



**NATIONAL DROUGHT MANAGEMENT AUTHORITY**

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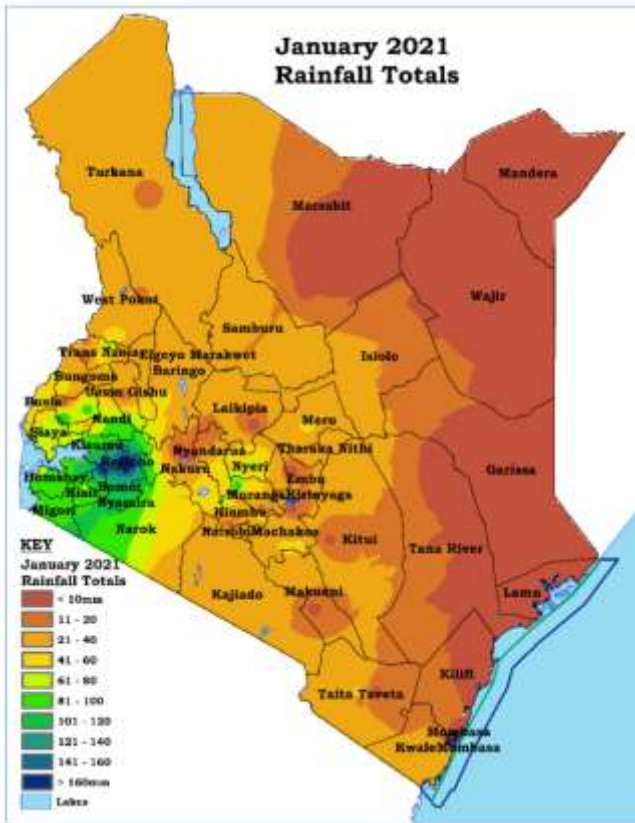
## **National Drought Early Warning Bulletin**

**February 2021**

# 1 Drought status

## 1.1 Drought indicators

### *Rainfall*



**Figure 1: Rainfall Performance: January 2021 Rainfall Totals**

The month of January marked the onset of the dry season. As a result, most ASAL counties experienced sunny, hot and dry weather conditions for most of January 2021 which is usual for this time of the year.

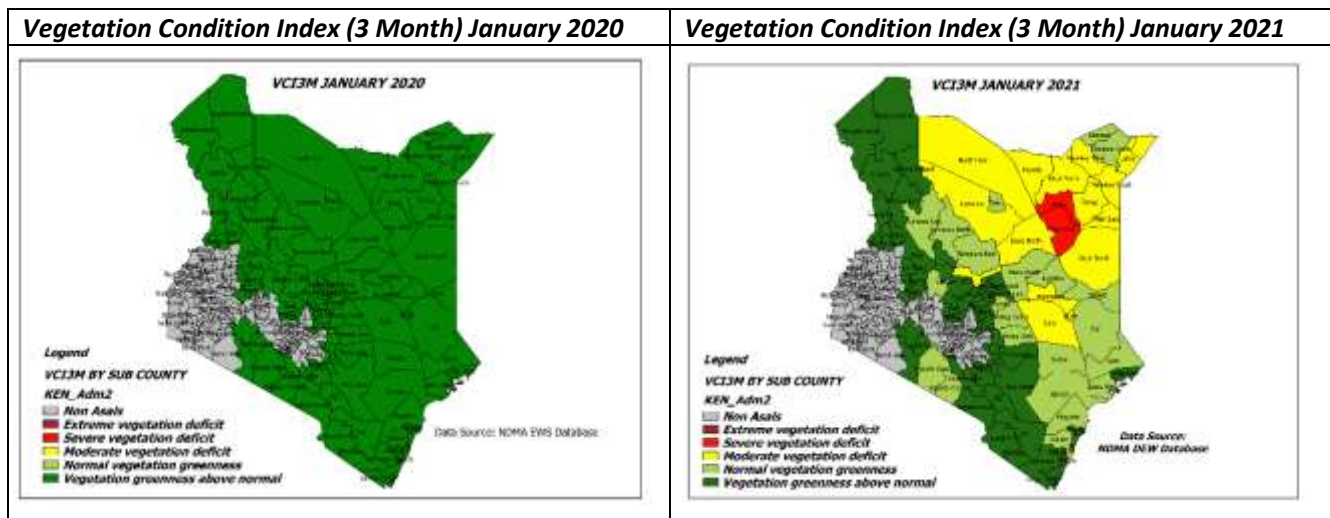
Figure 1 shows the total amount of rainfall recorded in January 2021. Overall, rainfall performance in most parts of the country was depressed with most ASAL counties recording rainfall amounts that were below 50 mm.

During the month, higher than average daytime temperatures were recorded over the entire ASAL region. The higher than average daytime temperatures led to raised rates of evaporation and evapotranspiration which caused faster reduction in water levels in the open water reservoirs and from the soil surface hence resulting in rapid drying up of dams, water pans, and moisture stress/wilting in pasture and crops.

**Vegetation condition**

Figure 2 compares the vegetation condition index (VCI) in January 2020 with that in January 2021. The maps show that in most ASAL counties, the current condition of vegetation is worse when compared to similar period last year and the long-term average which is attributed to the below average rains received during the October to December 2020 rainfall season.

**Figure 1: Comparison of Vegetation Condition Index (VCI), January 2020 and January 2021**



As of 25<sup>th</sup> January 2021, four ASAL counties namely; Marsabit, Mandera, Isiolo and Wajir were classified in the **moderate vegetation deficit** class; a total of 15 ASAL counties (Baringo, Embu, Kajiado, Kwale, Laikipia, Lamu, Kitui, Makueni, Meru, Narok, Nyeri, Taita Taveta, Tharaka Nithi, Turkana and West Pokot) had **above normal vegetation** condition, while 4 counties (Garissa, Samburu, Tana River and Kilifi) were in the **normal vegetation greenness** category.

Currently 2 sub counties **Eldas** and **Wajir West** in Wajir County are experiencing **severe vegetation deficit** while 15 sub counties spread in 6 counties are in the **moderate vegetation deficit** band. These includes: i) Mandera (**Mandera East, Lafey, Mandera South and Mandera West**); ii) Wajir (**Wajir East, Wajir North, Wajir South and Tarbaj**); iii) Marsabit (**Laisamis, Moyale, North Horr**); iv) Garissa (**Balambala, Dujis**); v) Isiolo (**Isiolo North**); and vi) Tana River (**Bura**) are in the **moderate vegetation deficit** band. Indicating that in these areas, the rainfall received during the OND season did not increase the vegetation greenness to the expected normal ranges for the period.

**Livestock production**

In nearly all the counties, livestock production related indicators are currently lower compared to last month due to reduction in pasture availability, both in terms of quantity and quality coupled with increase in trekking distances in search of pasture and water.

**Pasture and browse condition**

The state of pasture and browse in most of the arid and semi-arid counties was generally in fair and good condition as shown in Table 1. However, most counties reported that the quantity and

quality of pasture and browse was declining. The deteriorating trend was mainly as a result of the below average performance of the October to December rainfall.

On the other hand, other factors also limited pasture and browse access. For instance, in Isiolo County, insecurity along Isiolo - Garissa, Isiolo - Wajir and Isiolo - Laikipia border hindered access to pasture and browse. In addition, other factors limiting pasture access include; increase in invasive plant species, inadequate water in the wet grazing areas, outbreak of Rift Valley Fever (RVF) in Kinna and Sericho Wards and ticks and tsetse fly infestation in Garbatulla and Kinna Ward. Similarly, in Mandera County, pasture access was constrained by insecurity and poor water availability especially in Mandera West, Banisa, Lafey and Kutulo sub-counties.

**Table 1.0: Pasture and browse condition, January 2021**

<i>Pasture</i>			<i>Browse</i>		
<i>Poor</i>	<i>Fair</i>	<i>Good</i>	<i>Poor</i>	<i>Fair</i>	<i>Good</i>
Isiolo Lamu Mandera Wajir	Baringo Kajiado Garissa Kitui Laikipia Marsabit Meru North Narok Nyeri Samburu Tana River West Pokot	Embu Kwale Makueni Taita Taveta Tharaka Nithi	Isiolo Lamu Mandera	Baringo Garissa Kajiado Kitui Laikipia Meru North Nyeri Samburu Tana River West Pokot	Embu Kwale Makueni Marsabit Narok Taita Taveta Tharaka Nithi

### ***Livestock body condition***

Livestock body condition for all livestock species was good to fair across all the ASAL counties as illustrated in Table 2. However, in Turkana County, livestock body condition was generally fair and on a deteriorating trend in the Fisheries Livelihood Zone (Kalimapus and Nachukui) and the Pastoral Zone (Kalapata, Lokichar and some parts of Kanamkemer Ward). Likewise, fair to poor livestock body condition was observed in the Pastoral Livelihood Zones of Mandera and Tana River counties and in some pockets of North Horr and Laisamis Sub County of Marsabit County. The poor livestock body condition was attributed to rapid depletion of forage due to below average 2020 Short rains and long trekking distance in search of water and forage. It is anticipated that the livestock body condition for all livestock categories would deteriorate further as the rangeland conditions worsen due to the projected above normal surface temperature between February and early April when the long rains are expected.

**Table 2.0: Livestock body condition, January 2021**

Cattle			Goats		
Poor	Fair	Good	Poor	Fair	Good
	Baringo Kitui Lamu Mandera Narok Nyeri Tana River Wajir West Pokot	Embu Garissa Isiolo Kajiado Kwale Laikipia Makueni Marsabit Meru North Samburu Taita Taveta Tharaka Nithi		Baringo Kitui Lamu Mandera Narok Nyeri Tana River Wajir West Pokot	Embu Garissa Isiolo Kajiado Kwale Laikipia Makueni Marsabit Meru North Samburu Taita Taveta

### ***Milk production***

Most ASAL counties registered a reduction in milk production during the month under review (Table 3). For example, in Marsabit County, average milk production per household per day decreased by 43 percent to 1.3 litres in January from 2.3 litres in December while household milk production per day in Samburu dropped by 15 percent from 2 litres in December to 1.7 litres in January. In Wajir, average milk production per household per day decreased by 10 percent from 2 litres in December to 1.8 litres in January. At the same time, average milk production per household per day was below LTA in Kwale, Turkana, Marsabit, Kajiado and Wajir by 37, 36, 28, 26 and 23 percent respectively. The decrease in milk production was attributed to below normal performance of the OND rains which resulted to poor regeneration of forage and low recharge of water sources, increase in trekking distances covered by livestock in search of water and pasture and declining livestock body condition.

**Table 3.0: Milk production, January 2021**

Indicator	Current status			Trend		
	Above LTA	At LTA	Below LTA	Improving	Stable	Worsening
<b>Milk Production</b>	Garissa Kitui Lamu Samburu Makueni Embu Narok Taita Taveta Tana River West Pokot	Isiolo Laikipia Nyeri	Baringo Kwale Turkana Kajiado Kilifi Mandera Marsabit Meru Tharaka Nithi Wajir	Isiolo Kajiado Kitui Makueni Narok Taita Taveta Tharaka Nithi Turkana	Kwale Laikipia Mandera Tana River	Baringo Kilifi Marsabit Meru Wajir Garissa Lamu Samburu Embu West Pokot Nyeri

### ***Cattle prices***

In about 80 percent of the ASAL counties, cattle prices are higher than the three-year average price of cattle for the month of January as shown in Table 4. For instance, in Kajiado, Isiolo, Wajir, Tana River, Baringo and Marsabit the current prices are above LTA by 53, 46, 45, 34, 20 and 17

percent respectively. The favourable cattle prices was attributed to the generally good body condition of cattle in most counties.

However, in Turkana County, the average price of a medium sized bull decreased by 7 percent from Kshs 15,170 in December to Kshs 14,095 in January and was lower than the three-year average price of cattle for January by 17 percent. The decline in cattle prices in Turkana was mainly attributed to the deteriorating body condition of cattle occasioned by elongated trekking distances in search of pasture.

**Table 4.0: Cattle prices, January 2021**

Indicator	Current status			Trend		
	Above LTA	At LTA	Below LTA	Improving	Stable	Worsening
<b>Cattle Prices</b>	Baringo, Makueni Isiolo, Lamu, Kajiado Kilifi, Wajir, Kitui Narok, Tana River Marsabit, Tharaka Nithi, West Pokot Samburu, Meru, Laikipia, Taita Taveta	Embu Garissa Mandera Nyeri	Turkana	Garissa Mandera Meru Tharaka Nithi Makueni Turkana	Baringo Kajiado Kilifi Laikipia Lamu Narok Samburu Taita Taveta Tana River Wajir Nyeri	Isiolo West Pokot Embu Marsabit Kitui

### **Goat prices**

Table 5 summarizes the trend in goat prices in ASAL counties. During the month of January goat prices in nearly all ASAL areas were above average or close to LTA except in Turkana and Kwale counties. The below normal goat prices in the two counties was ascribed to worsening body condition driven by poor availability of pasture and browse.

**Table 5.0: Goat prices, January 2021**

Indicator	Current status			Trend		
	Above LTA	At LTA	Below LTA	Improving	Stable	Worsening
<b>Goat Prices</b>	Garissa Kajiado Lamu Samburu Tharaka Nithi Laikipia Embu Kilifi Narok Isiolo Kitui Meru Taita Taveta Tana River West Pokot Mandera	Baringo Makueni Marsabit Nyeri Wajir	Turkana Kwale	Meru Tana river	Kajiado Lamu Taita Taveta Kilifi Marsabit Embu Samburu Garissa Mandera Turkana Kitui Laikipia Tharaka Nithi	Baringo Isiolo Makueni Narok Nyeri Wajir West Pokot Kwale

### **Crop production**

The average acreage under maize in the marginal agricultural counties such as Makueni, Kilifi, Narok, Meru (Meru North), Taita Taveta, Nyeri (Kieni), Kitui, Kwale, Embu (Mbeere) and Tharaka was 15 - 20 percent below average due to the forecasted below average 2020 October-November-December (OND) rainfall season and limited access to inputs such as certified seed and fertilizer.

Harvesting of pulses like green grams, beans and cowpeas was ongoing while most of the cereal crops such as millet, sorghum and maize were at the grain filling and the drying stage of development with harvesting expected to start from mid-February.

In the Marginal Mixed Farming Zone in Makueni County, maize had wilted in most pockets in Makindu and Nguu ward in Kibwezi West, Masongaleni in Kibwezi East and in Kilome Sub Counties. The poor state of the maize crop was as a result of the delayed onset of the OND rains and the long dry spells experienced in December.

### **Maize prices**

In most counties the price of maize remained stable in January (Table 6). Stabilization in price across counties was as a result of the continued flow of maize from markets in the country coupled with the cross-border imports from Ethiopia, Tanzania and Uganda. Overall, the current maize prices are largely below average with 19 out of the 23 ASAL counties recording prices below LTA. For example, in Tana River, Lamu, Kilifi, Laikipia and Kitui current prices are lower than LTA by 23, 22, 15, 14 and 13 percent respectively. The below average to average maize prices were attributed to good harvest from previous seasons and sustained supply of stock from neighboring counties and cross-border imports.

**Table 6.0: Maize prices, January 2021**

<b>Indicator</b>	<b>Current status</b>			<b>Trend</b>		
	<b>Above LTA</b>	<b>At/close to LTA</b>	<b>Below LTA</b>	<b>Improving</b>	<b>Stable</b>	<b>Worsening</b>
<b>Maize Prices</b>	Garissa Kwale Mandera Marsabit	Baringo Kajiado Makueni Meru Narok Nyeri Samburu Taita Taveta Tharaka Nithi Wajir	Embu Isiolo Lamu West Pokot Kilifi Tana River Turkana Kitui Laikipia	Baringo Meru West Pokot	Garissa Isiolo Mandera Taita Taveta Turkana Wajir Samburu Meru Embu Kajiado Kitui Narok Tharaka Nithi Laikipia Makueni Kwale Nyeri Tana River Lamu Marsabit	Kilifi

### **Access to water**

In about 40 percent of the ASAL counties, distances to water sources have increased compared to the month of December. Some of the largest increase in distances to the main water points for households during the month were in the following counties: Mandera, Kwale, Tana River, Meru (Meru North), Marsabit and Isiolo. In Mandera, for example, average household distance to watering sources increased from 10.5 km in December to 14.4 km in January. In Tana River,

current average return distance from household to the main water sources increased from 3.4 km in December to 5.7 km, rising by 68 percent while in Marsabit distance to water sources from the household increased by 18 percent to 9.1 km from 7.7 km recorded in December. The increase in distances to water sources was largely attributed to drying of open water sources. The trend in distances walked by households to access water is provided in Table 7.

**Table 7.0: Distance from households to main water sources, January 2021**

Indicator	Current status			Trend		
	Above LTA	At LTA	Below LTA	Improving	Stable	Worsening
<b>Distance from households to main water sources</b>	Garissa Kitui Kwale Makueni Mandera Marsabit Samburu Taita Taveta Tana River Wajir		Baringo Embu Isiolo Kajiado Laikipia Lamu Meru north Narok Nyeri Tharaka Nithi West Pokot	Kajiado Laikipia Nyeri Tharaka Nithi Wajir	Baringo Embu Garissa Makueni Narok Taita Taveta	Isiolo Kitui Kwale Lamu Mandera Marsabit Meru North Samburu Tana River West Pokot

The trend in the distances trekked by livestock in search of water is illustrated Table 8. Compared with the previous month, the current trekking distances to water sources from grazing areas increased in 10 ASAL. In addition, access to water for livestock was to some extent more challenging in January compared with normal times as animals had to walk slightly longer distances compared with the usual distances recorded in the 2016 - 2020 long-term average (LTA).

For instance, in Mandera County, the average distance for livestock increased by 35 percent to 14.9 km in January from 11 km in December which is also above the long term mean of 8 km by 86 percent. Similarly in Samburu distances to livestock watering points from grazing areas increased considerably by a proportion of 47 percent from 7.6 km in December to 11.2 km in January while in Isiolo average distances walked by livestock increased by 21 percent from 11.2 to 13.6 km. The increase in trekking distances was attributed to drying of water pans and dams largely because most of the surface water sources were not fully recharged during the short rains season.

**Table 8.0: Distance from livestock grazing areas to main water sources, January 2021**

Indicator	Current status			Trend		
	Above LTA	At LTA	Below LTA	Improving	Stable	Worsening
<b>Distance from livestock grazing areas to main water sources</b>	Isiolo Kwale Makueni Mandera Narok Wajir	Baringo Kitui Laikipia Nyeri Samburu	Embu Garissa Kajiado Lamu Marsabit Meru North Taita Taveta Tana River Tharaka Nithi	Kajiado Tharaka Nithi	Embu Garissa Kitui Marsabit Taita Taveta Wajir West Pokot	Baringo Isiolo Kwale Laikipia Lamu Makueni Mandera Meru North Narok



			West Pokot			Nyeri Samburu Tana River
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### Terms of trade

Table 9 shows the trends in the terms of trade (ToT) in ASAL counties. In January 2021, terms of trade in all counties remained favourable, implying that livestock producers in these counties could purchase quantities of maize above seasonal averages from the sale of a medium size goat. For example, terms of trade were favourable in Marsabit Tana River, Isiolo, Mandera and Samburu counties as households were able to buy more kilogrammes of maize from the sale of a goat compared to the long term average. In Marsabit county, medium sized goat was exchanged with 84 kg of maize against the long-term average of 74 kg. Likewise, households in Tana River were able to buy 105 kg of maize from the sale of a medium sized goat compared to the long term average of 64 kg. The favourable terms of trade were attributed to the prevailing above average goat prices which were driven by good body condition and high demand while maize prices had remained stable during the October 2020 and January 2021 period.

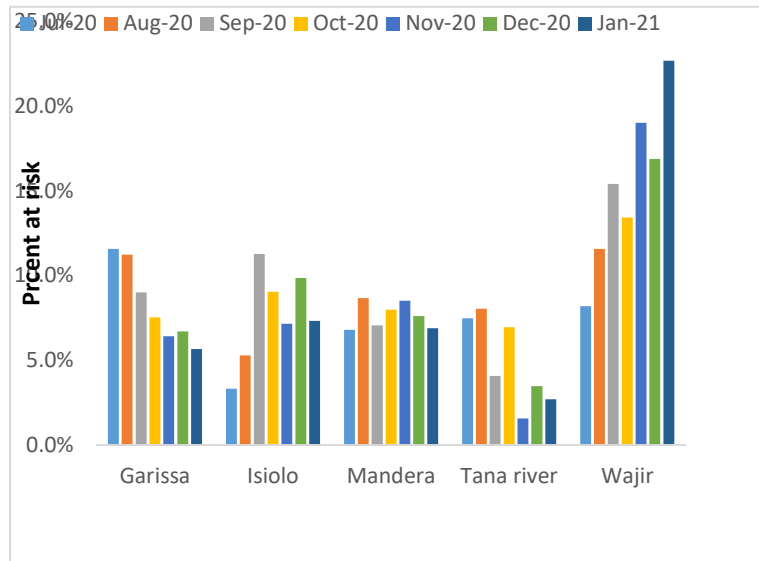
**Table 9.0: Terms of trade (ToT), January 2021**

Indicator	Current status			Trend		
	Above LTA	At LTA	Below LTA	Improving	Stable	Worsening
<b>Terms of trade (ToT)</b>	Kajiado Baringo Kilifi Samburu Wajir Embu Lamu Nyeri Makueni Mandera Marsabit Meru Garissa Isiolo Kitui Kwale Laikipia Tana River West Pokot Taita Taveta Tharaka Nithi	Narok Turkana		Tana River	Embu Isiolo Kajiado Garissa Lamu Marsabit Samburu Narok Tharaka Nithi Kwale Kilifi Laikipia Kitui	Baringo Makueni Mandera Nyeri Taita Taveta Turkana Wajir West Pokot Meru

**Health and nutrition**

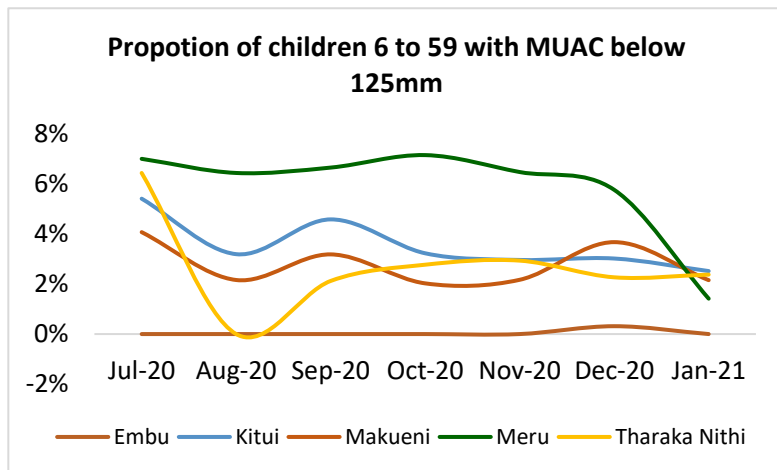
The analysis of MUAC data in different ASAL counties showed mixed trends. For example, the proportion of children 6-59 months with MUAC less than 125 mm was on a downward trend from July 2020 to January 2021 in Garissa (Figure 3) while in Wajir the proportion was on an upward trajectory in the months to January 2021, indicating a worsening situation.

The main drivers of acute malnutrition in the Garissa, Isiolo, Mandera, Tana River and Wajir are food insecurity, human diseases, poor infant and young child feeding practices.



**Figure 3: Proportion of children 6 to 59 with MUAC below 125mm**

Marsabit had 10.50 percent while Samburu had above 25 percent of children who were malnourished. According to mother MUAC results in Turkana, the proportion of malnourished children based on mid upper arm circumference (colour MUAC) was 6.1 percent. This is a deterioration from 3.5 percent recorded earlier, an indicative deterioration of household food stress across the OND season following the poor performance of the short rains. The high malnutrition rates are possibly influenced by poor child maternal care practices coupled with poor health care seeking behaviour attributed to fear of COVID-19.



**Figure 4: Proportion of children 6-59 with MUAC < 125mm**

In Kitui, Embu (Mbeere), Makueni, Meru (Meru North) and Tharaka, the proportion of children aged 6-59 months with MUAC less than 125 mm reduced between November 2020 and January 2021 (Figure 4) an indication of improvement in the general nutrition situation. It is projected that the situation will remain stable between March and April 2021.

## 1.2 Drought phase classification

Table 10 shows the status and trend in drought phase classification in the 23 ASAL counties. Although majority of the counties are still in the normal drought phase, compared to the situation in December the drought status in most ASAL counties deteriorated in January.

Currently the drought status is categorized as follows:

- Normal, 16 counties;
- Alert, 7 counties.

In terms of trend, the situation is as follows:

- Worsening in 15 counties;
- Stable in 6 counties;
- Improving in 2 counties.

The declining trend is attributed to the poor rainfall performance observed during the October-November-December (OND) 2020 short rains season in the affected areas. In addition the sunny, dry and hot weather conditions that prevailed over most parts of the country in January 2021 also worsened the situation because the higher than average daytime temperatures experienced in many ASAL counties led to high rates of evaporation and evapotranspiration which caused faster reduction in water levels in open water sources and from the soil surface hence resulting in rapid drying up of dams and water pans, and wilting in pasture and crops.

**Table 10.0: Drought phase classification, January 2021**

<b>Drought status</b>	<b>Trend</b>		
	<b>Improving</b>	<b>Stable</b>	<b>Worsening</b>
<b>Normal</b>	Embu (Mbeere) Kwale	Kajiado, Makueni, Meru (Meru North), Narok, Taita Taveta, Tharaka Nithi (Tharaka)	Garissa, Lamu, Tana River Samburu, West Pokot, Kitui, Laikipia, Nyeri (Kieni)
<b>Alert</b>			Baringo, Isiolo, Kilifi, Marsabit, Mandera, Wajir, Turkana
<b>Alarm</b>			
<b>Emergency</b>			
<b>Recovery</b>			

### **3.0 Recommendations**

- Provision of food assistance and scaling up of cash transfers targeting food insecure households.
- Treatment and vaccination against emerging livestock diseases.
- Improvement of marketing infrastructure including provision of hand washing facilities in line with MoH protocols on COVID-19 prevention in order to enhance smooth market operations.
- Provision of drought tolerant seeds and other farm inputs and tools to farmers and agro pastoralists in preparation for the MAM season.
- Repair of broken-down water facilities such as strategic boreholes at the same time installing water harvesting structures in strategic institutions.
- Provision of water treatment chemicals for communities using open surface water sources.
- Sensitization of good hygiene including hand washing, social distancing and conduct awareness campaigns on COVID-19 prevention.
- Continuous engagement and capacity building for mothers and caregivers on use of Family MUAC in order to improve the quality of nutrition data.
- Scale up mass screening and integrated medical outreaches targeting malnutrition hotspots in all ASAL counties.
- Conduct inter-county and cross border peace dialogue and conflict resolution meetings to facilitate harmony and resource sharing.

### Annex 1.0 Vegetation Condition Index (VCI-3 month) as at 25<sup>th</sup> January 2020

ADMINISTRATIVE UNIT		VEGETATION GREENNESS		DROUGHT CATEGORIES/REMARKS		
COUNTY	Sub County	VCI-3 month as at 28 <sup>th</sup> Dec 2020	VCI-3 month as at 25 <sup>th</sup> Jan 2021	Colour	VCI values (3-month)	Drought Category
					≥50	Vegetation greenness above normal
					>=35 - <50	Normal vegetation greenness
					>=20 - <35	Moderate vegetation deficit
					>=10 - <20	Severe vegetation deficit
					<10	Extreme vegetation deficit
BARINGO	County	83.07	67.76	In the month of January, the entire county is in above normal vegetation greenness, the situation is stable compared to the previous month of November. However, there is decline trend in VCI index attributed to gradual caseation on OND short rain season		
	Central	86.61	75.99			
	Eldama	77.55	69.55			
	Mogotio	86.27	67.6			
	North	85.49	68.6			
	South	75.29	59.81			
	Tiaty	84.88	68.88			
MANDERA	County	44.15	32.03	The county is in normal vegetation greenness in the month of January compared to the previous month of December. The situation is deteriorating at alarming rate with Mandera East already in Moderate vegetation deficit		
	Banissa	52.51	36.58			
	M East	31.54	21.01			
	Lafey	35.68	25.14			
	M North	49.6	36.12			
	M South	42.76	33.01			
	M West	45.52	32.88			
TURKANA	County	81.57	61.81	The county is in stability in VCI for the county and all its sub counties having recorded above normal vegetation greenness in the month of December except for Turkana East.		
	T Central	67.32	57.61			
	T. East	61.39	48.38			
	T. Loima	87.37	68.31			
	T. North	78.4	55.28			
	T. South	75.87	61.56			
MARSABIT	County	37.11	28.15	The county and its sub counties showed a deteriorating VCI condition from the normal vegetation greenness to moderate vegetation deficit in the month of January compared with the previous month of December. Saku sub county deteriorated to normal from the previous above normal.		
	Laisaimis	41.72	29.77			
	Moyale	34.8	30.59			
	N. Horr	34.38	25.43			
	Saku	50.52	49.85			
WAJIR	County	32.44	28.02	The county remained in Moderate vegetation deficit. Serious worsening and rapid decrease in VCI condition across the county and all sub counties in the month under review. Wajir Eldas and Wajir West are worst as it stands at extreme vegetation deficit.		
	W East	39.96	34.74			
	W. Eldas	17.11	12.1			
	W. North	45.68	34.99			
	W. South	33.54	32.67			
	W. Tarbaj	38.39	31.5			
	W West	14.05	10.99			
SAMBURU	County	57.84	45.54			

	S East	51.62	39.04	The entire county and its sub counties deteriorated to normal from above normal vegetation greenness .Samburu west remained above normal.		
	S. North	60.78	49.01			
	S. West	73.25	60.26			
<b>ADMINISTRATIVE UNIT</b>				<b>DROUGHT CATEGORIES/REMARKS</b>		
<b>COUNTY</b>	<b>Sub County</b>	<b>VCI-3 month as at 28<sup>th</sup> Dec 2020</b>	<b>VCI-3 month as at 25<sup>th</sup> Jan 2021</b>	<b>Colour</b>	<b>VCI values (3-month)</b>	<b>Drought Category</b>
					≥50	Vegetation greenness above normal
					>=35 - <50	Normal vegetation greenness
					>=20 - <35	Moderate vegetation deficit
					>=10 - <20	Severe vegetation deficit
					<10	Extreme vegetation deficit
<b>GARISSA</b>	<b>County</b>	41.82	38.47	The county is in Normal vegetation greenness. The situation is expected to deteriorate in the coming month. Balambala recorded a moderate vegetation deficit when compared to the month of December.		
	Balambala	38.81	34.76			
	Daadab	39.09	35.56			
	Fafi	40.88	39.22			
	Ijara	49.29	45.21			
	Lagdera	40.88	35.11			
	Dujis	32.44	27.58			
<b>ISIOLO</b>	<b>County</b>	35.11	29.17	Major decrease in the vegetation greenness condition with entire county and its sub-counties falling in the moderate vegetation deficit. January showed a decrease when compared to the previous month of December. This is attributed to the early cessation of the OND rains.		
	I. North	29.88	22.56			
	I. South	43.1	39.27			
<b>TANA RIVER</b>	<b>County</b>	43.41	39.56	The county remained at normal vegetation greenness condition. This situation is worsening in January as compared to last month of December.		
	Bura	31.54	29.17			
	Galole	44.11	39.24			
	Garsen	53.05	48.59			
<b>KAJIADO</b>	<b>County</b>	57.08	50.08	Stability noted across the county with all sub counties remaining at above normal vegetation greenness conditions. Kajiado central and West recorded normal vegetation.		
	K. Central	52.2	47.85			
	K. East	56.62	54.74			
	K. North	62.27	63.22			
	K. South	63.81	59.73			
	K. West	54.45	41.19			
<b>LAIKIPIA</b>	<b>County</b>	66.31	54.39	The county and its sub counties remained stable thus above normal vegetation greenness. This condition is expected to worsen as Laikipia east recorded normal.		
	L. East	52.85	43.15			
	L. North	67.79	55.49			
	L. West	70.02	57.77			
<b>THARAKA NITHI</b>	<b>County</b>	50.41	59.07	The county is in normal vegetation greenness. The situation is improving when compared to the previous month of December. Tharaka has showed an improvement in the when this month is compared to last month of December.		
	Chuka	63.93	72.88			
	Maara	65.31	73.45			
	Tharaka	40.55	49.27			
<b>WEST POKOT</b>	<b>County</b>	82.13	66.79	The vegetation greenness is in above normal condition across the county. The situation is in stable condition when the previous month of December is considered. The attribution factor is steady and continuous rainfall performance in this region.		
	Kacheliba	78.23	61.56			
	Kapenguria	84.49	69.92			
	Pokot South	81.7	72.28			
	Sigor	87.49	70.43			
<b>EMBU</b>	<b>County</b>	60.11	70.48			

	Manyatta	61.45	70.48	Improvement in vegetation condition in the month of January across all the sub-counties with vegetation greenness above normal in all parts of the county. When compared to the month of December. This is due to late onset of rainfall in this area hence prolonged time as well.		
	Mbeere North	55.4	65.51			
	Mbeere South	60.75	70.36			
	Runyenjes	66.98	77.7			
<b>ADMINISTRATIVE UNIT</b>						
<b>COUNTY</b>	<b>Sub County</b>	<b>VCI-3 month as at 28<sup>th</sup> Dec 2020</b>	<b>VCI-3 month as at 25<sup>th</sup> Jan 2021</b>	<b>Colour</b>	<b>VCI values (3-month)</b>	<b>Drought Category</b>
					≥50	Vegetation greenness above normal
					>=35 - <50	Normal vegetation greenness
					>=20 - <35	Moderate vegetation deficit
					>=10 - <20	Severe vegetation deficit
					<10	Extreme vegetation deficit
<b>KITUI</b>	<b>County</b>	44.04	52.16	The county is improving in normal vegetation greenness condition. Mwingi Central has also improved to above normal from moderate vegetation deficit when months of January and December are compared.		
	Kitui Central	59.63	70.41			
	Kitui East	43.24	52.22			
	Mwingi Central	32.01	44.07			
	Mwingi North	37.28	42.33			
	Mwingi West	50.05	61.49			
	Kitui Rural	55.93	65.52			
	Kitui South	47.6	54.63			
	Kitui West	56.3	65.15			
<b>MAKUENI</b>	<b>County</b>	61.71	71.86	There has been a significant stability with the county above normal vegetation greenness conditions.		
	Kaiti	76.16	86.87			
	Kibwezi East	57.58	73.11			
	Kibwezi West	60.41	71.31			
	Kilome	65.76	71.31			
	Makueni	59.43	65.41			
	Mbooni	68.33	76.05			
<b>MERU</b>	<b>County</b>	62.04	63.03	The vegetation greenness is above normal across the county and its Sub-counties except for Tigania West. The entire county has a stable vegetation greenness when the previous month of December is compared with the current month of January.		
	Buuri	65.67	68.07			
	Central Imenti	61.55	66.04			
	Igembe Central	67.3	65.64			
	Igembe North	67.01	58.47			
	Igembe South	63.82	63.98			
	North Imenti	52.23	58.44			
	South Imenti	65.91	73.37			
	Tigania East	50.35	50.24			
	Tigania West	45.26	57.63			
<b>NYERI</b>	<b>County</b>	68.17	72.65	The county is in a stable state when vegetation greenness is compared between the months of December and January. All the sub-counties recorded above normal vegetation greenness condition and that there has been imminent improvement between the two months.		
	Kieni	66.4	66.75			
	Mathira	65.92	74.43			
	Mukurweini	75.85	80.35			
	Town	71.05	83.63			
	Othaya	72.18	84.93			

	Tetu	70.75	75.6			
KILIFI	County	50.19	45.65	Improvement in vegetation condition across all the county with vegetation greenness above normal parts of the county.		
	Ganze	48.11	47.95			
	Kaloleni	56.57	52.3			
	Magarini	47.96	42.61			
	Malindi	61.45	50.01			
	Kilifi-North	64.15	55.15			
	Rabai	62.89	55.03			
	Kilifi-South	42.52	39.46			
KWALE	County	57.14	64.28	Above Normal vegetation greenness noted across the entire county which is a big improvement when month under review is compared to the previous month of December.		
	Kinango	55.02	61.91			
	Lungalunga	60.06	68.29			
	Matuga	61.46	67.06			
	Msambweni	57.19	67.06			
LAMU	County	60.1	50.61	Positive Stability in both county and sub counties remaining at above normal vegetation greenness condition. The situation improved in terms of VCI index due to performance of OND rains. Lamu east has slightly deteriorated to normal.		
	Lamu East	61.71	50.63			
	Lamu West	59.15	49.89			
<b>ADMINISTRATIVE UNIT</b>		<b>VEGETATION GREENNESS</b>		<b>DROUGHT CATEGORIES/REMARKS</b>		
<b>COUNTY</b>	<b>Sub County</b>	<b>VCI-3 month as at 28<sup>th</sup> Dec 2020</b>	<b>VCI-3 month as at 25<sup>th</sup> Jan 2021</b>	<b>Colour</b>	<b>VCI values (3-month)</b>	<b>Drought Category</b>
					≥50	Vegetation greenness above normal
					>=35 - <50	Normal vegetation greenness
					>=20 - <35	Moderate vegetation deficit
					>=10 - <20	Severe vegetation deficit
					<10	Extreme vegetation deficit
TAITA TAVETA	County	53.89	64.17	Stability in the vegetation greenness condition in the above normal to normal category from Normal vegetation greenness recorded in the previous month of December. The situation could be due to good OND rainfall performance		
	Mwatate	49.6	60.05			
	Taveta	57.33	59.84			
	Voi	53.02	66.12			
	Wundanyi	61.68	76.64			
NAROK	County	70.83	67.88	Stability in the vegetation greenness was noted across the county and its entire sub-counties. The situation could be stable due to good rainfall performance within the entire county and the continuity period is still good.		
	Narok-East	61.79	52.98			
	Emurua Dikirr	92.71	93.19			
	Kilgoris	83.93	82.41			
	Narok-North	67.2	69.41			
	Narok-South	62.05	56.41			
	Narok-West	76.87	75.33			



## **Annex 2.0 Summary of the drought early warning system**

Each month, field monitors collect data in a number of sentinel sites across 23 arid and semi-arid counties. This is then complemented by information from other sources, particularly satellite data. For all indicators, the current value is compared with the long-term average for the time of year in order to establish whether it falls within seasonal norms.

Four types of indicator are monitored, capturing different kinds of impact (Table 12). The combined analysis from all four indicator groups then determines the particular drought phase: normal, alert, alarm, emergency or recovery (Figure 2). Identifying the correct drought phase helps to guide the most appropriate response for that stage in the drought cycle.

**Table 12.0: Indicators monitored by the drought early warning system**

<b>Type of indicator</b>	<b>Examples of indicators monitored</b>	<b>Types of impact</b>
Biophysical	Rainfall data Vegetation condition State of water sources	Environmental
Production	Livestock body condition Milk production Livestock migration Livestock mortality Crop production	Livestock production Crop production
Access	Terms of trade (meat/maize) Milk consumption Distances to water	Markets Access to food and water
Utilisation	MUAC (Mid-Upper Arm Circumference) Coping strategies	Nutrition Coping strategies

**Figure 2.0: Drought Phase Classification**

