NATIONAL DROUGHT MANAGEMENT AUTHORITY

National Drought Early Warning Bulletin

April 2020

KEY HIGHLIGHTS

- As a result of the timely start of the March-April-May (MAM) rainfall, all the 23 ASAL counties are currently categorized in the normal drought phase, with the trend improving in 5 counties while a stable trend was observed in 17 counties.

- The March to May rains have positively impacted on water sources for both livestock and household consumption positively by increasing water availability and improving access by means of reducing distances to water points. In most ASAL counties, the water situation observed in March was considerably better in comparison to the one normally witnessed at this time of the year.

- Early onset of the MAM 2020 season rainfall has started to impact positively on both crop and livestock production. In many ASAL areas, livestock production has improved which is attributed to increased availability of water and pasture. Availability of these rangeland resources has led to a general improvement in livestock body condition for all livestock species, which in turn has boosted milk production and overall increase in livestock productivity.

- All pastoral counties recorded favourable terms of trade (ToT), implying that in March 2020 livestock producers in these counties could purchase quantities of maize above seasonal averages from the sale of a medium size goat.

Drought phase classification, March 2020

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

1.0 Drought status

1.1 Drought indicators

Rainfall

Onset of the 2020 March to May long rains season was early since majority of the ASAL counties started receiving rains in the first and second week of March compared to third and fourth week of March when the March-April-May (MAM) season normally begins. The MAM rains have impacted water sources for both livestock and household consumption positively by increasing availability through increasing the number of sources holding water and improving access through reducing distances to water points. In most ASAL counties, the water situation observed in March was considerably better in comparison to the one normally witnessed at this time of the year. Early onset of the MAM 2020 season rainfall has started to impact positively on both crop and livestock production.

Vegetation condition

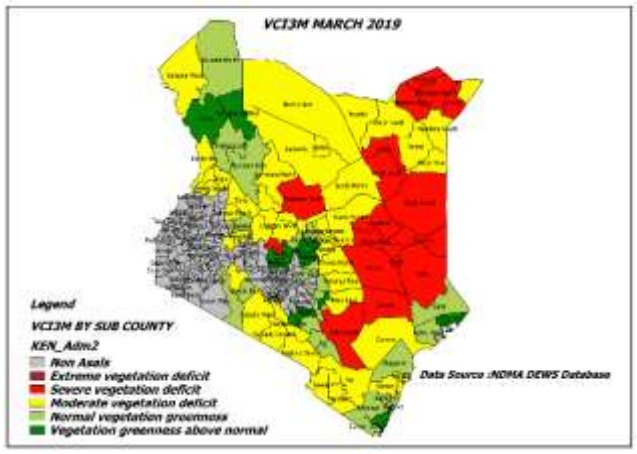
NDMA uses Earth Observation (EO) data to derive information products which are used to report on vegetation conditions and to detect possible risks for food security linked to reduced pasture and browse availability. Vegetation Condition Index (VCI) values as at 30th March 2020 is summarized in Table 1. Most ASAL areas have received good rains since October 2019 and the vegetation indices at the end of March 2020 indicate above average condition.

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

Vegetation Condition Index (VCI 3 month) Summary Status as at 30th March 2020				
Above Normal			*Normal*	*Moderate*	*Severe*
• Mandera • Turkana • Kitui • Kajiado • Lamu • Makueni • Baringo • Kilifi	• Tana River • Samburu • West Pokot • Embu • Meru • Narok • Taita Taveta • Tharaka	• Garissa • Isiolo • Wajir • Laikipia • Marsabit • Nyeri (Kieni) • Kwale			
(23)			(0)	(0)	(0)

Figure 1 compares the vegetation condition index (VCI) in March 2019 with that in March 2020. The March 2020, VCI map illustrates that the vegetation condition in March 2020 was better compared to the situation in March 2019 as shown in Figure 1.

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

Vegetation Condition Index (3 Month) March 2019	Vegetation Condition Index (3 Month) March 2020
	

Water sources

Water pans, dams, seasonal rivers, ponds, boreholes, traditional river wells and springs were the most reliable sources of water for both livestock and domestic use during the month under review. Majority of the open water sources including pans, dams and rock catchments were at 50 to 80 percent capacity across ASAL counties. In nearly all ASAL areas, the water sources in use in March 2020 were the normal sources where households drew water from at this time of the year. However, the observed water situation during the month was considerably better in comparison to the one normally witnessed in other years, which was attributed to the average to above average rains received in March 2020.

Livestock production

In many ASAL areas, livestock production has improved which is attributed to increased availability of water and pasture. Availability of these rangeland resources has led to a general improvement in livestock body condition for all livestock species, which in turn has boosted milk production and overall increase in livestock productivity.

Pasture and browse condition

During the month of March, pasture and browse condition was good across the ASAL counties compared to fair normally as shown in Table 2. The observed improvement in pasture and browse situation which is above normal for the month is attributed to the enhanced rainfall received in March 2020.

Table 2.0: Pasture and browse condition, March 2020

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

Livestock body condition

Livestock body condition for cattle and goats was fair to good in all counties as illustrated in Table 3. The current livestock body condition has improved compared to last month due to the decrease in trekking distances in search of pasture and water coupled with growth in pasture and browse quantity and quality. Overall, the current body condition of most livestock is above normal in comparison to similar periods during a normal year.

Table 3.0: Livestock body condition, March 2020

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

Milk production

Milk production situation in the 23 ASAL counties is presented in Table 4. In comparison to the long term average; current milk production in nineteen counties is above or close to LTA which was attributed to good availability of water, pasture and browse. However, four counties which includes: Kajiado, Makueni, Lamu and Kitui recorded below normal milk production. The below average milk production was attributed to a drop in calving rates and a general reduction in herd size at household level.

Table 4.0: Milk production, March 2020

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

In all ASAL counties, the current average price for cattle are above or close to the 2015 - 2019 mean. For example, in Marsabit County the average cattle price recorded in March was Kshs 26,434/= which was above the LTA price of Kshs 18,827 by 40 percent. Similarly in Samburu County the average price of 4-year old medium size bull during the month was Kshs 21,455/= which was above the 2015 - 2019 LTA by 36 percent. The above average cattle prices is attributed to the improved body condition of cattle relative to the typical state that would be expected at this time of the year. Table 5 presents trends in cattle prices.

Table 5.0: Cattle prices, March 2020

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

Goat prices

Table 6 exhibits the trend in goat prices in March 2020 in the 23 ASAL counties. During the month under review, all ASAL counties reported above normal or close to LTA prices for goats that was occasioned by the prevalent good body condition for goats. For instance, in Kwale County, the price of a medium-sized three-year-old buck was Kshs 4,428/= in March having increased by a 25 percent margin from Kshs 3,533/= recorded in February. In addition, the price was more than double (117 percent) that expected for this time of the year which is recorded as Kshs 2,041/= in the 2016 - 2018 LTA. In the same way, current average prices for goats in Garissa, Kajiado, West Pokot, Kilifi, Narok and Wajir were above LTA by 78, 58, 53, 33, 25 and 20 percent respectively. Continued availability of rangeland resources such as browse and water was credited as the contributing factor to the improved market price.

Table 6.0: Goat prices, March 2020

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

Crop production

During the month of March most farmers in the marginal agricultural areas were engaged in land preparation and planting. In some counties such as Kitui, Kwale, Embu (Mbeere), Taita Taveta, Nyeri (Kieni) and Tharaka where farmers had planted in early March in anticipation of a timely onset of the March to May (MAM) long-rains season crops were at the germination stage.

Desert locust infestation was reported in parts of Tharaka Nithi County such as Maragwa, Kathanga Chini, Kathagani, Kathiriku, Karangare and Makithi. However, the spread of the locust in the county was effectively managed as a result of the swift action by the aerial and ground control teams.

Maize prices

Table 7 presents the maize price trends in ASAL counties. In 20 ASAL counties, the retail price of maize was below or close to the 2015 - 19 average. For instance, in Meru County average maize price during the month of February was Kshs 79 per kg which is 27 percent higher than the three-year mean of Kshs 62. The average market price of a kilo of maize fell by 22 percent to Kshs 25 from Kshs 32 recorded in February. The retail price of maize in Meru in March was 31 percent lower than the three-year average of Kshs 36. Similarly, in Turkana, Kitui, Marsabit and Narok maize prices were below LTA by 25, 17, 12 and 11 percent respectively. The below normal maize price is attributed to increased supply of the commodity in markets in most ASAL areas and the enhanced short rains season harvest which has replenished household maize stocks.

Table 7.0: Maize prices, March 2020

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

Access to water

In all ASAL counties, average household distances are below the five-year average. The shorter household distances to water points recorded in March was fundamentally occasioned by recharge of open water sources. For example, in Marsabit, average return distances from households to water sources reduced by 11 percent from 4.5 km in February to 4.0 km in March. In addition, when compared to similar periods, the current household water distance of 4.0 km is 44 percent shorter than the normal household water distance of 7.2 km. Equally, in Isiolo, Narok, Kilifi, Kitui, Tana River, Turkana and Wajir average household distances are below the 2015 - 2019 mean by 74, 63, 58, 50, 41, 40 and 34 percent respectively. Table 8 summarizes the trend in distances walked by households to access water.

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

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

As a result of adequate pasture availability within sites in close proximity to water sources, all ASAL counties reported lower than the five-year average trekking distances from grazing fields to water sources, implying improved access in comparison with a similar period in the past.

However, in Samburu County, livestock trekking distances increased due to deterioration of pasture as a result of forage damage caused by desert locusts which led to severely reduction in pasture and browse availability especially in parts of Samburu East sub-county. Consequently, the average distance for livestock increased to 9.4 km up from 8 km recorded in the month of February. But even with the increase in livestock trekking distance, the current situation remained below the

LTA of 14.5 km. The trend in the distance trekked by livestock in search of water is illustrated Table 9.

Table 9.0: Distance from livestock grazing areas to main water sources, March 2020

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

Terms of trade

Table 10 shows the trend in terms of trade (ToT) between the relative price of goats and maize. In all ASAL areas, the current value is above or close to the long term average (LTA), implying that livestock producers in these counties could purchase quantities of maize above seasonal averages from the sale of a medium size goat. This was attributed to rising goat prices as a result of their good body condition while maize prices were stabilizing or declining.

However, in Wajir County, the terms of trade decreased slightly by 9 percent from 66 kg of maize in February to 60 kg in March indicating that a lesser amount of maize could be purchased from the proceeds of an average sized goat this month compared with last month. In the same way, in Kwale, Embu (Mbeere) and Isiolo terms of trade decreased by 13, 9 and 7 percent respectively. The worsening trend in ToT recorded in these counties were largely due to a drop in the goat prices while maize prices increased.

Table 10.0: Terms of trade, March 2020

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

Health and nutrition

Overall, in approximately 90 percent of the ASAL counties, the proportion of children under five at risk of malnutrition, determined by a mid-upper arm circumference (MUAC) measurement is close to or below LTA. For example, in Kilifi the proportion of children at risk of being malnourished reduced from 3.3 percent in February to 2.5 percent in March. The decrease was attributed to adequate dietary intake and nutrition interventions including baby friendly initiatives conducted by the health sector partners. In Mandera, prevalence of malnutrition declined by 20 percent compared to the previous month while in Kitui the proportion of children under five at risk of malnutrition dropped from 7.6 percent in February to 6.5 percent in March which was attributed to increase in availability of diverse food commodities at household level. Table 11 summarizes the trend in the proportion of children aged 6 to 59 months at risk of malnutrition.

Table 11.0: Children at risk of malnutrition (MUAC), March 2020

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

1.2 Drought phase classification

Table 11 sums up the trend in drought phase classification as at end of March 2020. On the basis of the range of indicators monitored which includes: rainfall performance, vegetation condition and the state of water sources all the 23 ASAL counties are currently categorized in the normal drought phase, with the trend worsening in only one county, improving in 5 counties while a stable trend was observed in 17 counties.

Table 11.0: Drought phase classification, March 2020

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

2 Projected food security situation

According the Kenya Meteorological department (KMD) forecast for April 2020, rainfall performance during the month of March was average to above average. The forecast indicates that ASAL counties such as Mandera, Wajir, Garissa, Isiolo, parts of Kajiado, Kitui, Makueni, Taita Taveta, Tana River, Kilifi, Lamu, Kwale, Embu, Tharaka Nithi, and parts of Meru are likely to experience above average rainfall especially during the first three weeks of April 2020. However, Laikipia, Baringo, Narok, parts of Kajiado, Turkana, West Pokot and Samburu, a few areas in Nyeri and parts of Meru are likely to experience dry spells during the first two weeks of the month. The figure to the right shows the expected rainfall performance in April 2020.

Household and livestock water distances are expected to be within the normal ranges for the next one month. Livestock productivity including body condition, milk production and livestock prices is projected to remain stable and above average at least over the next one month as a consequence of the ongoing long rains sustaining further regeneration of pasture and browse.

Enhanced rainfall performance is likely to improve food availability at household levels and minimize reliance on markets for food supplies. Maize prices are likely to remain stable and near average for the next 2 to 3 months.

However, enhanced rains might result in flooding which might lead to loss of lives, displacement, destruction of infrastructures and upsurge in water borne diseases. Furthermore, COVID-19 pandemic associated travel restrictions and social distancing constraints might impact negatively on supply of food commodities and market operations including livestock markets.

3 Recommendations

- Provision of food and non-food assistance to approximately 1.3 million people in the ASAL areas currently experiencing ‘Crisis’ and ‘Emergency’ food security outcomes.

- The projected above average March-April-May (MAM) rains are likely to result in floding in some of the flood prone ASAL counties such as West Pokot, Tana River and Garissa. Consequently, it is imperative for all counties to put in place approprite mitigation measures to prevent loss of lives and livelihoods.

- Create awareness and educate ASAL communities on key measures to help curb the spread of Coronavirus disease (COVID-19).

- Intensify ground and aerial spraying to control the spread and infestation of desert locusts in the country.

- Promote rain water harvesting, pasture establishment and conservation.

- Investment in preparedness and the capacity to respond effectively during the next drought, including refining drought contingency plans and operationalizing contingency funds.

Annex 1.0 Vegetation Condition Index (VCI-3 month) as at 30th March 2020

ADMINISTRATIVE UNIT		VEGETATION GREENNESS		DROUGHT CATEGORIES/REMARKS
COUNTY	**Sub County**	**VCI-3 month as at 24th February 2020**	**VCI-3 month as at 30th March 2020**	
BARINGO	**County**	98.82	92.16	**Vegetation greenness above normal across the county and its sub counties.**
	Central	85.71	89.81	
	Eldama	71.66	74.2	
	Mogotio	97.55	91.68	
	North	91.05	93.1	
	South	97.09	94.89	
	Tiaty	110.51	95.07	
MANDERA	**County**	92.28	79.33	**Enhanced vegetation condition across all the sub counties with vegetation greenness above normal in all parts of the county.**
	Banissa	88.11	64.95	
	M East	79.54	61.49	
	Lafey	91.82	71.76	
	M North	101.99	83.76	
	M South	95.82	97.71	
	M West	84.77	75.58	
TURKANA	**County**	102.4	117.71	**The vegetation greenness is above normal across the county.**
	T Central	108.19	122.39	
	T. East	88.82	79.49	
	T. Loima	133.6	141.64	
	T. North	90.38	117.9	
	T. South	113.22	118.26	
	T. West	99.88	128.36	
MARSABIT	**County**	93.89	89.83	**The vegetation greenness is in the above normal range for the period.**
	Laisaimis	101.5	102.96	
	Moyale	84.52	70.83	
	N. Horr	91.19	86.28	
	Saku	108.28	107.67	
WAJIR	**County**	83.69	75.85	**The county and its sub counties is in above normal vegetation greenness.**
	W. East	98.17	88.23	
	W. Eldas	66.52	63.38	
	W. North	94.64	89.92	
	W. South	77.46	67.25	
	W. Tarbaj	85.82	80.34	
	W West	91.22	81.1	

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

ADMINISTRATIVE UNIT		VEGETATION GREENNESS		DROUGHT CATEGORIES/REMARKS
COUNTY	**Sub County**	**VCI-3 month as at 24th February 2020**	**VCI-3 month as at 30th March 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**	96.66	91.7	**The vegetation greenness is in the above normal range for the period.**
	S East	92.28	87.32	
	S. North	101.42	96.71	
	S. West	98.07	92.18	
GARISSA	**County**	77.88	77.84	**The county and its sub counties is in above normal vegetation greenness.**
	Balambala	79.85	70.78	
	Daadab	66.6	61.14	
	Fafi	77.24	83.23	
	Ijara	89.96	93.71	
	Lagdera	77.77	70.24	
	Dujis	56.59	59.29	
ISIOLO	**County**	85.67	77.9	**Enhanced vegetation condition across all the sub counties with vegetation greenness above normal in all parts of the county.**
	I. North	86.04	80.56	
	I. South	85.11	73.84	
TANA RIVER	**County**	97.39	98.96	**The vegetation greenness is above normal across the county.**
	Bura	80.47	81.98	
	Galole	111.19	115.81	
	Garsen	103.13	102.84	
KAJIADO	**County**	102.97	105.8	**The vegetation greenness is in the above normal range for the period.**
	K. Central	97.1	98.06	
	K. East	96.44	101.96	
	K. North	86.01	94.03	
	K. South	101.96	102.05	
	K. West	110.31	115.12	
LAIKIPIA	**County**	90.85	87.19	**Enhanced vegetation condition across all the sub counties with vegetation greenness above normal in all parts of the county.**
	L. East	88.02	87.96	
	L. North	94.52	91.02	
	L. West	85.34	79.66	
THARAKA NITHI	**County**	77.01	83.7	**The county and its sub counties is in above normal vegetation greenness.**
	Chuka	67.41	83.56	
	Maara	66.07	80.11	
	Tharaka	84.12	84.91	
WEST POKOT	**County**	98.45	101.9	**The vegetation greenness is above normal across the county.**
	Kacheliba	103.17	104.44	
	Kapenguria	98.43	107.24	
	Pokot South	88.23	97.17	
	Sigor	95.93	95.55	

ADMINISTRATIVE UNIT		VEGETATION GREENNESS		DROUGHT CATEGORIES/REMARKS		
COUNTY	**Sub County**	**VCI-3 month as at 24th February 2020**	**VCI-3 month as at 30th March 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**	83.07	94.75	**Enhanced vegetation condition across all the sub counties with vegetation greenness above normal in all parts of the county.**		
	Manyatta	78.47	87.82			
	Mbeere North	83.03	94.69			
	Mbeere South	87.97	99.49			
	Runyenjes	69.94	84.92			
KITUI	**County**	92.74	100.82	**The vegetation greenness is in the above normal range for the period.**		
	Kitui Central	90.02	101.06			
	Kitui East	97.88	105.53			
	Mwingi Central	92.3	96.74			
	Mwingi North	87.14	87.05			
	Mwingi West	93.83	108.6			
	Kitui Rural	89.92	103.98			
	Kitui South	92.69	103.68			
	Kitui West	96.34	109.19			
MAKUENI	**County**	92.38	102.65	**The county and its sub counties is in above normal vegetation greenness.**		
	Kaiti	101.53	105.17			
	Kibwezi East	84.74	97.5			
	Kibwezi West	90.08	101.9			
	Kilome	100.7	108.19			
	Makueni	96.3	106.17			
	Mbooni	98.26	106.85			
MERU	**County**	80.67	87.79	**The vegetation greenness is above normal across the county.**		
	Buuri	79.1	93.11			
	Central Imenti	72.4	83.65			
	Igembe Central	88.66	90.24			
	Igembe North	90.27	89.97			
	Igembe South	80.31	78.97			
	North Imenti	72.17	89			
	South Imenti	60.65	76.05			
	Tigania East	85.48	86.72			
	Tigania West	83.98	99.63			

ADMINISTRATIVE UNIT		VEGETATION GREENNESS		DROUGHT CATEGORIES/REMARKS
COUNTY	**Sub County**	**VCI-3 month as at 24th February 2020**	**VCI-3 month as at 30th March 2020**	
NYERI	**County**	75.62	86.96	**Vegetation greenness above normal in all parts of the county.**
	Kieni	74.53	85.36	
	Mathira	67.05	80.55	
	Mukurweini	97.79	106.61	
	Town	94.71	100.93	
	Othaya	74.8	86.81	
	Tetu	72.55	86.83	
KILIFI	**County**	86.02	84.45	**Enhanced vegetation condition across all the sub counties with vegetation greenness above normal in all parts of the county.**
	Ganze	88.74	89.5	
	Kaloleni	88.88	89.99	
	Magarini	84.99	80.38	
	Malindi	77.5	80.7	
	Kilifi-North	86.23	88.51	
	Rabai	85.38	93.87	
	Kilifi-South	91.07	100.29	
KWALE	**County**	91.52	97.41	**The vegetation greenness is in the above normal range for the period.**
	Kinango	91.99	106.65	
	Lungalunga	92.41	94.14	
	Matuga	88.67	90.54	
	Msambweni	89	92	
LAMU	**County**	89.42	90.74	**The county and its sub counties is in above normal vegetation greenness.**
	Lamu East	88	89.8	
	Lamu West	90.24	91.28	
TAITA TAVETA	**County**	96.84	105.7	**The vegetation greenness is above normal across the county.**
	Mwatate	101.94	107.2	
	Taveta	98.27	106.68	
	Voi	94.31	106.71	
	Wundanyi	102.11	113.42	
NAROK	**County**	86.95	91.18	**The vegetation greenness is in the above normal range for the period.**
	Narok-East	91.73	96.41	
	Emurua Dikirr	92.59	90.84	
	Kilgoris	85.85	87.39	
	Narok-North	77.74	83.4	
	Narok-South	86.02	92.75	
	Narok-West	90.66	93.31	

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

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

Figure 2.0: Drought Phase Classification