



NATIONAL DROUGHT MANAGEMENT AUTHORITY

National Drought Early Warning Bulletin

October 2020

KEY HIGHLIGHTS

- Most parts of the country experienced generally sunny and dry conditions throughout the month of September. However, The historically above-average March-April-May (MAM) 2020 rainfall has continued to impact positively on water availability, forage, and crop production across the ASAL region.
- During the month under review, livestock body condition for all species was generally good and as a result, in most ASAL areas cattle prices are above the three-year average price for the month of September.
- In September 2020, the Terms of Trade (ToT) were favourable in nearly all the ASAL counties with the current ToT in over 90 percent of the counties remaining above the LTA. The favourable terms of trade across the counties was credited to above normal goat prices along with the prevailing below-average maize prices.
- Access to water for livestock was better in September compared with normal times as animals had to walk shorter distances compared with the usual distances recorded in the 2015 - 2019 long term average (LTA). This was attributed to the average to above-average performance of the March to May rains which supported significant recharge of water sources as well as triggering substantial pasture and browse regeneration in most ASAL counties.
- Currently, environmental indicators in 19 counties are within the expected ranges for the time of the year and hence are classified in the normal drought stage while four counties including Mandera, Garissa, Marsabit and Wajir are classified in the alert phase. In most counties, the trend is worsening, as would be expected towards the end of the dry season.

Drought phase classification, September 2020

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

1.0. Drought status

1.1 Drought indicators

Rainfall

Most ASAL counties like Mandera, Marsabit, and Wajir experienced generally sunny and dry conditions throughout the month of September 2020 which is normal at this time of the year. At the same time, several areas in Baringo, Samburu, West Pokot, Kilifi, and Kwale received significant rainfall amounts during the month.

Vegetation condition

The drought early warning system managed by the National Drought Management Authority (NDMA) assesses the severity of drought and its impact through the use of a combination of biophysical data, remote-sensed vegetation condition records, and social-economic data to determine the drought status in the 23 ASAL counties.

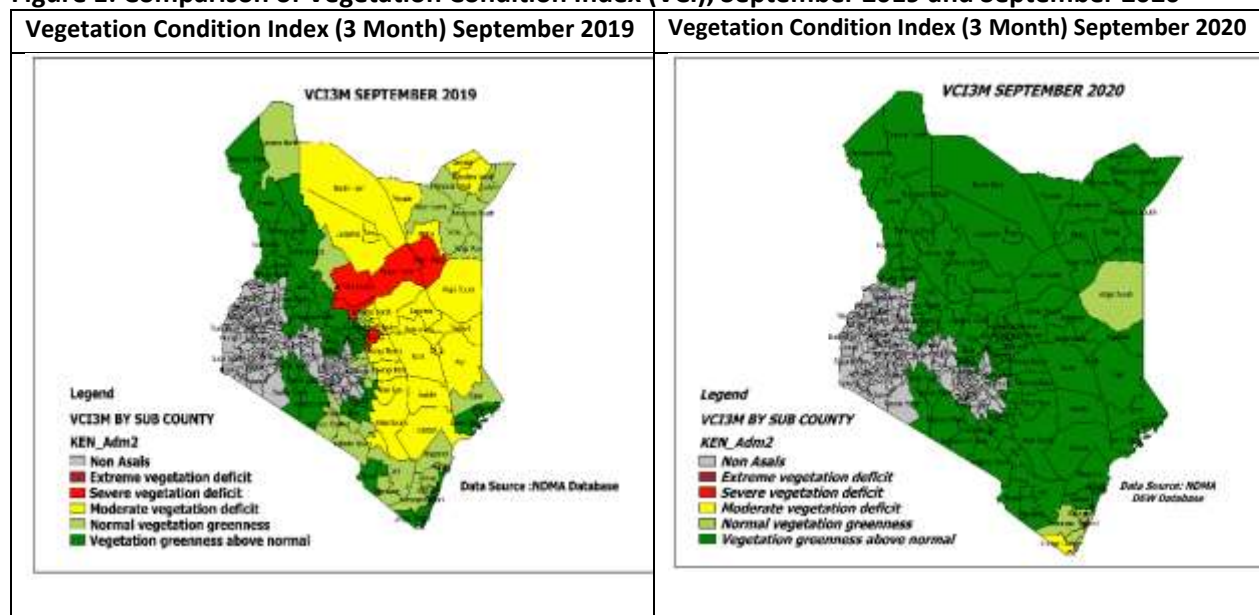
The Vegetation Condition Index (VCI) communicates the state of vegetation cover, comparing it with the range of values observed in the same period in previous years. Vegetation Condition Index (VCI) values as of 28th September 2020 are summarized in Table 1. Most ASAL areas received above-average rainfall during the 2020 March to May long rains season and as a result, vegetation greenness in the ASAL region is currently in the above normal ranges for the period. However, in Kwale County, the county VCI in September deteriorated slightly dropping to the normal vegetation greenness band with one sub-county Lunga Lunga recording moderate vegetation deficit.

Table 1: Vegetation Condition Index (VCI), September 2020

<i>Vegetation Condition Index (VCI 3 month) Summary Status as of 28th September 2020</i>					
<i>Above Normal</i>			<i>Normal</i>	<i>Moderate</i>	<i>Severe</i>
• Mandera	• Tana River	• Garissa	• Kwale		
• Turkana	• Samburu	• Isiolo			
• Kitui	• West Pokot	• Wajir			
• Kajiado	• Embu	• Laikipia			
• Lamu	• Meru	• Marsabit			
• Makueni	• Narok	• Nyeri (Kieni)			
• Baringo	• Taita Taveta	• Kwale			
• Kilifi	• Tharaka				
(22)			(1)	(0)	(0)

Figure 1 compares the vegetation condition index (VCI) in late September 2019 with that in late September 2020. When compared to similar period last year and the long term average, the current condition of vegetation is remarkably above September 2019 and long term average VCI values. The vegetation greenness index in most counties for the last nine consecutive months has been above normal ranges which is attributed to the impact of the above average cumulative rains received during the October - November - December (OND) 2019 and March-April-May (MAM) 2020 rainfall seasons.

Figure 1: Comparison of Vegetation Condition Index (VCI), September 2019 and September 2020



Livestock production

Availability of good pasture and browse continued to positively impact on livestock productivity. In September, livestock body condition for most species was good with slight variations across the counties. In all areas, animals recorded better body condition currently compared to the similar period in previous years which was attributed to the positive impact of the long rains season on forage regeneration.

Pasture and browse condition

As a result of the above normal March to May rainfall, 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 2. However, Mandera, Meru and Tana River reported a deterioration pasture quantity and quality. For instance, in Mandera County 57 percent of the 210 households interviewed reported that pasture and browse condition was poor while 43 percent reported pasture and browse condition as fair. The deterioration in pasture situation was attributed to reduced regeneration owing to the prevailing dry condition and heavy grazing pressure due to the large increase in livestock numbers.

Table 2.0: Pasture and browse condition, September 2020

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

Livestock body condition

In September livestock body condition for all species was generally good except in few counties like Tana River, Turkana, Marsabit, Garissa, Nyeri, and Lamu where fair livestock body condition was observed as illustrated in Table 2. The slight decline in livestock body condition was attributed to the gradual degeneration of forage as the typical dry spell ensued.

Table 3.0: Livestock body condition, September 2020

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

Milk production

Milk production situation in the 23 ASAL counties is presented in Table 4. Milk production reduced considerably across counties during the month under review. For example, in Marsabit County, average milk production per household per day dropped by a margin of 43 percent to 0.8 litres in September from 1.4 litres in August while household milk production per day in Wajir reduced by 29 percent from 2.1 litres in August to 1.5 litres in September. Similarly, in Kajiado County, average milk production per household per day decreased by 25 percent from 4 litres in August to 3 litres in September. The observed drop in milk production was attributed to dry conditions and the associated general decline in availability of water, pasture and browse in most ASAL counties.

Table 4.0: Milk production, September 2020

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

Cattle prices

In majority of the ASAL counties, cattle prices are above the three-year average price for the month of September as shown Table 5. For example, in Wajir, Kajiado, Makueni, Garissa, Kilifi, and Marsabit the prevalent prices are above the average cattle prices for a similar period of the year by 49, 48, 47, 25, 23, and 21 percent respectively. The above normal cattle prices was attributed to

the improved cattle body condition. However, in Turkana County, the price of cattle was lower than the long term average price for the same month by nine percent which could be attributed to the deteriorating cattle body condition occasioned by declining pasture availability.

Table 5.0: Cattle prices, September 2020

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

Goat prices

Table 6 exhibits the trends in goat prices in September 2020 in the 23 ASAL counties. During the month under review, nearly all ASAL counties reported above normal or close to LTA prices for goats that was occasioned by the prevalent good body condition for goats.

Table 6.0: Goat prices, September 2020

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

For example, in Kajiado County, the average price of Kshs 5,390 recorded in September for a 2-year old medium size goat was 59 percent higher than the three-year average of Kshs 3,390. In Samburu, the average price for a medium size goat of Kshs 3,420 was above the 2015-2019 average by 26 percent while in Baringo the average price of a goat stood at Kshs 3,406 which was above the LTA by 11 percent. Similarly, in West Pokot, the county reported an average price of Kshs 4,525 for a 2-year old goat which was 12 percent above the long term average price for September.

Crop production

Land preparation is ongoing in nearly all the marginal agricultural counties as households prepare for the start of the October to December short rains. Currently there were no crops on the farms apart from crops grown under irrigation such as kales, cabbages and tomatoes.

Maize prices

In about 65 percent of the ASAL counties the price of maize remained stable in September. In addition, the current maize prices are largely favourable with 20 counties recording prices that are close to or below LTA. For example, in Meru (Meru North), Lamu, West Pokot, Kilifi, Baringo

and Narok current prices are below LTA by 21, 19, 18, 14, 11 and 9 percent respectively. The decrease in maize prices was attributed to harvesting and hence availability of maize at household level and increase in maize supply in most markets. Table 7 shows the trends in maize prices in September 2020.

Table 7.0: Maize prices, September 2020

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

Access to water for households

The trends in distances walked by households to access water is illustrated in Table 8. Generally, the domestic water situation in most counties declined slightly but largely remained better when compared with similar periods. In 12 ASAL counties, the average distances to water sources for households recorded an increase compared to the month of August. Some of the largest increase in distances to the main water points for households during the month were in the following counties: Tana River, Wajir, Turkana, Marsabit, Kwale, Mandera, Kilifi, Lamu and Nyeri.

In Kwale, for instance, average household distance to watering sources increased by 46 percent from 2.4 km in August to 3.5 km in September. In Tana River, current average return distance from household to the main water sources increased to 5.2 km from 4.1 km in August, rising by 28 percent. Likewise, in Turkana County, distance to water sources from the household increased by 22 percent to 5.6 km from 4.6 km recorded in August, while in Mandera return distances to the main water points for households increased by 21 percent from 9.8 km in August to 11.9 km in September. The increase in the trekking distance to water sources was as result of drying up of some open water sources such as traditional wells, ponds, shallow wells, water pans and dams.

Table 8.0: Distance from households to main water sources, September 2020

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

Access to water for livestock

Table 9 displays the current status and trends in the distance walked by livestock in search of water. Compared with the previous month, the current trekking distance to water source from grazing areas increased or remained stable in all counties except in Tharaka and Embu. The worsening trend was attributed to the drying up of open water sources occasioned by the dry conditions experienced during the month under review.

However, in 15 counties, access to water for livestock was better in September compared with normal times as animals had to walk shorter distances compared with the usual distances recorded in the 2015 - 2019 long term average (LTA). This was attributed to the average to above average performance of the March to May rains which supported significant recharge of water sources as well as triggering substantial pasture and browse regeneration in most ASAL counties.

Table 9.0: Distance from livestock grazing area to main water sources, September 2020

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

Terms of trade

Terms of trade (ToT) is an indirect means of measuring purchasing power for households who mainly depend on markets for food. Therefore, each month, the drought early warning system monitors the relative price of goats and maize, showing the number of kilogrammes of maize that can be exchanged for one goat.

In September 2020, the terms of trade were favourable in nearly all the ASAL counties with the current ToT in 22 counties remaining above the LTA as shown in Table 10. The favourable terms of trade across the counties is credited to above normal goat prices along with the prevailing below average maize prices. Among the arid counties, the highest terms of trade was recorded in Marsabit County where households could purchase 88 kg of maize from the sale of one average-sized goat compared to the LTA for September of 68 kg. Garissa County recorded the lowest terms of trade at 50 kg which was still above the LTA of 30 kg.

Table 10.0: Terms of trade, September 2020

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

Health and nutrition

In several arid counties, the proportion of children who are moderately and severely malnourished increased slightly in September when compared to the previous month which could partially be attributed to reducing milk consumption as well as poor dietary intake. For instance, In Isiolo County, 4.2 and 7.0 percent of children were severely malnourished and moderately malnourished respectively. Similarly in Turkana County, 2.2 percent of children had moderate malnutrition while 0.6 percent were severely malnourished. On the other hand in Baringo County, as a result of the availability of milk at the household level and enhanced household income from higher livestock prices, the nutrition status of the sampled children under five years of age remained stable of which 86.7 percent of the sampled children were properly nourished while 9.2 and 1.1 percent had moderate and severe malnutrition respectively.

1.2 Drought phase classification

The Kenyan drought management system uses five drought early warning phases categorized as normal, alert, alarm, emergency and recovery. Currently, environmental indicators in 19 counties lie within the expected ranges for the time of the year and hence are classified in the normal drought stage. On the other hand, four counties including Mandera, Garissa, Marsabit and Wajir are classified in the alert phase. In most counties, the trend is worsening, as would be expected towards the end of the dry season. Basically, as at the end of September, 12 counties were reporting a worsening trend while 11 counties recorded a stable trend. Table 11 shows the trend in drought status in the 23 ASAL counties.

Table 11.0: Drought phase classification, September 2020

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

2.0 Projected food security situation

According to the forecast for the October-November-December (OND) 2020 short rains season, it is projected that several parts of Kenya will experience depressed rainfall that will be poorly distributed both in time and space.

The below-average rainfall is expected to support modest recharge of water sources and short-lived pasture regeneration which is likely to result in a gradual deterioration in livestock productivity across ASAL counties. It is also anticipated that in most pastoral areas livestock migration is likely to start earlier than usual hence reducing household milk access and increasing chances of resource-based conflicts and spread of livestock diseases.

In the marginal agricultural areas, the below normal rainfall is expected to lead to poor crop performance. Furthermore, the expected decrease in cropping activities and demand for agricultural wage labour will likely result in below-average household income from casual labour and crop sales.

3.0 Recommendations

- Up scaling provision of food assistance and cash transfers to vulnerable households.
- Livestock disease surveillance across counties.
- Promote hay harvesting and conservation.
- 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.
- 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 28th September 2020

ADMINISTRATIVE UNIT		VEGETATION GREENNESS		DROUGHT CATEGORIES/REMARKS		
COUNTY	Sub County	VCI-3 month as at 31 st Aug 2020	VCI-3 month as at 28 th Sept 2020	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	98.09	96.55	Off season rains received during the June to September period have improved the vegetation greenness substantially hence vegetation greenness has remained above normal in all parts of the county.		
	Central	88.95	88.01			
	Eldama	85.56	83.39			
	Mogotio	97.22	97.02			
	North	94.19	92.66			
	South	88.83	89.98			
	Tiaty	98.09	104.49			
MANDERA	County	95.49	94.20	All sub counties maintained above normal vegetation greenness.		
	Banissa	85.70	85.29			
	M. East	88.26	86.00			
	Lafey	103.1	100.58			
	M. North	96.99	99.51			
	M. South	96.12	93.86			
	M. West	95.56	91.23			
TURKANA	County	91.05	91.13	Enhanced vegetation condition across all the sub counties with vegetation greenness above normal in all parts of the county.		
	T. Central	105.12	101.28			
	T. East	86.63	80.71			
	T. Loima	99.48	105.14			
	T. North	78.99	77.06			
	T. South	98.83	100.63			
	T. West	95.23	99.54			
MARSABIT	County	68.87	69.01	The entire county is in above normal vegetation greenness.		
	Laisaimis	73.62	71.29			
	Moyale	62.73	68.32			
	N. Horr	67.08	67.13			
	Saku	81.41	83.03			
WAJIR	County	62.8	62.51	All sub counties maintained vegetation greenness above normal with slight deterioration in Wajir South.		
	W. East	69.12	70.57			
	W. Eldas	62.74	60.66			
	W. North	83.88	78.79			
	W. South	47.84	49.63			
	W. Tarbaj	81.72	78.72			
	W. West	54.35	58.98			

ADMINISTRATIVE UNIT		VEGETATION GREENNESS		DROUGHT CATEGORIES/REMARKS		
COUNTY	Sub County	VCI-3 month as at 31 st Aug 2020	VCI-3 month as at 28 th Sept 2020	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				
SAMBURU	County	82.46	79.66	The entire county is in above normal vegetation greenness.		
	S. East	81.76	81.86			
	S. North	82.33	75.37			
	S. West	86.15	85.63			
GARISSA	County	64.81	63.08	The county and its sub counties is in above normal vegetation greenness.		
	Balambala	93.45	89.90			
	Daadab	66.62	63.43			
	Fafi	60.41	56.76			
	Ijara	51.68	53.62			
	Lagdera	69.15	70.65			
	Dujis	72.18	69.00			
ISIOLO	County	65.47	76.59	Enhanced vegetation condition across all the sub counties with vegetation greenness above normal in all parts of the county.		
	I. North	65.00	76.31			
	I. South	66.18	77.02			
TANA RIVER	County	78.77	76.93	The vegetation greenness is above normal across the county.		
	Bura	95.63	90.63			
	Galole	71.80	72.08			
	Garsen	68.82	68.34			
KAJIADO	County	91.10	95.59	The vegetation greenness is in the above normal range for the period.		
	K. Central	77.98	80.70			
	K. East	80.29	86.21			
	K. North	66.55	59.8			
	K. South	87.85	96.10			
	K. West	106.36	108.43			
LAIKIPIA	County	90.85	87.86	Enhanced vegetation condition across all the sub counties with vegetation greenness above normal in all parts of the county.		
	L. East	83.79	78.22			
	L. North	93.52	89.84			
	L. West	89.25	88.81			
THARAKA NITHI	County	68.49	66.17	The county and its sub counties is in above normal vegetation greenness.		
	Chulga	78.63	71.45			
	Maara	78.38	70.50			
	Tharaka	61.51	62.80			
WEST POKOT	County	85.81	87.86	As a result of the cumulative effect of the off season rainfall received during the period from June to September, the vegetation greenness is above normal across the county.		
	Kacheliba	86.63	91.28			
	Kapenguria	88.74	90.14			
	Pokot South	69.77	73.01			
	Sigor	88.66	88.50			

ADMINISTRATIVE UNIT		VEGETATION GREENNESS		DROUGHT CATEGORIES/REMARKS		
COUNTY	Sub County	VCI-3 month as at 31 st Aug 2020	VCI-3 month as at 28 th Sept 2020	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				
EMBU	County	74.08	66.22	Enhanced vegetation condition across all the sub counties with vegetation greenness above normal in all parts of the county.		
	Manyatta	78.17	72.48			
	Mbeere North	74.25	70.51			
	Mbeere South	72.27	60.69			
	Runyenjes	75.81	66.22			
KITUI	County	97.13	96.50	The vegetation greenness is in the above normal range for the period.		
	Kitui Central	106.41	111.79			
	Kitui East	108.47	106.97			
	Mwingi Central	99.41	97.86			
	Mwingi North	76.84	78.64			
	Mwingi West	95.13	97.66			
	Kitui Rural	112.85	117.13			
	Kitui South	97.09	94.86			
	Kitui West	109.24	112.84			
MAKUENI	County	96.09	99.91	The county and its sub counties is in above normal vegetation greenness.		
	Kaiti	96.51	93.19			
	Kibwezi East	88.92	94.48			
	Kibwezi West	89.93	95.73			
	Kilome	87.28	88.10			
	Makueni	105.17	107.87			
	Mbooni	118.95	121.71			
MERU	County	80.57	82.38	The vegetation greenness is above normal across the county.		
	Buuri	81.81	84.90			
	Central Imenti	80.63	73.28			
	Igembe Central	88	95.13			
	Igembe North	72.74	78.09			
	Igembe South	81.64	82.40			
	North Imenti	89.34	84.15			
	South Imenti	81.25	75.60			
	Tigania East	75.57	79.35			
	Tigania West	82.86	85.32			

ADMINISTRATIVE UNIT		VEGETATION GREENNESS		DROUGHT CATEGORIES/REMARKS		
COUNTY	Sub County	VCI-3 month as at 31 st Aug 2020	VCI-3 month as at 28 th Sept 2020	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
NYERI	County	82.84	78.66	Vegetation greenness above normal in all parts of the county.		
	Kieni	85.85	83.28			
	Mathira	82.22	75.18			
	Mukurweini	78.82	69.15			
	Town	86.89	82.52			
	Othaya	74.16	65.68			
	Tetu	76.65	74.78			
KILIFI	County	58.72	53.25	The county is in the above normal vegetation greenness band with slight deterioration (normal vegetation greenness) observed in 3 sub counties: Kaloleni, Rabai and Kilifi South.		
	Ganze	58.75	51.63			
	Kaloleni	56.01	46.06			
	Magarini	58.72	54.67			
	Malindi	63.43	60.01			
	Kilifi-North	58.52	55.29			
	Rabai	59.89	45.52			
	Kilifi-South	56.2	43.68			
KWALE	County	46.51	37.88	The county VCI in September is within normal ranges. However, Lunga Lunga sub county is currently experiencing a moderate vegetation deficit.		
	Kinango	46.1	38.32			
	Lungalunga	40.52	29.27			
	Matuga	56.27	47.78			
	Msambweni	55.27	48.73			
LAMU	County	59.38	61.34	The county and its sub counties is in above normal vegetation greenness.		
	Lamu East	65.63	65.48			
	Lamu West	55.77	58.94			
TAITA TAVETA	County	85.96	86.49	The vegetation greenness is above normal across all the sub counties.		
	Mwatate	87.68	88.73			
	Taveta	87.68	92.49			
	Voi	82.61	81.54			
	Wundanyi	110.8	107.37			
NAROK	County	79.18	80.52	Vegetation greenness above normal.		
	Narok-East	81.22	81.24			
	Emurua Dikirr	68.32	77.31			
	Kilgoris	67.52	71.00			
	Narok-North	77.16	74.27			
	Narok-South	84.28	84.57			
	Narok-West	80.83	84.32			

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

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
Utilisation	MUAC (Mid-Upper Arm Circumference) Coping strategies	Nutrition Coping strategies

Figure 2.0: Drought Phase Classification

