



**NATIONAL DROUGHT MANAGEMENT AUTHORITY**

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## **National Drought Early Warning Bulletin**

**September 2021**

## Drought indicators

### Rainfall Performance

During the month of August 2021, most ASAL counties remained generally dry and rainfall received was below the long term average of August 2021. Most parts of ASAL counties including; Turkana, Mandera, Wajir, Garissa, Marsabit, Tana River, Makueni, Kitui, Kajiado, Lamu, Kilifi, Kwale, Nyeri, Isiolo, Meru North and Taita Taveta received less than 20mm of rainfall totals except the highland areas of rift valley including Baringo, Laikipia, Samburu, Narok and West Pokot which received between 51-100 mm of total rainfall. Figure 1 indicates observed rainfall totals during the month of August 2021.

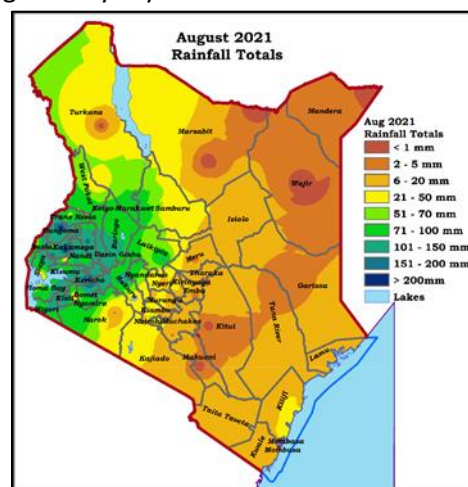


Figure 1. Rainfall performance

### Rainfall Forecast

According to Kenya Metrological Department (KMD), several parts of the country will generally remain

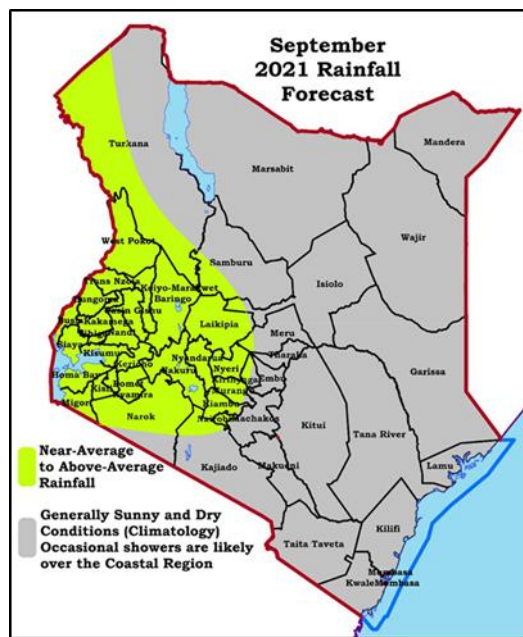


Figure 2. August Rainfall forecast

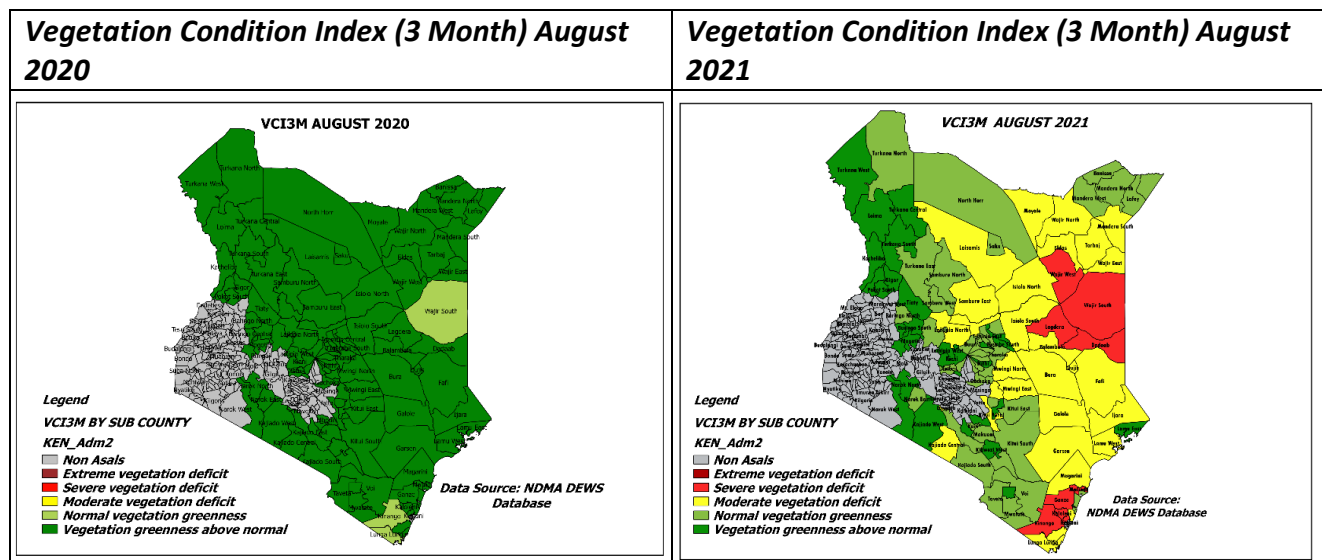
dry and sunny during the month of September 2021. Counties in Northwestern Region including Turkana, West Pokot and Samburu are likely to experience sunny and dry weather conditions throughout the month. However, areas bordering Uganda and Southern Sudan are likely to experience occasional rainfall during the first two weeks of the month. The expected total rainfall amount is likely to be slightly above the long-term average amounts for September. Counties in the Coastal strip including Tana River, Kilifi, Lamu and Kwale are likely to experience generally dry weather conditions with occasional light morning showers. The expected total rainfall amount is likely to be below the long-term average for the month of September. The Highlands East of the Rift Valley counties including Nyeri, Meru, Embu and Tharaka Nithi are likely to experience sunny and dry weather conditions for most of the month. However, occasional afternoon showers and cloudy conditions in the mornings are likely, especially during the first three weeks. The expected total rainfall

amount is likely to be near the long-term average for September while North Eastern Kenya and Southeastern Lowlands including Mandera, Marsabit, Wajir, Garissa, Isiolo, Machakos, Makueni, Kitui, Taita Taveta and parts of Kajiado are likely are likely to experience generally sunny and dry weather conditions throughout the month.

**Vegetation condition**

Figure 3 matches the Vegetation Condition Index (VCI) in August 2020 with that in August 2021. When compared to similar period last year and the long-term average, the current condition of vegetation is considerably below that of August 2020.

**Figure 3: Comparison of Vegetation Condition Index (VCI), August 2020 and August 2021**



As at the end of August 2021, counties experiencing vegetation deficit as per Vegetation Condition Index (VCI) included Garissa, Isiolo, Kilifi, Kwale, Lamu, Samburu, Tana River and Wajir. The eight counties experienced moderate vegetation deficit implying that the VCI values recorded in August 2021 were below normal which indicates that the rains received so far were inadequate and had not brought about vegetation regeneration to the usual ranges for the period in the eight counties.

Vegetation Condition Index (VCI) status as at the end of August 2021 is summarized in Table 1. At sub county level, Garissa (Lagdera, Daadab) Kilifi (Ganze, Kaloleni, Malindi, Rabai) Kwale (Kinango) Wajir (Wajir-South, Wajir-West) recorded the lowest VCI values with the nine (9) sub counties currently falling in the extreme deficit band which is attributed to the poor rains received in MAM season 2021 in those particular areas. Generally, the negative VCI trends point to poor regeneration of pasture and browse during the month of August 2021.

**Table 1: Vegetation Condition Index (VCI), August 2021**

Category	County	Sub Counties (No)
<b>Extreme</b>		
<b>Severe vegetation deficit</b>		<b>(9)</b> Garissa (Lagdera, Daadab) Kilifi (Ganze, Kaloleni, Malindi, Rabai) Kwale (Kinango) Wajir (Wajir-South, Wajir-West)
<b>Moderate vegetation deficit</b>	<b>(8)</b> Garissa, Isiolo, Kilifi, Kwale, Lamu, Samburu, Tana River, Wajir	<b>(29)</b> Garissa (Balambala, Fafi, Ijara, Township) Isiolo (Isiolo North, Isiolo South) Kajiado (Kajiado Central, Kajiado-North) Kilifi (Magarini, Kilifi-South) Kitui (Mwingi central, Mwingi North, Mwingi West, Kitui Rural) Kwale (Lungalunga, Matuga, Msambweni) Laikipia (Laikipia North) Lamu (Lamu West) Mandera (Mandera South) Marsabit (Laisaimis, Moyale) Samburu (Samburu east) Tana River (Bura, Galole, Garsen) Wajir (Wajir East, Eldas, Wajir North, Tarbaj)
<b>Normal vegetation greenness</b>	<b>(10)</b> Embu, Kajiado, Kitui, Laikipia, Mandera, Marsabit, Meru, Nyeri, Taita Taveta, Tharaka Nithi,	<b>(43)</b> Embu (Manyata, Mbeere North, Mbeere South, Runyenjes) Kajiado (Kajiado-East, Kajiado-South) Kilifi (Kilifi-North) Kitui (Kitui East, Kitui South, Kitui West) Laikipia (Laikipia East) Makueni (Kaiti, Kibwezi East, Makueni) Mandera (Banissa, Mandera East, Lafey, Mandera North, Mandera West) Marsabit (North Horr, Saku) Meru (Buuri, Central Imenti, Igembe North, South Imenti, Tigania East, Tigania west) Narok (Narok-East) Nyeri (Mathira, Othaya, Tetu, Township) Samburu (Samburu North, Samburu west) Taita Taveta (Mwatate, Taveta, Voi) Tharaka Nithi (Maara, Tharaka) Turkana(Turkana East, Turkana North)
<b>Vegetation greenness Above normal</b>	<b>(5)</b> Baringo, Makueni, Narok, Turkana, West Pokot	<b>(32)</b> Baringo (Baringo Central, Mogotio, Baringo North, Baringo South, Tiaty) Kajiado (Kajiado-West) Kitui (Kitui Central) Laikipia (Laikipia West) Lamu (Lamu East,) Makueni (Kibwezi West, Kilome, Mbooni) Meru (Igembe Central, Igembe South, North Imenti) Narok (Emurua Dikirr, Kilgoris, Narok-North, Narok South, Narok-West) Nyeri (Kieni, Mukurweini) Taita Taveta (Wundanyi) Tharaka Nithi (Chuka,) Turkana (Turkana Central, Loima, Turkana South, Turkana West) West Pokot (Kacheliba, Kapenguria, West-Pokot South, Sigor)

### ***Livestock production***

The current livestock body condition is stable compared to previous month. However, pasture and browse quantity and quality is deteriorating. Overall, the current body condition of most livestock is below normal in comparison to similar periods during a normal year. Consequently, most counties reported livestock body condition as fair to poor as shown in Table 3.

### ***Pasture and browse condition***

The state of pasture and browse in most of the arid and semi-arid counties was generally in poor and fair to poor conditions except in Lamu, Narok and West Pokot that reported fair to good pasture condition as shown in Table 2. The current pasture and browse condition is deteriorating as compared to the previous month.

**Table 2.0: Pasture and browse condition, August 2021**

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

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

The current livestock body condition is stable compared to previous month even though pasture and browse quantity and quality is deteriorating. Overall, the current body condition of most livestock is below normal in comparison to similar periods during a normal year. Consequently, most counties reported livestock body condition as fair to poor as shown in Table 3.

**Table 3.0: Livestock body condition, August 2021**

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

**Milk production**

Milk production was below average and generally on worsening trend as compared to the previous month. The below normal milk production is attributed to poor rainfall performance for the 2021 long rains season. The current milk production status is below average as compared to normal year. Milk production trends in the 23 ASAL counties is presented in table 4.0.

**Table 4.0: Milk production, August 2021**

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

			Tana River Tharaka Nithi Turkana Wajir			Wajir
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### **Cattle prices**

In majority of the county’s cattle prices are stable and above LTA owing mainly to the fact that the state of cattle body condition is still fair as illustrated in Table 5. The prevailing price is higher than the three-year average price of cattle for the month of August in about 52 percent of the ASAL counties as compared to 60 percent during the previous month as shown in Table 5.

**Table 5.0: Cattle prices, August 2021**

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

### **Goat prices**

Table 6 summarizes the trends in goat prices in ASAL counties. During the month of August, goat prices in majority of the ASAL counties were mostly above average or close to LTA except in Turkana, Meru, Wajir, Garissa, Marsabit and Nyeri counties. The goat prices are stable but worsening as compared to the previous month due to deteriorating in livestock body condition.

**Table 6.0: Goat prices, August 2021**

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

**Crop production**

- March to May (MAM) long rains season performed poorly in the marginal agricultural areas and thus late planted maize crops were in fair to poor condition with farm army worm infestation in counties like Kilifi while the harvested crops were below average as compared to expected production during normal season in marginal agriculture counties like Nyeri (Kieni), Meru North, Tharaka Nithi, Taita Taveta and Kwale counties. Farmers are being advised to plant early maturing crops.

**Maize prices**

In most counties the price of maize remained stable in August as compared to the previous month. As demonstrated in Table 7, the current maize prices are above/close to LTA and on increasing trend as compared to the previous month. The increase has disadvantaged pastoralists terms of trade and thus need for close monitoring as the season progress especially in Garissa, Isiolo, Kajiado, Mandera, Marsabit, Nyeri and Taita taveta counties.

**Table 7.0: Maize prices, August 2021**

<i>Indicator</i>	<i>Current status</i>			<i>Trend</i>		
	<i>Above LTA</i>	<i>At/close to LTA</i>	<i>Below LTA</i>	<i>Improving</i>	<i>Stable</i>	<i>Worsening</i>



<b>Maize Prices</b>	Garissa	Baringo	Embu	Garissa	Baringo	Nyeri
	Isiolo	Kwale	Kilifi	Tana River	Embu	Tharaka
	Kajiado	Laikipia	Kitui		Isiolo	Nithi
	Mandera	Lamu	Meru		Kajiado	Wajir
	Marsabit	Makueni	Tana River		Kilifi	
	Nyeri	Narok	Tharaka		Kitui	
	Taita Taveta	Samburu	Nithi		Kwale	
		Turkana	Wajir		Laikipia	
		West Pokot			Lamu	
					Makueni	
					Mandera	
					Marsabit	
					Meru	
				Narok		
				Samburu		
				Taita		
				Taveta		
				Turkana		
				West Pokot		

### Access to water for households

In comparison to the long term average, 17 counties distances to water for households is currently above the LTA. In comparison with the previous month, there is major increase in distance to household water source. The increase in average distances to water points for households is due to the depletion of the water availability due to the minimal rains. However, the delayed short rains onset and the poor performance of MAM season is the reason behind the above LTA trekking distances. The trend in distances walked by households to access water is provided in Table 8.

**Table 8.0: Distance from households to main water sources, August 2021.**

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

	Samburu Taita Taveta Turkana Wajir West Pokot					Turkana Wajir West Pokot
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**Access to water for livestock**

The trend in the distance walked by livestock in search of water is presented in Table 9. Compared with the previous month, the current trekking distance to water source from grazing areas is stable and deteriorating across the counties. 80 percent of counties livestock trekking distance to water point is above LTA in ASALs with most counties pointing to worsening trend.

**Table 9.0: Distance from livestock grazing area to main water sources, August 2021**

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

**Terms of trade**

Table 10 shows the trends in terms of trade (ToT) between the relative price of goats and maize in ASAL counties. The ToT maintains a stable trend compared to the previous month however it is on worsening trend as compared to the previous month. The worsening trend is as result of deteriorating livestock body condition in relation to increase in maize price.

**Table 10.0: Terms of trade, August 2021**

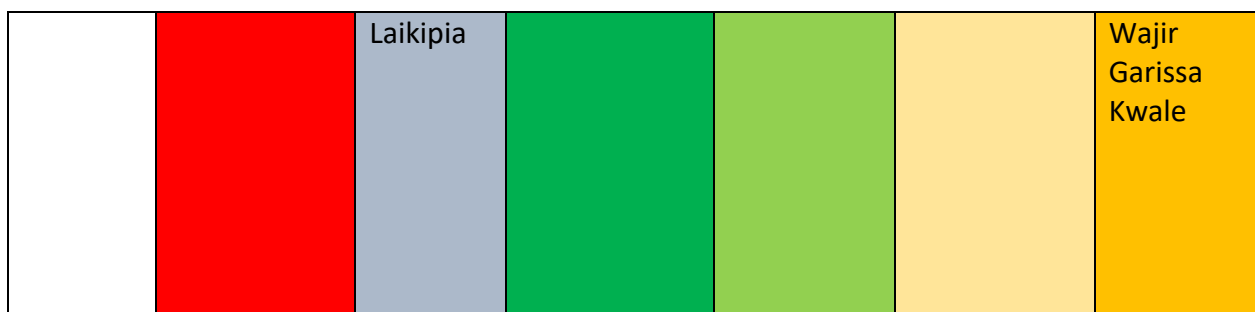
<i>Indicator</i>	<i>Current status</i>			<i>Trend</i>		
	<i>Above LTA</i>	<i>At LTA</i>	<i>Below LTA</i>	<i>Improving</i>	<i>Stable</i>	<i>Worsening</i>
<b>Terms of trade (ToT)</b>	Kajiado Kilifi Lamu Makueni Narok Tana-River Tharaka-Nithi	Baringo Embu Isiolo Kitui Kwale Laikipia Mandera Samburu Taita-Taveta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

**Health and nutrition**

Table 11 shows the trend in the proportion of children at risk of malnutrition (MUAC) across the ASAL counties. As compared to the previous month, the trend of MUAC has been on a visible worsening trend with the following counties namely; Baringo, Garissa, Narok, Mandera, Tana River, Marsabit, Samburu and Nyeri having MUAC values above long term average. The remaining counties including Isiolo, Kilifi, Lamu, Makueni, Meru North, Taita Taveta, Wajir, Embu, Kwale and Laikipia were close to LTA. The observed above long term negative trend in malnutrition of the eight counties was attributed to reduced milk consumption owing to decrease in milk production and fewer number of integrated health outreaches delivering essential nutrition services.

**Table 11.0: Children at risk of malnutrition (MUAC), August 2021**

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



### Drought phase classification

Table 12 sums up the trends in drought phase classification as at end of August 2021. On the basis of the range of indicators monitored above, twelve (12) counties; Embu (Mbeere), Meru-North, Garissa, Kilifi, Kitui, Kwale, Laikipia, Lamu, Makueni, Samburu, Tana-River, and Turkana are in the alert drought phase and thus seven (7) counties including; Baringo, Narok, Tharaka-Nithi, West-Pokot, Kajiado, Nyeri (Kieni), and Taita-Taveta are in Normal drought phase whereas Marsabit, Wajir, Isiolo and Mandera are at an alarm phase. During the month under review, none of the counties reported to the improving trend, eight (8) counties recorded stable trend while the remaining fifteen (15) counties reported a worsening trend. The deteriorating display is as poor performance of 2021 long rains season.

**Table 12.0: Drought phase classification, August 2021**

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

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## **Recommendations**

### **Food and safety nets**

- Provision of food assistance and scaling up of cash transfers targeting households which are currently food insecure as a result of the prevailing drought stress.

### **Livestock sector**

- Provision of livestock feeds and supplements.
- Treatment and vaccination against emerging livestock diseases.

### **Water sector**

- Support water trucking interventions.
- Rehabilitation and maintenance of water facilities.
- Provision of fuel subsidies to motorized boreholes
- Procurement and distribution of water storage tanks.

### **Health and nutrition sector**

- Support on hygiene and sanitation promotions
- Provisions for severe acute malnutrition - Ready to Use Therapeutic Food (RUTF).
- Supplies for moderate acute malnutrition - Ready to Use Supplementary Food (RUSF).

### **Education sector**

- Enhance hygiene promotion in learning institutions.
- Provision of food to subsidize school fees in boarding secondary schools.






### **Peace and security sector**

- Facilitating intra/inter communities peace dialogues and resource use agreements.
- Coordination of peace and security activities in conflict prone counties.

### **Coordination**

- Support County Steering Groups (CSGs) to effectively coordinate drought response activities.






**Table 13: Vegetation Condition Index (VCI-3 month) as at 30<sup>th</sup> August 2021**

ADMINISTRATIVE UNIT		VEGETATION GREENNESS		DROUGHT CATEGORIES/REMARKS		
COUNTY	Sub County	VCI-3 month as at 26 <sup>th</sup> July 2021	VCI-3 month as at 30 <sup>th</sup> August 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
<b>BARINGO</b>	<b>County</b>	54.31	58.42	The entire county and its sub counties recorded above normal vegetation greenness in the month of August except Eldama which was at normal greenness.		
	Central	60.01	60.94			
	Eldama Ravine	52.35	42.28			
	Mogotio	45.08	56.2			
	North	62.51	65.12			
	South	53.82	61.2			
	Tiaty	53.57	58.54			
<b>MANDERA</b>	<b>County</b>	40.9	39.3	The county and its sub counties are in Normal vegetation greenness in the month of August which is a stable trend except Mandera South which worsened to a moderate vegetation deficit. The current month VCI trend is similar to the previous month of July.		
	Banissa	44.29	40.8			
	M East	42.61	39.49			
	Lafey	41.94	41.53			
	M North	48.65	44.43			
	M South	36.1	34.22			
	M West	34.45	36.45			
<b>TURKANA</b>	<b>County</b>	57.8	53.23	There is stability in VCI for the county as five of its sub counties recorded Above Normal vegetation greenness in the month of August. Turkana North and East recorded Normal vegetation greenness.		
	T Central	71.3	78.18			
	T. East	46.86	43.08			

	T. Loima	72.88	61.9			
	T. North	44.86	43.38			
	T. South	68.13	57.39			
	T. West	62.56	56.15			
<b>MARSABIT</b>	<b>County</b>	34.64	38.82	The county improved from moderate vegetation deficit to normal vegetation greenness except for Moyale and Laisamis which remained stable at moderate vegetation deficit.		
	Laisamis	29.96	34.31			
	Moyale	31.09	34.34			
	N. Horr	37.72	41.97			
	Saku	42.91	48.44			
<b>WAJIR</b>	<b>County</b>	27.22	23.78	The situation deteriorated in the county at moderate vegetation deficit. Wajir South and West worsened from moderate vegetation deficit to severe vegetation deficit during the month under review.		
	W East	29.27	23.68			
	W. Eldas	25.25	28.52			
	W. North	30.76	34.27			
	W. South	24.23	16.92			
	W. Tarbaj	33.86	30.35			
	W West	24.95	19.36			
<b>SAMBURU</b>	<b>County</b>	38.69	34.59	Worsening in vegetation from normal vegetation greenness in the previous month of July to Moderate vegetation deficit in the month under review. Samburu East remained in Moderate vegetation deficit band.		
	S East	28.61	26.54			
	S. North	49.03	41.21			
	S. West	44.04	44.63			
<b>ADMINISTRATIVE UNIT</b>		<b>DROUGHT CATEGORIES/REMARKS</b>				
<b>COUNTY</b>	<b>Sub County</b>	<b>VCI-3 month as at 26<sup>th</sup> July 2021</b>	<b>VCI-3 month as at 30<sup>th</sup> August 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>	25.91	21.16	The county and its Sub counties remained in Moderate vegetation deficit band with Daadab and Ijara sub-county worsening from moderate vegetation deficit to severe vegetation deficit band and from normal vegetation greenness to moderate vegetation deficit respectively.
	Balambala	23.42	21.17	
	Daadab	20.85	15.29	
	Fafi	24.85	21.15	
	Ijara	43.02	29.44	
	Lagdera	14.24	17.28	
	Dujis	23.79	20.41	
<b>ISIOLO</b>	<b>County</b>	18.97	23.09	There was improvement in the entire county's vegetation condition from severe vegetation deficit to moderate vegetation deficit in comparison to the previous month of July.
	I. North	19.76	23.94	
	I. South	17.76	21.79	
<b>TANA RIVER</b>	<b>County</b>	27.5	29.23	The county and its sub counties remained at Moderate vegetation condition in the month of August.
	Bura	28.08	28.36	
	Galole	22.58	25.66	
	Garsen	30.09	32.21	
<b>KAJIADO</b>	<b>County</b>	47.38	45.68	Stable trend noted across the county with sub counties with a worsening trend in Kajiado Central sub-county from normal vegetation greenness to moderate vegetation deficit in August.
	K. Central	39.23	32.92	
	K. East	43.33	41.26	
	K. North	45.34	33.6	
	K. South	44.21	48.55	
	K. West	56.34	52.74	
<b>LAIKIPIA</b>	<b>County</b>	38.05	37.62	The sub-counties remained stable in the VCI trend in comparison to the previous months. However, an improvement was noted in Laikipia West whose value shifted from Normal vegetation greenness to Above Normal.
	L. East	44.73	36.94	
	L. North	33.18	30.25	
	L. West	43.95	51.75	
<b>THARAKA NITHI</b>	<b>County</b>	57.62	45.25	The county is in normal vegetation greenness in the month under review when compared to Above Normal category in the previous month of July.
	Chulga	61.51	50.79	
	Maara	60.97	46.02	
	Tharaka	55.08	42.92	



<b>WEST POKOT</b>	<b>County</b>	51.38	53.13	The vegetation greenness was above normal for the all the sub-counties. This was a notable stable trend in comparison the previous month.		
	Kacheliba	49.12	50.65			
	Kapenguria	51	54.5			
	Pokot South	63.51	61.87			
	Sigor	48.62	51.31			
<b>EMBU</b>	<b>County</b>	46.56	39.61	The county and its sub-counties remained stable during the month of August across most of the sub-counties with Normal vegetation greenness. Mbeere North and Runyenjes sub-counties deteriorated from above normal to normal vegetation greenness.		
	Manyatta	42.51	40.01			
	Mbeere North	53.27	44.86			
	Mbeere South	42.21	35.46			
	Runyenjes	52.28	42.78			
<b>ADMINISTRATIVE UNIT</b>						
<b>COUNTY</b>	<b>Sub County</b>	<b>VCI-3 month as at 26<sup>h</sup> July 2021</b>	<b>VCI-3 month as at 30<sup>th</sup> August 2021</b>	<b>Colour</b>	<b>VCI values (3-month)</b>	<b>Drought Category</b>
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					>=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>	38.38	41.68	The county and three of its sub counties remained stable at normal vegetation greenness. Kitui central improved from Normal to Above normal vegetation greenness, Kitui Rural from severe to moderate vegetation deficit. However, Mwingi West worsened from normal vegetation greenness to moderate vegetation deficit.		
	Kitui Central	46.37	55.31			
	Kitui East	40.18	45.7			
	Mwingi Central	32.78	33.9			
	Mwingi North	33.77	27.38			
	Mwingi West	35.43	32.64			
	Kitui Rural	18.5	27.82			
	Kitui South	41.41	48.56			

	Kitui West	40.64	41.97	
<b>MAKUENI</b>	<b>County</b>	44.07	50.46	The county and three other of its sub counties recorded above normal vegetation greenness conditions; improved trend compared to July except for Kilome which remained stable
	Kaiti	37.9	46.63	
	Kibwezi East	43.24	48.01	
	Kibwezi West	45.23	51.32	
	Kilome	50.89	56.77	
	Makueni	39.66	46.16	
	Mbooni	47.38	57.5	
<b>MERU</b>	<b>County</b>	51.44	44.27	The vegetation greenness is normal across the county and 3 others of its Sub-counties except for Igembe Central, Igembe South and North Imenti which recorded above normal vegetation greenness.
	Buuri	53.76	44.15	
	Central Imenti	51.64	41.85	
	Igembe Central	60.23	51.11	
	Igembe North	40.35	38.06	
	Igembe South	62.33	53.55	
	North Imenti	51.43	52.32	
	South Imenti	64.16	36.9	
	Tigania East	34.12	39.66	
	Tigania West	47.09	47.26	
<b>NYERI</b>	<b>County</b>	58.03	47.7	The county, Town and Othaya sub-counties worsened from above normal to above normal vegetation greenness when compared with the previous month of July, Kieni, Mathira, and Tetu remained stable in their VCI values.
	Kieni	60.23	52.8	
	Mathira	49.32	42.09	
	Mukurweini	39.8	52.9	
	Town	64.9	37.05	
	Othaya	64.44	37.32	
	Tetu	48.76	45.06	
<b>KILIFI</b>	<b>County</b>	22.7	21.19	The vegetation condition noted across the county was stable and most of its sub counties recording severe vegetation deficit. Rabai and Kilifi south sub-counties improved from extreme to severe vegetation deficit and from extreme to moderate vegetation deficit respectively.
	Ganze	21.8	17.24	
	Kaloleni	17.95	15.23	

	Magarini	22.66	21.53																			
	Malindi	24.84	19.41																			
	Kilifi-North	45.34	39.54																			
	Rabai	2.7	14.39																			
	Kilifi-South	2.06	26.18																			
<b>KWALE</b>	<b>County</b>	30.75	21.04	The county recorded moderate vegetation deficit, with Kinango sub-county recording severe vegetation deficit, a deterioration from the previous month of July.																		
	Kinango	26.02	16.93																			
	Lungalunga	40.55	28.8																			
	Matuga	31.23	23.56																			
	Msambweni	38.99	26.21																			
<b>LAMU</b>	<b>County</b>	40.72	32.41	The entire county deteriorated from normal vegetation greenness to moderate vegetation deficit yet the 2 sub-counties under review remained stable in comparison to previous month.																		
	Lamu East	50.82	51.31																			
	Lamu West	34.87	21.47																			
<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 26<sup>th</sup> July 2021</b>	<b>VCI-3 month as at 30<sup>th</sup> August 2021</b>	<table border="1"> <thead> <tr> <th>Colour</th> <th>VCI values (3-month)</th> <th>Drought Category</th> </tr> </thead> <tbody> <tr> <td style="background-color: #008000;"></td> <td>≥50</td> <td>Vegetation greenness above normal</td> </tr> <tr> <td style="background-color: #90EE90;"></td> <td>≥35 - &lt;50</td> <td>Normal vegetation greenness</td> </tr> <tr> <td style="background-color: #FFFF00;"></td> <td>≥20 - &lt;35</td> <td>Moderate vegetation deficit</td> </tr> <tr> <td style="background-color: #FF0000;"></td> <td>≥10 - &lt;20</td> <td>Severe vegetation deficit</td> </tr> <tr> <td style="background-color: #800000;"></td> <td>&lt;10</td> <td>Extreme vegetation deficit</td> </tr> </tbody> </table>	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
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	<10	Extreme vegetation deficit																				
<b>TAITA TAVETA</b>	<b>County</b>	35.47	43.47	The County remained stable at normal vegetation greenness. Taveta and Voi sub-counties improved from moderate vegetation deficit to normal vegetation greenness.																		
	Mwatate	40.58	42.58																			
	Taveta	34.15	41.87																			
	Voi	32.95	43																			
	Wundanyi	54.1	59.94																			

<b>NAROK</b>	<b>County</b>	59.24	53.99	There was a stability in Above Normal vegetation greenness band, in 7 sub-counties. However, the VCI value for Narok –East sub-county showed a decrease trend from above normal to normal vegetation greenness.
	Narok-East	57.64	49.59	
	Emurua Dikirr	62.69	64.54	
	Kilgoris	51.09	51.75	
	Narok-North	60.88	54.84	
	Narok-South	64.38	57.44	
	Narok-West	58.06	52.66	

## 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 5). Identifying the correct drought phase helps to guide the most appropriate response for that stage in the drought cycle.

**Table 11.0: Indicators monitored by the drought early warning system**

Type of indicator	Examples of indicators monitored	Types of impact
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
Utilization	MUAC (Mid-Upper Arm Circumference) Coping strategies	Nutrition Coping strategies

**Figure 4.0: Drought Phase Classification**

