



NATIONAL DROUGHT MANAGEMENT AUTHORITY

National Drought Early Warning Bulletin

March 2020

KEY HIGHLIGHTS

- Most ASAL counties received unexpected off-season rains that were enhanced in comparison with the long term mean for the month.
- Sustained improvement in vegetation condition was observed across all ASAL counties as a result of the enhanced performance of the short rains season and the off-season rains received during the month of February. Consequently all the 23 arid and semi-arid counties are currently categorized in the above normal vegetation greenness class.
- Return distances to water for households have generally reduced in all the 23 ASAL counties. Similarly, in nearly all ASAL counties access to water for livestock is currently below the seasonal average.
- Across all the ASAL areas, higher availability of pasture and browse and lower return trekking distances between water points and grazing fields has led to general improvement in livestock body condition, which has in turn boosted overall livestock productivity including increased milk production.
- The above average performance of the short rains has led to a favourable crop production situation across the marginal agricultural counties. In most counties harvesting has already been completed with majority of the semi-arid counties reporting above average crop production.
- In almost 80 percent of the ASAL counties the terms of trade (ToT) were above or close to LTA in February 2020. An indication that household purchasing power as measured by the goat to maize terms of trade is broadly favorable due to high livestock prices.
- The nutrition status of children in most counties improved in February with most counties now on a stable or improving trend. This improvement was attributed to higher milk consumption in pastoral counties and improved dietary diversity due to availability of green vegetables and pulses in the marginal agricultural counties.
- 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.

Drought phase classification, February 2020

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

1.0. Drought status

1.1 Drought indicators

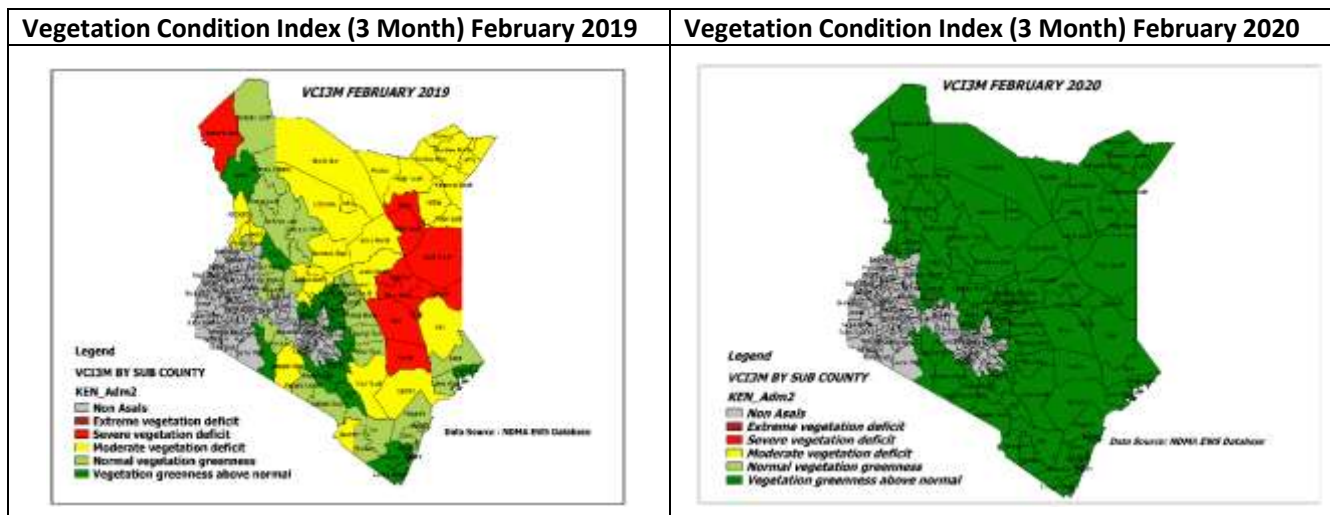
Rainfall

In February 2020, several ASAL counties received unexpected off-season rains. Ordinarily, February is a dry month but this year, most ASAL counties received enhanced rainfall in comparison with the long term mean for the month.

Vegetation condition

The month of February 2020 recorded sustained improvement in vegetation condition across all ASAL counties. This is as result of enhanced performance of the short rains season and offseason showers received during the month of February. Figure 1 compares the vegetation condition index (VCI) in February 2019 with that in February 2020. The February 2020, VCI map illustrates that as at end of February all the 23 arid and semi-arid counties recorded above normal vegetation greenness.

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



Water sources

In almost all ASAL counties water pans, dams, rivers, streams, ponds, springs and shallow wells were the main sources of water for both for domestic and livestock use in February. Most surface water sources were replenished by the off-season rains received during the month and dams and water pans are currently at 50 to 70 percent capacity. In general, water availability in most ASAL areas is above normal for the period.

Livestock production

Across all the ASAL areas, higher availability of pasture and browse and lower return trekking distances between water points and grazing fields has led to general improvement in livestock body condition, which has in turn boosted milk production and overall increased livestock productivity.

Pasture and browse condition

Current pasture and browse condition is good in nearly all the arid and semi-arid counties as illustrated in Table 1. The observed improvement in pasture and browse situation which is above normal for the month is attributed to the enhanced performance of the short rains. In many ASAL areas, the quality and quantity of both pasture browse is good and the available forage is projected to last for the next three months.

Table 1.0: Pasture and browse condition, February 2020

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

Livestock body condition

The above average performance of the short rains has enabled peak forage rejuvenation that has resulted to the good livestock body condition seen in most counties as shown in Table 2.

Table 2.0: Livestock body condition, February 2020

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

Milk production

In 15 ASAL counties milk production in February was higher than the maximum historical record for the month. For instance, average household milk production per day in Garissa, West Pokot, Marsabit, Laikipia, Wajir, and Narok was above the 2006 - 2019 long term mean by 92, 58, 36, 30, 26 and 19 percent respectively. The above normal milk production across counties was attributed to generally the improvement in livestock body condition owing to good availability of

water, pasture and browse. The trend in milk production in the 23 ASAL counties is displayed in Table 3.

Table 3.0: Milk production, February 2020

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

Cattle prices

As indicated in Table 4, enhanced market prices continued to be reported in cattle prices largely owing to the improved body condition as a result of adequate availability of forage and water. For instance, in Isiolo County the current average price for cattle was above the 2015 - 2019 average by 77 percent, while in Kajiado and Wajir average cattle prices were above LTA by 54 and 64 percent respectively.

However, in Baringo cattle prices fell by 17 percent from Kshs 22,269 in January to 18,407 in February. The decrease in average cattle prices in Baringo was attributed to disruption of livestock markets due to insecurity and imposition of a livestock quarantine which was implemented following an outbreak of Foot and Mouth Disease (FMD).

Table 4.0: Cattle prices, February 2020

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

Goat prices

In February, all ASAL counties reported close to or above LTA prices for goats that was occasioned by the prevalent good body condition for goats. For example, in West Pokot County the average price of a two-year old goat in February was Kshs 3,875 which was 46 percent above the three-year average price of Kshs 2,650. Similarly, current average prices for goats in Garissa, Samburu, Narok and Marsabit were above LTA for February by 43, 25, 24 and 19 percent respectively. Table 5 summarizes the trend in goat prices in February in the 23 ASAL counties.

Table 5.0: Goat prices, February 2020

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

Crop production

The main crops grown in the ASAL areas during the short rains season were maize, beans, green grams, cowpeas pigeon peas, millet and sorghum. The above average performance of the short rains has led to a favourable crop production situation across the marginal agricultural counties. In most counties harvesting has already been completed with majority of the marginal agricultural counties reporting above average crop production. For instance, total maize production is approximately 26 percent above the five-year average, which was attributed to above average area planted. Total cow pea production was 68 percent above average and green grams production ranged from 15 to 33 percent above average

In contrast, the wet conditions affected the performance of beans and production ranged from 25 to 38 percent below average. In addition, as a result of the extended rainy season post harvest losses related losses due to delayed harvesting, high moisture content in grains, quality loss, spoilage and rotting was reported in counties such as Kitui, Embu (Mbeere), Makueni and Taita Taveta.

Farmers were currently engaged in land preparation in readiness for the long rains cropping season.

Maize prices

In approximately 40 percent of the counties, the retail price of maize was above the 2015 - 19 average. For example, in Mandera 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. Likewise, in Makueni, Garissa, Taita Taveta, Isiolo and Samburu maize prices were above LTA by 22, 18, 17, 14 and 10 percent respectively. The high average maize price is attributed to poor crop harvest in the previous season which has led to limited maize stocks at household level and consequently creating a high demand of the maize in the local markets. Maize price trends in ASAL counties are presented in Table 6.

Table 6.0: Maize prices, February 2020

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

Access to water

The trend in distances walked by households to access water is provided in Table 7. In all ASAL counties, the short rains season significantly recharged water sources which has improved water availability and consequently access, resulting to decrease in average return distances to water points. For example, in Kitui, average return distances from households to water sources declined by 29 percent to stand at 3.2 km in February from 4.5 km in January. In Kwale, access to water for domestic use improved considerably as the distances to water sources reduced from 5.6 km in January to 2.8 km in February representing a 50 percent decrease.

However, in Tana River County, household trekking distances increased from 3.6 km in January to 7.4 km in February. The current distances are above the long term average of 4.8 km by 54 percent which is attributed to reduced recharge levels in open water sources combined with the high temperature currently being experienced across the county which has led to the drying up of some of the water pans.

Table 7.0: Distance from households to main water sources, February 2020

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

Average return distances to water for livestock in many counties has reduced as a result of the off season rains received in February. In most pastoral counties access to water for livestock was below the seasonal average. For example, compared to the long term average trekking distance for the month of February the current average distance for livestock in Isiolo was shorter by 84 percent. Also in Turkana County, the average trekking distance to water points for livestock of 5.7 km was 47 percent shorter than the normal distance of 10.7 km. In the same way, in Garissa, Samburu, Mandera, Wajir and Baringo average distance walked by livestock from grazing areas to watering points were below LTA by 75, 62, 58, 57 and 48 percent respectively. Table 8 shows the trend in the distance trekked by livestock in search of water.

Table 8.0: Distance from livestock grazing areas to main water sources, February 2020

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

Terms of trade

Terms of trade determine the purchasing power of households by providing an estimate of the number of kilograms of maize bought from sale of one goat. In almost 80 percent of the ASAL counties the terms of trade (ToT) were above or close to LTA in February 2020. An indication that household purchasing power as measured by the goat to maize terms of trade is broadly favorable due to high livestock prices. The terms of trade were highest in Embu (Mbeere), where the sale of a goat could fetch 160 kg of maize, which is nearly 31 percent above the five-year average. On the other hand, Turkana recorded the lowest ToT at 47 kg of maize in exchange of an average sized goat. The favourable terms of trade in most ASAL counties was attributed to the prevailing above average goat prices resulting from good body condition while the average price for maize has remained stable. Table 9 summarises the trend in the terms of trade.

Table 9.0: Terms of trade, February 2020

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

Health and nutrition

Table 10 shows the trend in the proportion of children at risk of malnutrition across the ASAL counties. The drought early warning system (EWS) monitors the proportion of children under five at risk of malnutrition, determined by a mid-upper arm circumference (MUAC) measurement. The nutrition status of children in most counties improved this month with over 70 percent of the counties now on a stable or improving trend. For example, in Marsabit County, the proportion of children under the age of five years who were at risk of malnutrition was 13.9 percent in February which was relatively similar in comparison with 14.1 percent posted in January. The proportion of

children at risk of malnutrition in Marsabit was less than 38 percent from that expected at this time of the year implying that the nutritional status of children was significantly better than normal. The improvement in the nutritional status of children could be largely attributed to increased food availability at household level from the recent harvests. Also in most pastoral areas, the improvement was attributed to improved food access as household purchasing power had increased compared with normal times.

Table 10.0: Children at risk of malnutrition (MUAC), February 2020

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

1.2 Drought phase classification

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, February 2020

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

2 Projected food security situation

According to the Kenya Meteorological department (KMD) forecast, most ASAL counties are likely to experience near-normal rainfall with a tendency to above-normal during the March - April - May (MAM) long rains season. The MAM rains will most likely support pasture and browse regeneration which is expected to sustain good livestock body conditions. Therefore, household and livestock water distances are expected to remain within the normal ranges.

Enhanced rainfall performance during the March to May period might translate to an increase in area planted which could result to above average long rains harvest. Market prices both for livestock and food commodities are likely to remain stable which will most probably transform to favourable terms of trade for livestock keepers. Owing to the expected good livestock body condition and stable calving rates, households will be able to produce and consume more milk which is likely to keep malnutrition rates in children in most pastoral areas at low levels.

However, there is likelihood of post-harvest losses especially in areas where harvesting is still ongoing. Desert locust invasion might also lead to crop losses in the marginal agricultural areas. Furthermore, enhanced rains might result to displacement, destruction of infrastructure and upsurge of water borne diseases in areas that are prone to flooding.

3 Recommendations

In view of the current drought and food security situation in ASAL counties, priority recommendation interventions by sector include:

Humanitarian assistance

- Provision of unconditional and conditional cash transfers.
- Food distribution in selected areas

Agriculture

- Step up measures to control the desert locust pest.
- Promotion of rain water harvesting technologies for crop production.
- Provision of farm inputs e.g. subsidized fertilizer and seeds in preparation for the MAM season.
- Promotion of appropriate post-harvest management practices.

Livestock

- Promote pasture establishment and conservation.
- Livestock disease surveillance and vector control interventions.
- Livestock restocking and breed improvement programmes.

Water

- Repair and desilting of dams and water pans.
- Rain water harvesting.
- Promote community and household water treatment technologies.
- Water infrastructure development and maintenance.

Health and nutrition

- Intensify health promotion campaigns
- Community sensitization on water hygiene and sanitation since most households are accessing water from unprotected sources.
- Scaling up health and nutrition emergency response.
- Capacity strengthening, Nutrition surveillance and coordination.




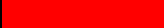

Education

- Provision of school meals.
- Construction and rehabilitation of classrooms and latrines.
- Provision of water storage facilities.
- Provision sanitary towels for girls.

Annex 1.0 Vegetation Condition Index (VCI-3 month) as at 24th February 2020

ADMINISTRATIVE UNIT		VEGETATION GREENNESS		DROUGHT CATEGORIES/REMARKS		
COUNTY	Sub County	VCI-3 month as at 27 th Jan 2020	VCI-3 month as at 24 th Feb 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	92.75	98.82	Following the rains received during the October to December short rains season and the off season rainfall experienced in January and February 2020, the condition of vegetation in all sub-counties is above normal.		
	Central	84.31	85.71			
	Eldama	74.7	71.66			
	Mogotio	95.62	97.55			
	North	84.29	91.05			
	South	91.12	97.09			
	Tiaty	100.86	110.51			
MANDERA	County	91.27	92.28	Enhanced vegetation condition across all the sub counties with vegetation greenness above normal in all parts of the county.		
	Banissa	91.19	88.11			
	M East	82.88	79.54			
	Lafey	91.41	91.82			
	M North	98.51	101.99			
	M South	90.27	95.82			
	M West	86.97	84.77			
TURKANA	County	92.39	102.4	The vegetation greenness is above normal across the county.		
	T Central	99.24	108.19			
	T. East	78.36	88.82			
	T. Loima	119.49	133.6			
	T. North	81.83	90.38			
	T. South	101.46	113.22			
	T. West	91.49	99.88			
MARSABIT	County	88.3	93.89	The vegetation greenness is in the above normal range for the period.		
	Laisaimis	92.17	101.5			
	Moyale	91.47	84.52			
	N. Horr	84.73	91.19			
	Saku	99.15	108.28			
WAJIR	County	83.15	83.69	The county and its sub counties is in above normal vegetation greenness.		
	W East	93.85	98.17			
	W.Eldas	71.64	66.52			
	W. North	92.8	94.64			
	W. South	77.63	77.46			
	W.Tarbaj	86.49	85.82			
	W West	86.52	91.22			
SAMBURU	County	85.6	96.66	The state of vegetation in all sub counties is above the normal range for the period.		
	S East	81.93	92.28			
	S. North	88.1	101.42			

	S. West	91.79	98.07			
ADMINISTRATIVE UNIT		VEGETATION GREENNESS		DROUGHT CATEGORIES/REMARKS		
COUNTY	Sub County	VCI-3 month as at 27 th Jan 2020	VCI-3 month as at 24 th Feb 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
GARISSA	County	74.31	77.88	The county and its sub counties is in above normal vegetation greenness.		
	Balambala	75.61	79.85			
	Daadab	66.33	66.6			
	Fafi	72.39	77.24			
	Ijara	86.57	89.96			
	Lagdera	73.02	77.77			
	Dujis	60.7	56.59			
ISIOLO	County	84.17	85.67	Enhanced vegetation condition across all the sub counties with vegetation greenness above normal in all parts of the county.		
	I. North	85.68	86.04			
	I. South	81.85	85.11			
TANA RIVER	County	89.64	97.39	The vegetation greenness is above normal across the county.		
	Bura	73.39	80.47			
	Galole	95	111.19			
	Garsen	100.09	103.13			
KAJIADO	County	90.72	102.97	The vegetation greenness is in the above normal range for the period.		
	K. Central	85.6	97.1			
	K. East	85.94	96.44			
	K. North	71.56	86.01			
	K. South	97.92	101.96			
	K. West	90.28	110.31			
LAIKIPIA	County	87	90.85	Enhanced vegetation condition across all the sub counties with vegetation greenness above normal in all parts of the county.		
	L. East	87.08	88.02			
	L. North	89.06	94.52			
	L. West	83.11	85.34			
THARAKA NITHI	County	70.52	77.01	The county and its sub counties is in above normal vegetation greenness.		
	Chuka	70.25	67.41			
	Maara	64.86	66.07			
	Tharaka	72.43	84.12			
WEST POKOT	County	89.8	98.45	The vegetation greenness is above normal across the county.		
	Kacheliba	90.72	103.17			
	Kapenguria	92.23	98.43			
	Pokot South	89.57	88.23			
	Sigor	86.23	95.93			
EMBU	County	78.74	83.07	Enhanced vegetation condition across all the sub counties with vegetation greenness above normal in all parts of the county.		
	Manyatta	68.91	78.47			
	Mbeere North	78.62	83.03			
	Mbeere South	84.22	87.97			

	Runyenjes	69.58	69.94			
ADMINISTRATIVE UNIT		VEGETATION GREENNESS				
COUNTY	Sub County	VCI-3 month as at 27 th Jan 2020	VCI-3 month as at 24 th Feb 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
KITUI	County	80.84	92.74	The vegetation greenness is in the above normal range for the period.		
	Kitui Central	84.75	90.02			
	Kitui East	82.95	97.88			
	Mwingi Central	83.96	92.3			
	Mwingi North	77.28	87.14			
	Mwingi West	85.2	93.83			
	Kitui Rural	85.93	89.92			
	Kitui South	78.72	92.69			
	Kitui West	86.42	96.34			
MAKUENI	County	86.62	92.38	The county and its sub counties is in above normal vegetation greenness.		
	Kaiti	96.52	101.53			
	Kibwezi East	76.03	84.74			
	Kibwezi West	83.76	90.08			
	Kilome	98.38	100.7			
	Makueni	94.46	96.3			
	Mbooni	91.28	98.26			
MERU	County	77.97	80.67	The vegetation greenness is above normal across the county.		
	Buuri	74.71	79.1			
	Central Imenti	72.23	72.4			
	Igembe Central	85.45	88.66			
	Igembe North	86.14	90.27			
	Igembe South	84.31	80.31			
	North Imenti	65.63	72.17			
	South Imenti	65.42	60.65			
	Tigania East	77.95	85.48			
	Tigania West	76.5	83.98			
NYERI	County	73.13	75.62	Vegetation greenness above normal in all parts of the county.		
	Kieni	72.46	74.53			
	Mathira	58.14	67.05			
	Mukurweini	88.36	97.79			
	Town	90.02	94.71			
	Othaya	79.05	74.8			
	Tetu	73.9	72.55			
KILIFI	County	86.32	86.02	Enhanced vegetation condition across all the sub counties with vegetation greenness above normal in all parts of the county.		
	Ganze	85.55	88.74			
	Kaloleni	85.52	88.88			

	Magarini	87.66	84.99			
	Malindi	81.07	77.5			
	Kilifi-North	82.25	86.23			
	Rabai	85.77	85.38			
	Kilifi-South	86.2	91.07			
KWALE	County	89.34	91.52	The vegetation greenness is in the above normal range for the period.		
	Kinango	89.67	91.99			
	Lungalunga	91.33	92.41			
	Matuga	86.23	88.67			
	Msambweni	83.7	89			
LAMU	County	87.73	89.42	The county and its sub counties is in above normal vegetation greenness.		
	Lamu East	84.72	88			
	Lamu West	89.47	90.24			
ADMINISTRATIVE UNIT		VEGETATION GREENNESS		DROUGHT CATEGORIES/REMARKS		
COUNTY	Sub County	VCI-3 month as at 27th Jan 2020	VCI-3 month as at 24th Feb 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
TAITA TAVETA	County	93.74	96.84	The vegetation greenness is above normal across the county.		
	Mwatate	98.28	101.94			
	Taveta	96.23	98.27			
	Voi	91.19	94.31			
	Wundanyi	95.92	102.11			
NAROK	County	81.27	86.95	The vegetation greenness is in the above normal range for the period.		
	Narok-East	91	91.73			
	Emurua Dikirr	89.49	92.59			
	Kilgoris	77.31	85.85			
	Narok-North	74.11	77.74			
	Narok-South	81.73	86.02			
	Narok-West	81.92	90.66			

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 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

