

National Drought Management Authority
KITUI COUNTY
DROUGHT EARLY WARNING BULLETIN FOR JUNE 2019



A Vision 2030 Flagship Project



JUNE EW PHASE	Early Warning Phase Classification		
Drought Status: ALERT  Maandalizi ya mapema	LIVELIHOOD ZONE	EW PHASE	TRENDS
	Marginal Mixed Farming	Alert	Worsening
	Mixed Farming	Alert	Worsening
	County	Alert	Worsening
Drought Situation & EW Phase Classification			
Biophysical Indicators			
<ul style="list-style-type: none"> ▪ No rains were received in the month of June and this situation is normal at this time of the year. ▪ The vegetation greenness was below normal. <p>Socio-Economic Indicators (Impact Indicators)</p> <p>Production Indicators</p> <ul style="list-style-type: none"> ▪ Most crops had wilted due to moisture stress while some were in flowering/grain filing stage and in poor condition. ▪ Livestock body condition was fair for all the species with no abnormal cases of livestock diseases and death reported. ▪ Milk production was below normal. <p>Access Indicators</p> <ul style="list-style-type: none"> ▪ Terms of trade were unfavourable compared to long term mean. ▪ Milk consumption was within the normal range. ▪ Distances to water sources were above normal range. ▪ The cost of water at source was normal. <p>Utilization Indicators</p> <ul style="list-style-type: none"> ▪ The percentage of children mid at risk of malnutrition was within normal range. ▪ Households employed normal coping mechanisms to cope with lack of food or money to buy food. 	Biophysical Indicators	Value	Normal ranges
	Rainfall (% of normal)	100	80-120
	VCI-3 month	28.15	35-50
	Forage Condition	Fair to poor	Good
	Production indicators	Value	Normal ranges
	Maize Crop Condition	Poor	Good
	Livestock Body Condition	Fair	Good
	Milk Production (in litres)	1.4	≥ 1.7
	Livestock Migration Pattern	Not normal	Normal
	Livestock Deaths (from Drought)	No death	No death
	Access Indicators	Value	Normal ranges
	Terms of Trade (ToT)	90	≥ 94
Milk Consumption (in litres)	1.2	≥ 0.7	
Return Distance to Water Sources (in km)	7.8	≤ 6.3	
Cost of Water at Source (20 litres Jerry can)	2-5	≤ 5Ksh	
Utilization indicators	Value	Normal ranges	
Nutrition Status, MUAC (% at risk of malnutrition)	5.5	≤ 7.8	
Coping Strategy Index (CSI)	7.1	≤ 5.2	

<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 month of June was dry across the livelihood zones. However, light drizzles were experienced in some parts of Mixed Farming livelihood zone.
- On average, the county recorded 1.7mm 0.8mm and 0.8mm of rainfall in first, second and third dekad of June respectively compared to 1.1mm, 0.4mm and 0.6mm normally. This was 100 percent of normal rainfall recorded in June.

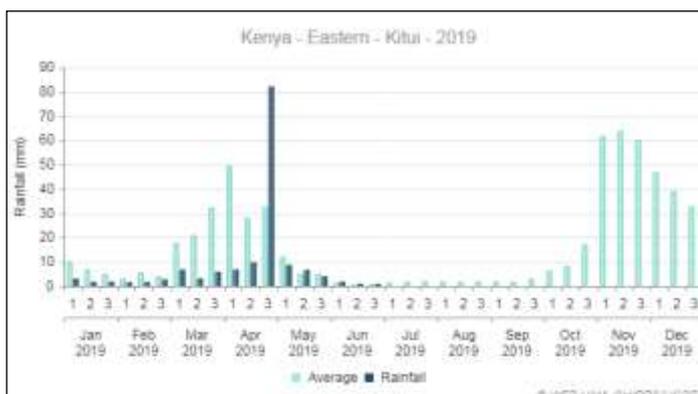


Figure 1: Rainfall Distribution for the Year 2019

2.0 IMPACTS ON VEGETATION AND WATER

2.1 VEGETATION CONDITION

2.1.1 Vegetation Condition Index (VCI)

- The county vegetation greenness improved by 49 percent to stand at a 3 month VCI of 28.15 in June from 18.84 in May, this is an indication of moderate vegetation greenness as shown in figure 2.
- The current vegetation greenness is below normal as shown in figure 3.



Figure 2: Kitui County 3 Month VCI

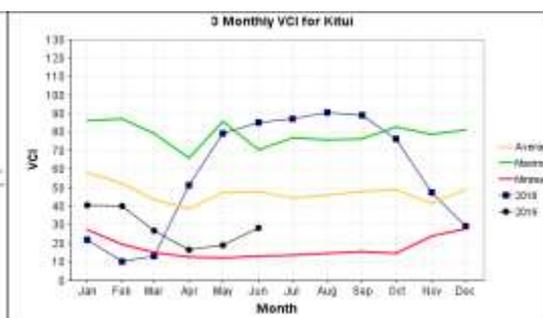


Figure 3: Kitui County 3 Month VCI

2.1.2 Pasture

- Pasture quality and quantity conditions ranged from fair to poor across the livelihood zone.
- Majority (70 percent) of pasture was considered poor in June as it was in previous month. The remaining 30 percent of pasture was fair in both quality and quantity.
- The most affected areas included Ngomeni, Nguni, Kivou, Nuu, Endau/Malalani, Mutha, Kanziku, Ikutha, Athi and Voo/Kyamatu wards.
- The available pasture is expected to last for 1-2 months in Marginal Mixed Farming livelihood zone and 2-3 months in Mixed Farming livelihood zone compared to 3-4 months normally.

2.1.3 Browse

- The condition of browse improved in June compared to May. On average, about 67 percent of browse was considered fair in June as it was in May. The remaining 22 and 11 percent of browse was poor and good in both quality and quantity respectively.
- The current browse condition is below normal at this time of the year.

2.2 WATER RESOURCE

2.2.1 Sources

- The main water sources for both human and livestock consumption were boreholes, pans & dams, shallow wells, piped water system and traditional river wells as shown in figure 4.
- Water level at open water sources remained low and is expected to last for 1-3 months compared to 3-6 months normally.
- Three (3) strategic boreholes in Tharaka Ward were reported to have broken down.

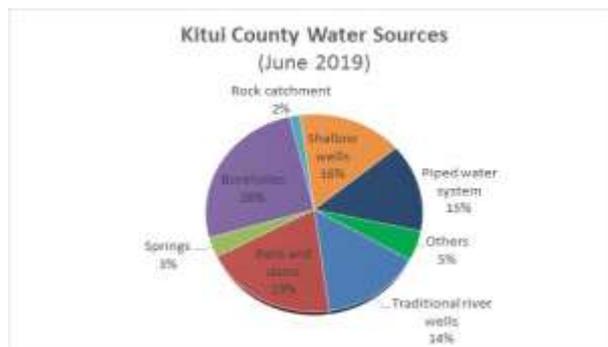


Figure 4: Kitui County Main Water Sources

2.2.2 Household Access and Utilization

- The average return distances from the households to water sources remained stable at 7.8km in June from 7.2km in previous month.
- Households in the Marginal Mixed Farming livelihood zone trekked a higher distance at 10km to main water sources compared to 5.1km in the Mixed Farming livelihood zone.
- The current water distance is 24 percent higher than the long term mean as shown in figure 5.
- Water consumption per person per day remained stable at 13 litres in June compared to 14 litres in previous month and the proportion of households buying water stood at 24 percent in June compared to 22 percent in previous month.
- The average price of water per 20 litre Jerry can at source was normal at 2 to 5 shillings.

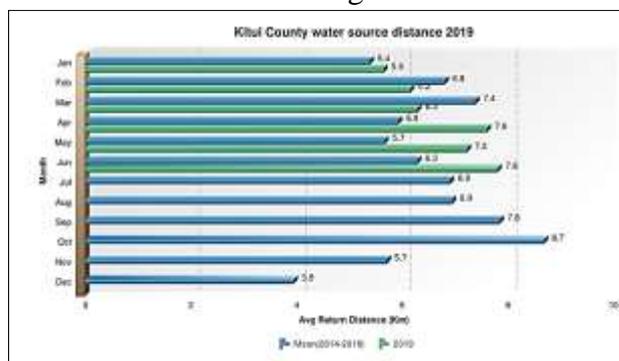


Figure 5: Household Access to Water

2.2.3 Livestock Access

- Livestock average return distances from grazing areas to watering points increased by 16 percent to stand at 8.0km in June compared to 6.9km in previous month.
- This was attributed to the drying up of nearby water sources and diminishing pastures in the nearby areas thereby prompting farmers to look for water and pastures elsewhere far from home.
- Livestock in the Marginal Mixed Farming livelihood zones trekked relatively longer distances at 10.4km compared to 5.1km in the Mixed Farming livelihood zones.
- Livestock were being watered on alternate days across the livelihood zones compared to daily normally.
- The current average distance from the livestock grazing areas to watering points is 36 percent above the long term mean as shown in figure 6.

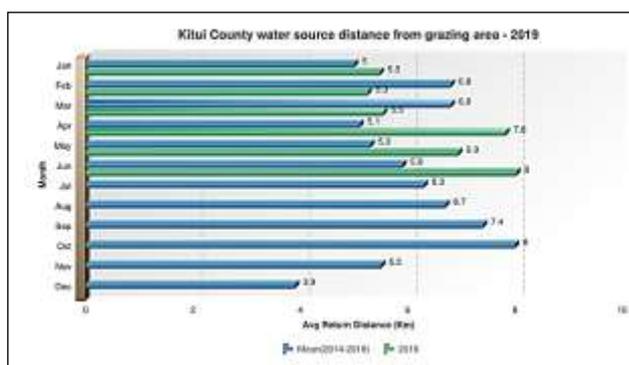


Figure 6: Average Grazing Distances

2.3 Implication of the Above Indicators to Food Security

- Livestock productivity is expected to deteriorate due to declining forage condition and increasing trekking distances to water sources.

3.0 PRODUCTION INDICATORS

3.1 LIVESTOCK PRODUCTION

3.1.1 Livestock Body Condition

- Livestock body condition ranged from good to fair for all livestock species with a deteriorating trend.
- Majority (76 percent) of livestock had moderate neither fat nor thin body condition and the remaining 24 percent had good smooth appearance body condition. This was attributed to the diminishing forage and increased trekking distance to water sources.
- This trend is not normal at this particular time of the year.

3.1.2 Livestock Diseases

- Suspected cases of Newcastle and PPR disease outbreak were reported in Tseikuru ward in Mwingi North Sub County. Fowl pox was also reported in Kyuso Ward.
- On the other hand, unconfirmed cases of foot and mouth were reported in Emumba (Voo/Kyamatu ward) and CCPP in Kitui East Sub County.

3.1.3 Milk Production

- The average daily milk production per household declined by 13 percent to stand at 1.4 litres in June compared to 1.6 litres in previous month.
- Households in Marginal Mixed Farming livelihood zone produced an average of 1.6 litres per day compared to 1.1 litres in the Mixed Farming livelihood zone.
- The current milk production per household per day is 18 percent lower than the long term mean as shown in figure 7.

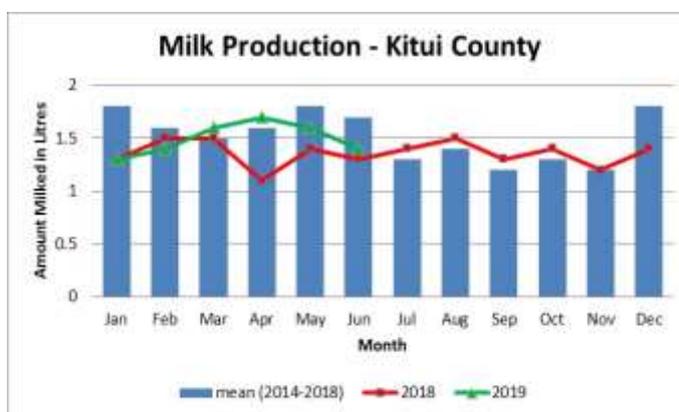


Figure 7: Milk Production

3.2 RAIN-FED CROP PRODUCTION

3.2.1 Stage and Condition of Food Crops

- Main crops grown in the county included maize, beans, cow peas, green grams, pigeon peas, sorghum and millet.
- Wilting of crops was reported across the livelihood zones due to moisture stress. However, in some parts of the county, green grams, millet and sorghum were in flowering/grain filling stages with poor condition while in some areas they experienced minimal harvest.

3.3 Implication of the above indicators to food security

- Diminishing livestock productivity and disease outbreaks are likely to impact negatively on household purchasing power.
- Below normal crop harvest is expected and this will lead to reliance of market for food commodities hence a rise in price of food stuffs.

4.0 MARKET PERFORMANCE

4.1 LIVESTOCK MARKETING

4.1.1 Cattle Prices

- The average market price of cattle increased by 14 percent to stand at Ksh.27,370 in June from Ksh.23,944 in previous month. This could have been attributed to reduced market volumes in the market.
- Cattle prices were higher in Mixed Farming livelihood zone at Ksh.28,500 compared to Ksh.26,467 in Marginal Mixed Farming livelihood zone.
- The current market price of cattle is 17 percent lower than the long-term mean as shown in figure 8.

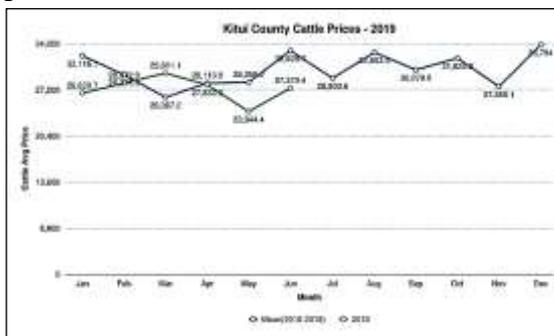


Figure 8: Cattle Prices

4.1.2 Small Ruminants Prices (Goat price)

- The average market price of goat remained stable at Ksh.3,667 in June from Ksh.3,830 in previous month.
- Mixed Farming livelihood zone recorded a higher price of Ksh.4,283 compared to Ksh.3,173 in Marginal Mixed Farming livelihood zone.
- The current market price of goat is 12 percent higher than the long term mean as shown in figure 9.

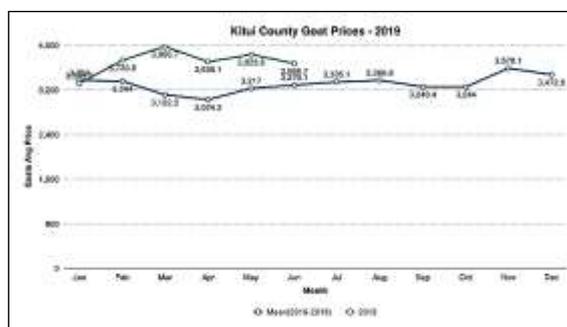


Figure 9: Goat Prices

4.2 CROP PRICES

4.2.1 Maize

- The average market price of maize per kilogram remained stable at Ksh.41 in June from Ksh.42 in previous month. This was attributed to availability of the commodity in the market from traders sourcing from other counties.
- Maize price was higher in the Marginal Mixed Farming livelihood zone at Ksh.41 compared to Ksh.40 in the Mixed Farming livelihood zone.
- The current market price of maize is normal compared to the long term mean as shown in figure 10.

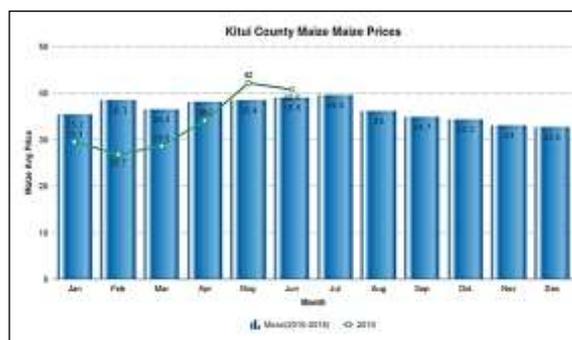


Figure 10: Maize Prices

4.2.2 Beans

- The average market price of beans remained stable at Ksh.85 in June from Ksh.81 in previous month.
- Beans price was higher in the Marginal Mixed Farming livelihood zone at Ksh.88 compared to Ksh.81 in the Mixed Farming livelihood zone.
- The current beans price is 8 percent higher than the long-term mean as shown in figure 11.

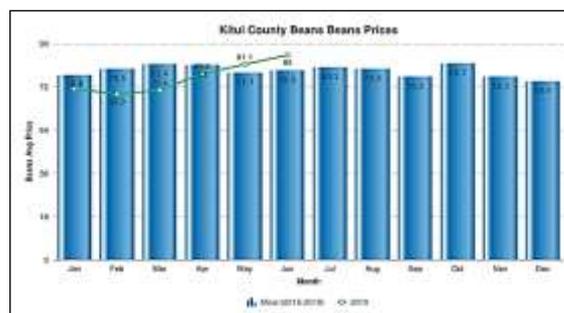


Figure 11: Beans Prices

4.3 Livestock Price Ratio/Terms of Trade

- Terms of trade remained stable at 90 in June compared to 91 in previous month. This implies that, households were able to purchase 90 kilos of maize from earnings of a goat in June compared to 91 kilos in previous month.
- The sale of one goat would enable a household in Mixed Farming livelihood zone to purchase 107 kilos of maize compared to 77 kilos in Marginal Mixed Farming livelihood zone.
- The current terms of trade is 4 percent below the long term mean as shown in figure 12.

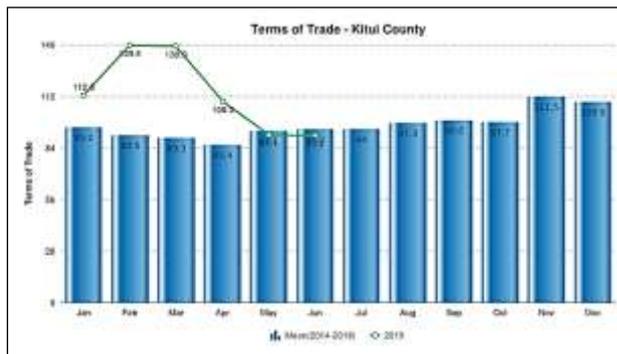


Figure 12: Terms of Trade

4.4 Implication of the above indicators to food security

- Price of food commodities is likely to increase due to overreliance of market on food supplies and this might impact negatively on household purchasing power.

5.0 FOOD CONSUMPTION AND NUTRITION STATUS

5.1 MILK CONSUMPTION

- The average daily milk consumption per household remained stable at 1.2 litres in June compared to 1.3 litres in previous month.
- Households in the Mixed Farming livelihood zone consumed an average of 1.1 litres of milk compared to 1.0 litres in Marginal Mixed Farming livelihood zone.
- The current milk consumption is 71 percent higher than the long term mean as shown in figure 13.

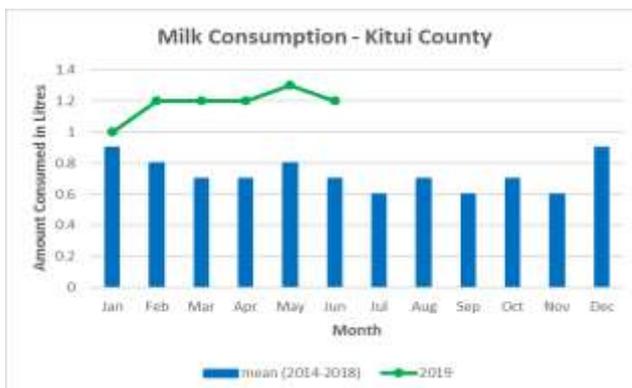


Figure 13: Milk Consumption

5.2 FOOD CONSUMPTION SCORE

- The proportion of households in acceptable food consumption category increased to 80.7 percent in June compared to 77.7 percent in previous month. This was attributed to minimal harvest experienced in the season which impacted positively on household dietary diversity.
- The remaining 18.9 and 0.4 percent of households were in borderline and poor food consumption category respectively as shown in figure 14.
- Majority (91.7 percent) of households in Mixed farming livelihood zone were in acceptable food consumption category compared to 72 percent in Marginal Mixed Farming livelihood zone.

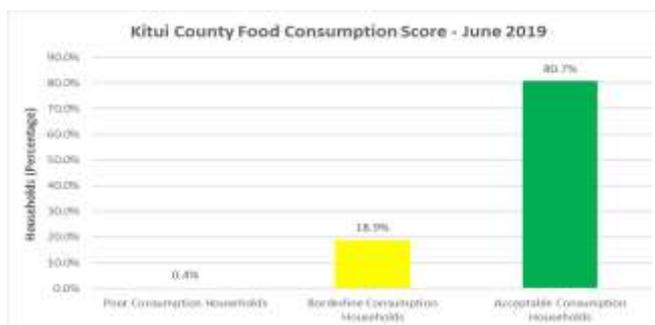


Figure 14: Food Consumption Score

5.3 HEALTH AND NUTRITION STATUS

5.3.1 Nutrition Status

- The proportion of children mid at risk of malnutrition (MUAC 125-134mm) increased to 5.5 percent in June from 4.7 percent in previous month.
- No cases of moderately (MUAC 115-124mm) and severely (MUAC <115mm) malnourished children were reported.
- The current level of children mid at risk of malnutrition is 2.3 percent below the long term mean as shown in figure 15 and this is attributed to improvement in household eating habits.

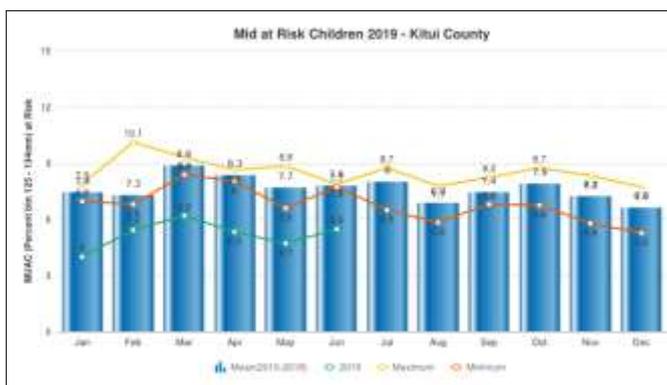


Figure 15: Proportion of Children at Risk of Malnutrition

5.3.2 HEALTH

- The proportion of children suspected to have fever with chills like malaria, fever with breathing difficulties and diarrhoea stood at 3.0, 1.5 and 1.2 percent in June compared to 3.6, 1.3 and 1.2 percent in previous month respectively.

5.4 COPING STRATEGIES

- The mean coping strategy index (CSI) remained stable at 7.1 in June as it was in previous month. This implies that, households employed consumption based coping strategies to cope with lack of food or money to buy food.
- Households in Marginal Mixed Farming livelihood zone had a high CSI of 9.4 compared to 4.8 in Mixed Farming livelihood zone.
- The current CSI is 37 percent above the long term mean as shown in figure 16.

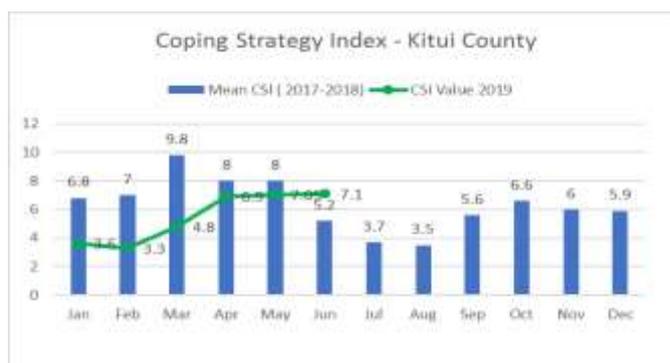


Figure 16: Coping Strategy Index

6.0 CURRENT INTERVENTION MEASURES

6.1 NON-FOOD INTERVENTIONS

- **Emergency water trucking** by County Government of Kitui and World Vision.

6.2 FOOD AID

- Therapeutic Integrated Management of Acute Malnutrition for the Under-fives, Pregnant and Lactating Mothers (Supplementary Feeding Program (SFP), Out Patient Therapeutic Program (OTP) & Stabilization Centres by Ministry of Health supported by several partners

7.0 EMERGING ISSUES

7.1 Insecurity/Conflict/Human Displacement

- Although the security team has contained the situation, tension is still high in Ngomeni, Nguni and Endau/Malalani wards which is suspected to have led some households to run away from their homes for fear of resource-based conflicts. This has been brought by immigration of pastoralists from Tana-River county who are in search of water and pasture for their livestock.

7.2 FOOD SECURITY PROGNOSIS

- Livestock productivity is expected to deteriorate due to declining availability of water and pasture in-addition to livestock disease outbreaks. This will impact negatively on household purchasing power.
- Below normal crop harvest is expected to diminish household food stocks hence lead to reliance on market for food stuffs. This might lead to a rise in price of food commodities.
- Competition over limited resources is likely to result to resource-based conflicts which will lead to displacement of households and disruption of markets.

8.0 RECOMMENDATIONS

Immediate/Short term

- Upscale emergence water trucking in hotspot areas
- Intensify livestock disease control measures.
- Promote home-based water treatment and conservation measures such as storage facilities.
- Promote integrated health outreach programs.
- Repair and maintenance of strategic water points.
- Community sensitization on the importance of fodder preservation and controlled grazing.
- Range cube and hay sourcing for distribution in affected areas
- Joint peace meeting initiatives

Medium and Long term

Water Sector

- Promotion of water harvesting, storage and management.
- Create awareness on the importance of protecting water sources.

Agriculture Sector

- Capacity building on safe use of chemicals by National Government, County Government and development partners.
- Enhance asset creation for households especially Farm ponds and water pans for food production by National Government, County Government and development partners.
- Enhance irrigated Agriculture by conducting Soil analysis and crops suitability surveys in all by National Government, County Government and development partners.

Livestock Sector

- Community sensitization on the importance of fodder preservation and controlled grazing.
- Pasture establishment and seed bulking.
- Livestock development programs to improve production (goats, chicken, cattle).

Health and Sanitation Sector

- Support to Mobile outreach immunization.
- Formation of mother to mother support groups.
- Sensitization on hygiene and sanitation at household level.
- Carry out routine disease surveillance.
- Improve Vitamin A supplementation to children under five years and de-worming
- Improve vector control activities.

Education Sector

- Promotion of water harvesting, storage and management in schools.
- Enhance HGSMP in all public institutions.

Peace Building Initiatives

- Peace building and conflict management initiatives.