness as depicted by the vegetation condition index (VCI) this month.

Socio Economic Indicators (Impact Indicators)

Production indicators:

- Maize and beans harvest is on-going and land preparation for the Long rains season.
- Livestock body condition was generally good across all the livelihood zones.
- Improved milk production ranging from fair to good and within the normal range compared to the long-term average.

Access indicators:

- Terms of trade remained stable across all the livelihood zones.
- Milk consumption remained stable in all the livelihood zones.
- Water access for both human and livestock consumption remained good across the livelihood zones.
- Distances to water sources is stable and below the normal range.

Utilization Indicators:

- Cases of malnutrition reduced compared to last month and is below the normal as indicated by percent of mid upper arm circumference (MUAC).
- Most households were within acceptable food consumption scores and employed normal coping strategies in accessing food.

Early Warning (EW) Phase Classification

Livelihood Zone	Phase	Trend
AGRO PASTORAL	NORMAL	STABLE
MIXED FARMING)	NORMAL	STABLE
PASTORAL	NORMAL	STABLE
COUNTY	NORMAL	STABLE
Biophysical Indicators	**Value**	**Normal Range/Value**
VCI-3Month	86.95	>35
Forage condition	Good	Good
Production indicators	**Value**	**Normal**
Crop Condition (Maize)	Fair-good	Normal
Livestock Body Condition	Good	Good
Milk Production in litres	3.2	>2
Livestock Migration Pattern	No migration	Normal
Livestock deaths (Drought related))	No death	No death
Access Indicators	**Value**	**Normal**
Terms of Trade (ToT)	91.2	>62
Milk Consumption in litres	2.1	>1
Return distance to water sources in km	1.7	<5
Cost of water at source in Kshs (20 litres)	0-5	<5
Utilization indicators	**Value**	**Normal**
Nutrition Status, MUAC (% at risk of malnutrition)	3.1	<10

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

1.0 CLIMATIC CONDITIONS

1.1 RAINFALL PERFORMANCE

- The county continued to receive moderate off-season showers. There was no significant inter-livelihood variation in terms of amounts recorded.
- The temporal and spatial distribution was fair across the livelihood zones.
- The rainfall received were within the normal range.

1.2 AMOUNT OF RAINFALL AND SPATIAL DISTRIBUTION

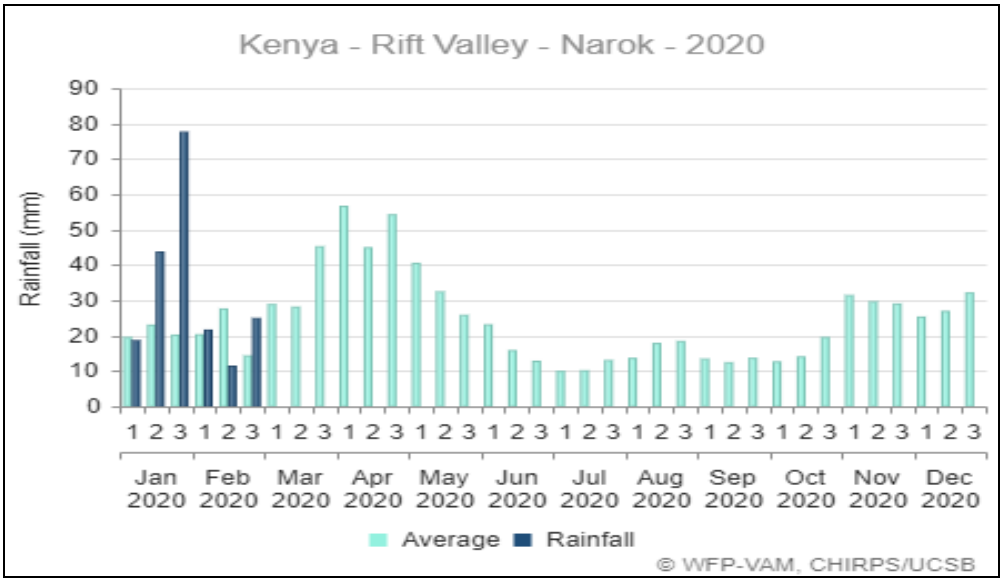
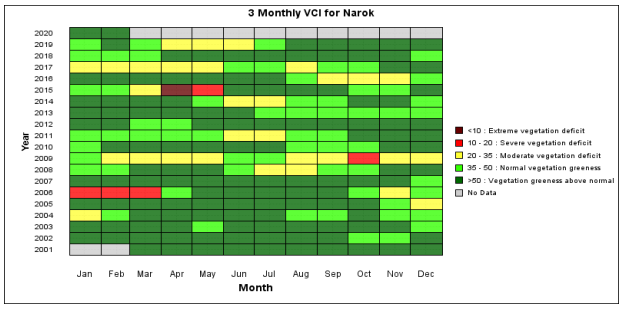


Figure 1: Rainfall performance-Narok County

- The above satellite image (Figure 1) highlights the general performance of the rains in the county for the month of February, 2020 in comparison with the long-term averages.
- Rainfall performance in the first and third dekads of February were above normal in terms of amount received with the second dekad posting below normal rainfall amount compared to the long-term seasonal range.
- The county registered seven percent above normal rains during the month under review as shown in figure 1.

2.0 IMPACTS ON VEGETATION AND WATER

2.1 VEGETATION CONDITION



The vegetation greenness as depicted by the vegetation condition index (VCI) shows above normal vegetation greenness across the county (Figure 2) in respect to historical minimum and maximum VCI values. The improved vegetation condition is as a result of the enhanced rainfall recorded in the county.

Figure 2: VCI: Narok County

2.1.1 Field observations

2.1.1.1 Pasture

- The pasture quantity and quality in all livelihood zones remained good with a significant improvement in the pastoral livelihood zone.
- The available pasture is likely to last for more than four months in mixed farming and agro-pastoral livelihood zones and three months in the pastoral livelihood zone. This is attributed to rains received in the county.
- The current pasture situation is above the normal range.

2.1.1.2 Browse

- The quantity and quality of browse in across all the livelihood zones was good. The available browse is expected to last for more than five months in mixed farming livelihood zone while in pastoral livelihood zone, it is likely to last for three to four months.
- The current browse situation is within the normal range.

2.2 Water resources

2.2.1 Sources

- The main sources of water for livestock and human consumption in the county were rivers, pans/dams, boreholes, traditional river wells and shallow wells as shown by Figure 3.
- The quantity and quality of water ranged from fair to good in the mixed farming and agro-pastoral livelihood zones with the pastoral livelihood zone having fair quality. Pans and dams were the most used sources in the pastoral and agro-pastoral livelihood zones.

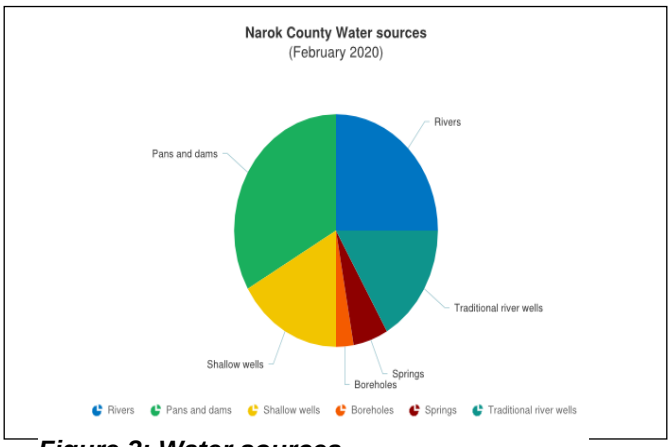


Figure 3: Water sources

- The current water sources are expected to last for 5-6 months in mixed farming and agro-pastoral livelihood zones. In pastoral livelihood zone, the water is likely to last for four months. The current water situation is above the normal range at this time of the year.

2.2.2 Household access and Utilization

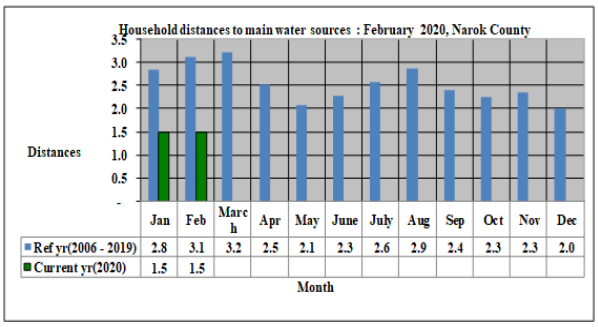


Figure 4: Water access by households

The average distance to watering points for households remained the same compared to the previous month.

Pastoral livelihood zone recorded the longest average distance at 2.2 kilometres while the shortest average distance was recorded in mixed farming livelihood zone at less than half a kilometre. The reduced distance is owned to rains received in the county during the month under review depicting an improvement in water accessibility by households.

The current trekking distances to water points are below normal compared to the long term means as shown by Figure 4.

2.2.3 Livestock access

2.2.4 The average distance to main water sources from grazing areas increased by six percent compared to the previous month. The Pastoral livelihood zone recorded the longest distance of three kilometres while the shortest distance was recorded in the mixed farming livelihood zone at less than a kilometre. The current average trekking distance is significantly below the normal range at this time of the year as shown in Figure 5.

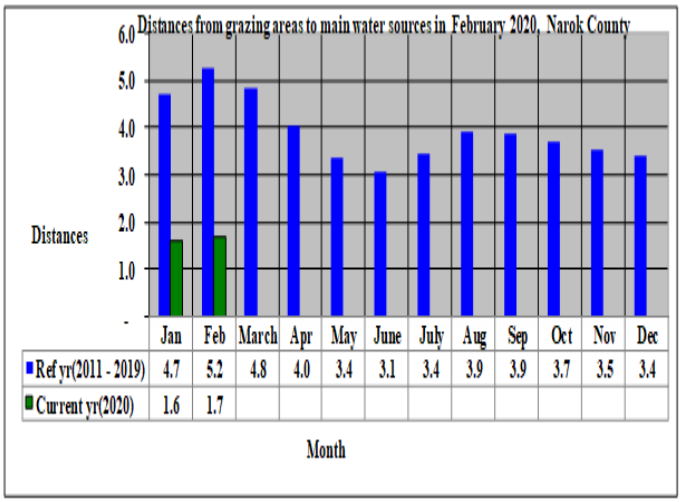


Figure 5: Water access by livestock

3.0 PRODUCTION INDICATORS

3.1 LIVESTOCK PRODUCTION

3.1.1 Livestock Body Condition

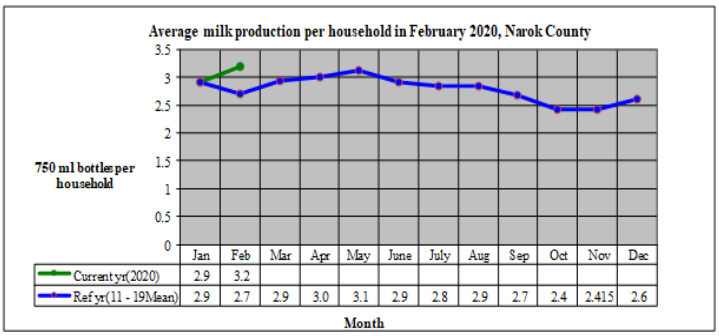
- Livestock body conditions for cattle, sheep and goats was good across all the livelihood zones which is attributed to availability of adequate forage and water.
- The body condition is anticipated to improve further as forage conditions continue improving across the livelihood zones owing to on-going rains.
- The current livestock body condition is above normal range at this time of the year.

3.1.2 Livestock Diseases

- There were reported cases of Bluetongue disease, Lumpy skin disease (LSD), anthrax, persistent cases of Foot & Mouth Disease (FMD), Foot rot and contagious caprine pleuro-pneumonia (CCPP) and contagious bovine pleuro-pneumonia (CBPP) in Trans Mara West, Trans Mara East, Narok East and Narok South sub counties.
- Measures taken were treatments and vaccinations upon request by farmers and own arrangements with animal practitioners.

3.1.3 Milk Production

- The average milk produced per household per day increased by ten percent compared to the previous month as shown by Figure 6.
- Milk production is 0- 5 litres in the pastoral areas, 1-10 litres in agro-pastoral areas and 1-15 litres in the mixed farming livelihood zone.



	Jan	Feb	Mar	Apr	May	June	July	Aug	Sep	Oct	Nov	Dec
Current yr(2020)	2.9	3.2										
Ref yr(11 - 19Mean)	2.9	2.7	2.9	3.0	3.1	2.9	2.8	2.9	2.7	2.4	2.415	2.6

Figure 6: Milk production

- The improved milk production is attributed to forage and water availability coupled with reduced trekking distances to water sources.
- The current milk production is above the normal range.

3.2 RAIN-FED CROP PRODUCTION

3.2.1 Stage and Condition of food Crops

- The crops planted in the County include beans, sorghum, maize, wheat and potatoes in Narok North, Kilgoris and Emurua Dikirr sub-counties.
- On-going harvesting of maize and beans in Mau and Melili in Narok North, Sogoo and Oloolulunga in Narok South, Elenerai and Mulot in Narok West, Emurua Dikirr and Kilgoris.
- Beans and potato production reduced due to excessive rains that resulted into leaching of nutrients, water logging, rotting and increased incidences of pests and diseases.

4.0 MARKET PERFORMANCE

4.1 LIVESTOCK MARKETING

4.1.1 Cattle Prices

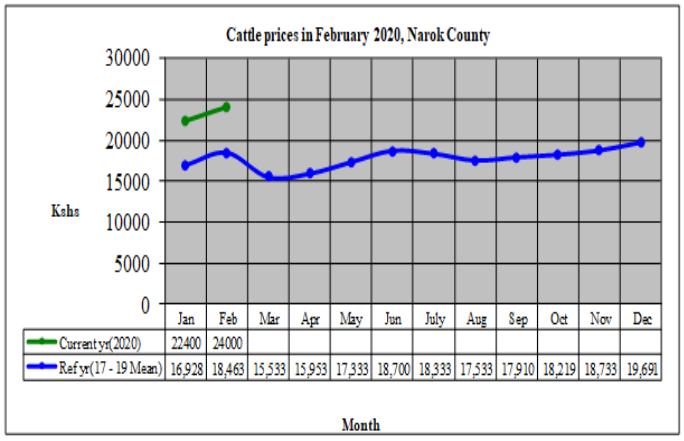


Figure 7: Cattle prices

The average price for the medium sized cattle marginally increased by seven percent compared to the previous month. Those in the pastoral zone fetched more prices at Kshs 27,800 per head while the lowest price was in the agro-pastoral livelihood zone at an average price of Kshs 17,000 per head. The increase was attributed to improvement in livestock body condition. The current cattle price is above normal compared to such at this time of the year as shown by (Figure 7).

4.1.2 Goat Prices

- The average goat prices marginally reduced compared to the previous month.
- The highest price was recorded in the mixed farming livelihood zone at Kshs 4,500 per head while the lowest price was recorded in the pastoral livelihood zone at Kshs 3,600 per head.
- The stability in price is due to high demand and good body condition.

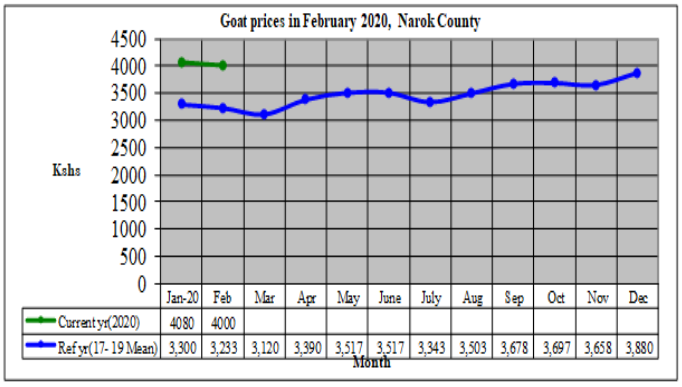


Figure 8: Goat prices

- The average goat price was above the normal range at this time of the year as shown in Figure 8.

4.2 CROP PRICES

4.2.1 Maize

- The average price of maize per kilogram reduced by eight percent compared to the previous month. The highest price was recorded in the pastoral livelihood zone at Kshs. 50 while the lowest price was recorded in the Mixed farming zone at Kshs. 40. The decrease in price is attributed to maize availability in the market and on-going harvest in the mixed farming zone.
- The overall price is below the expected long-term average as shown by Figure 9.

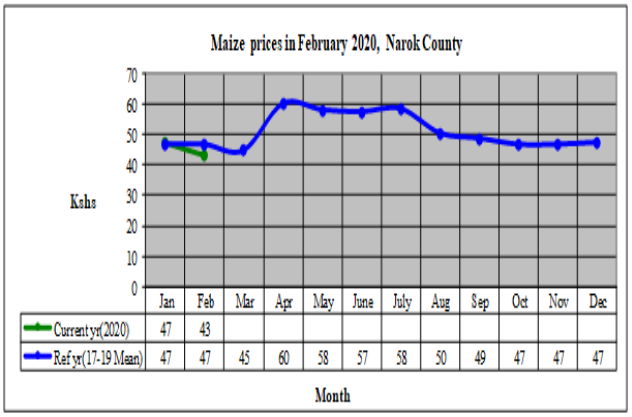


Figure 9: Maize prices

4.2.2 Beans

- The average price of beans insignificantly increased by two percent compared to the previous month. There was no significant price variation across the livelihood zones
- The increase in price is owed to low harvest coupled with rotting of beans due to water logging.

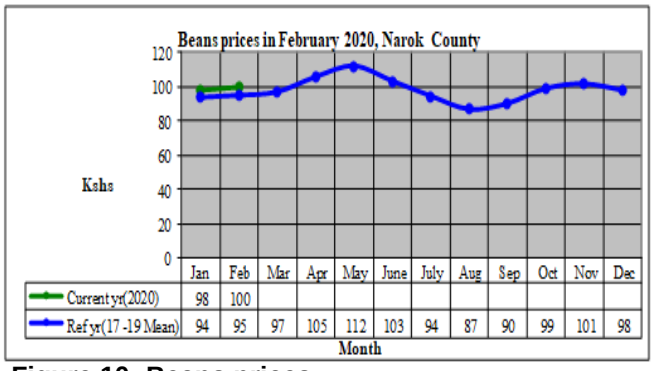


Figure 10: Beans prices

- The current price is above the normal range at this time of the year as shown by Figure 10.

4.3 Livestock Price Ratio/Terms of Trade

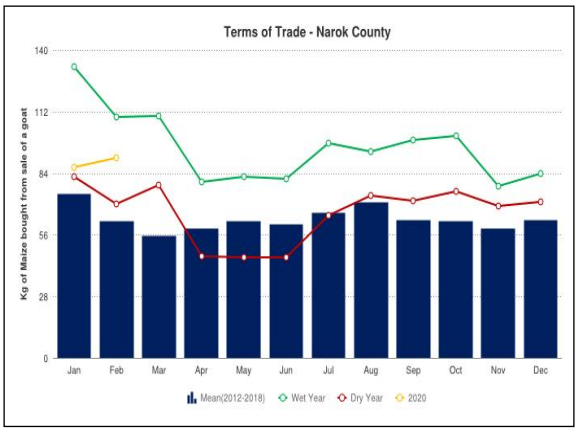


Figure 11: Terms of trade

The Terms of Trade (ToTs) based on the cereal/meat prices increased by five percent compared to the previous month. The increase in ToTs is due to stable livestock and increased maize prices. This implies that a sale of one goat fetched 91.2 kgs of cereals. The ToTs were less favourable in the agro-pastoral and mixed farming livelihood zones compared to pastoral livelihood zone.
The current cereal/meat price ratio is above normal range as shown in Figure 11.

5.0 FOOD CONSUMPTION AND NUTRITION STATUS

5.1 MILK CONSUMPTION

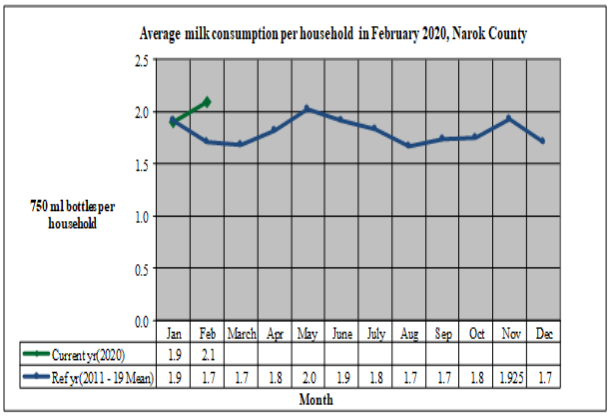


Figure 12: Milk consumption

Average household milk consumption per day increased by eleven percent compared to the previous month. There were inter-livelihood variations in milk consumption with mixed farming livelihood zone having the highest consumption rate at 1-5 litres, followed by agro-pastoral livelihood zone at 0-5 litres. The pastoral livelihood zone had the least consumption rate at 0-3 litres. The current milk consumption rate is above the normal range at this time of the year as shown by Figure 12.

5.2 FOOD CONSUMPTION SCORE

- Approximately 98.1% and 1.5 % of the sampled households fell within the acceptable and borderline food consumption categories respectively. Those in the poor category were negligible in the month under review.
- The acceptable implies that households are consuming staples, protein (milk and meat) and vegetables every day and frequently accompanied by pulses. Borderline implies that households are consuming staples and vegetables every day accompanied by oil and pulses a few times in a week. The poor food consumption score implies households are not consuming balanced diet and rarely consuming food rich in protein and energy giving food. There was insignificant variation across the livelihood zones as shown in Figure 13. A few of the sampled households in the Agro-Pastoral livelihood zones fell under borderline food consumption category.

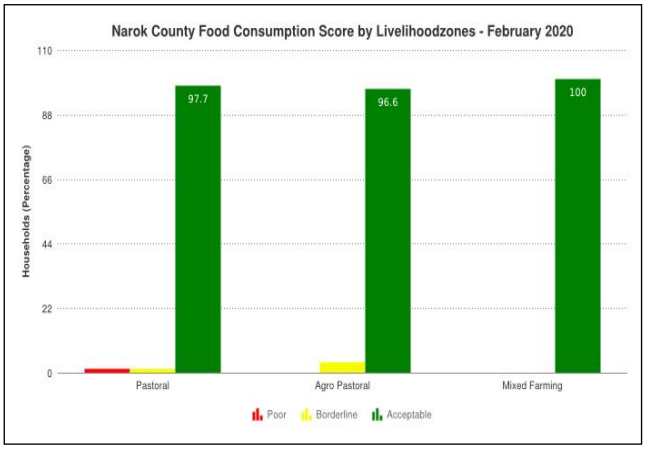


Figure 13: Food consumption score

5.3 HEALTH AND NUTRITION STATUS

5.3.1 Nutrition Status

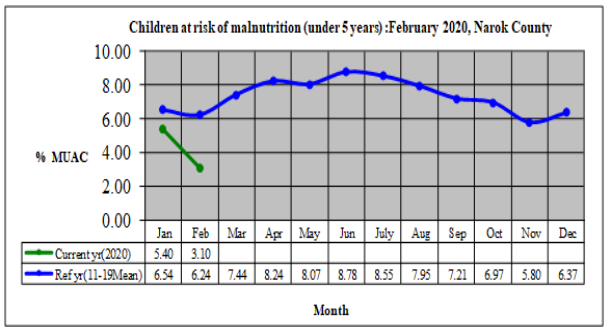


Figure 14: Children at risk of malnutrition

The children under five years of age who are at risk of malnutrition as indicated by the Mid-Upper Arm Circumference (MUAC) reduced to 3.1 percent from 5.4 percent compared to the previous month as shown by Figure 14. However, areas of Mosiro ward and Ntuka in Naroosura ward in the pastoral livelihood zone still had some children with moderate malnutrition cases owing to increased cereal prices due to poor accessibility to market and fever condition owing to chilly weather conditions.

The current rate of malnutrition is below the normal range compared to the long-term average as shown by Figure 14.

5.3.2 Health

Fewer cases of fever and diarrhoea were recorded in the pastoral and the agro-pastoral livelihood zones during the month under review.

5.3 COPING STRATEGIES

The CSI for the County in February was at 3.1 depicting an increased compared to 2.9 in the previous month. Households employed normal coping strategies in accessing food across all the livelihood zones as shown by Figure 15. The pastoral livelihood zone had higher CSI compared to mixed farming livelihood zones.

The coping strategies are normal at this time of the year.

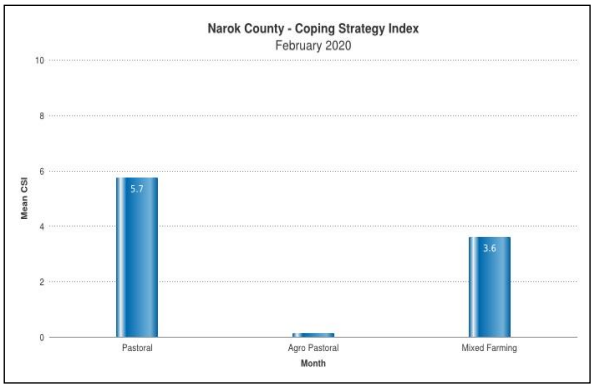


Figure 15: Coping strategies

6.0 CURRENT INTERVENTION MEASURES (ACTIONS)

6.1 NON-FOOD INTERVENTIONS

- Construction of Kichechi Water Pan with a Capacity Of 50,000m3 in Ilkerin ward, Transmara East Subcounty, Fencing of Mosiro Sale Yard in Mosiro Ward, Narok East Subcounty, Olesere Community Water Pipeline in Siana ward in Narok west subcounty by NDMA funded by European union.
- The County government is implementing the National Agricultural and Rural Inclusive Growth project (NARIGP). The project is funded by the World Bank covering 20 wards in the county and aims at increasing agricultural productivity and profitability of targeted beneficiaries.
- Construction of 4 water projects (Sogoo, Pinyiny, Olopikidongoe and Entasekera) in four Wards of Sogoo, Lolgorian, Loita and Mosiro at a cost of Kshs 176M. The projects are being funded by Water Services Trust Fund.
- Epidemic diseases surveillance in Narok West Sub County is ongoing. The program is being funded and implemented by KRCS in collaboration with Ministry of Health and Veterinary department.

6.2 FOOD AID

- The Ministry of Interior and Coordination through the office of the County Commissioner has received some relief food items and distributed of 2500 bag of rice (50kg) to 55 learning institution and 33 children homes.

7.0 EMERGING ISSUES

7.1 Insecurity/Conflict/Human Displacement/Floods

- No major conflict issues that are related to drought were reported during the month under review.

7.2 Migration

- Most livestock grazed within their wet season grazing areas.

7.3 FOOD SECURITY PROGNOSIS

- The ongoing rains will have a positive impact on crop, nutrition, water and livestock sectors. Crop conditions particularly for maize crop will improve and therefore resulting into better yield. However, beans and tomatoes production might reduce since they had been affected adversely by water logging and diseases.
- Forage and water conditions will continue to improve and therefore livestock body condition and productivity is expected to perform well which may result to further reduction in malnutrition cases due to improved milk consumption at household level. Livestock trekking distance is likely to reduce further owing to above normal recharge in water sources.
- Due to availability of food items at the households and reduced maize prices, the number of children at risk of malnutrition is likely to reduce further. However, WASH component mostly pastoral livelihood zone might be affected negatively due to contamination of water sources.

8.0 RECOMMENDATIONS

- Livestock disease surveillance should be enhanced across the county. This is due to the persistence of foot and mouth disease, blue tongue and PPR in the county especially in the pastoral livelihood zone.
- Surveillance of water sources to be enhanced due to possibility of contamination by flood waters.
- Regular weather advisories should be enhanced to avoid loss of lives and livelihood owing to the above normal rains in the county.
- Establishment of preparedness activities especially in water and livestock sectors will boost the resilience level of the vulnerable communities to cope better in future against the effects of drought.
- Provision of planting farm inputs e.g. seeds, fertilizers, pesticides and other implements
- Continued support to strengthen community livelihood and adaptation