



NATIONAL DROUGHT MANAGEMENT AUTHORITY

National Drought Early Warning Bulletin

September 2019

Summary

The prevailing dry weather condition experienced during the month of August accelerated the drying up of water sources leading to increased distances to water sources for both livestock and domestic use. Consequently, the average distances to water sources for households and livestock recorded an increase compared to the month of July across the ASAL counties.

Currently, only eight out of the 23 arid and semi-arid (ASAL) counties are classified in the normal drought phase; nine are in the alert phase and six in the alarm phase. The trend is worsening in seven counties while four counties are on an improving trajectory as 12 counties recorded a stable trend. Therefore, preparation of sectoral response plans should be intensified to facilitate early drought response, as the dry conditions are likely to persist in September.

1 Drought status

1.1 Drought indicators

Rainfall

August was generally a dry month, particularly in counties like Marsabit, Garissa, Mandera, Wajir, Tana River, Tharaka, Kitui, Makueni and Kajiado. Sunny and dry weather conditions experienced in most ASAL areas led to faster reduction in water availability for both livestock and domestic use and continued to impact negatively on crop performance.

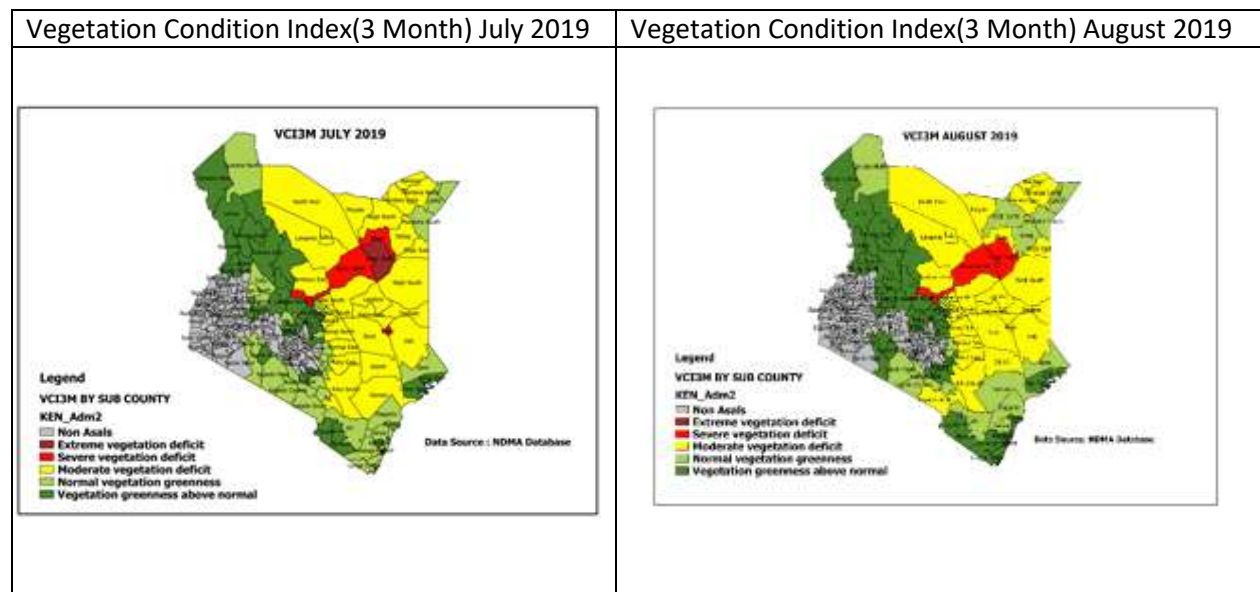
Vegetation condition

Figure 1 compares the vegetation condition in July and August 2019. It shows an improving situation in a number of ASAL counties such as Baringo, Laikipia, West Pokot, Turkana, Kilifi, Narok, Kwale and Lamu as result of light to moderate rainfall received in these areas in late July and early August.

The areas with the greatest vegetation deficit at present are:

- Severe deficit: - Wajir West and Isiolo North
- Moderate deficit: - Marsabit, Tana River, Garissa, Kitui, Isiolo, Wajir, Mandera North, Mandera West, Banissa (Mandera), Samburu East, Kajiado South Tharaka, Kibwezi East (Makueni), and Igembe North, Igembe Central and Igembe South (Meru)

Figure 1: Comparison of Vegetation Condition Index (VCI), July 2019 and August 2019



Livestock production

Pasture and browse condition

The current condition of pasture in most of the arid and semi-arid counties is classified as below normal due to poor regeneration owing to poor rainfall performance during the Mach – May long rains season. However, pasture and browse condition was relatively good in a few counties such as Baringo, Kilifi, Meru, Taita Taveta and West Pokot, which was associated with the cool conditions and occasional light rainfall received in these ASAL areas from June to August.

Table 1.0: Pasture and browse condition, August 2019

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

Livestock body condition

The current livestock body condition in many ASAL counties ranges from good to fair although the condition of livestock is expected to deteriorate in the next two months since pasture availability is likely to diminish while trekking distances to water sources might increase.

Table 2.0: Livestock body condition, August 2019

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

Milk production

During the month under review, average milk production went up in eight counties, remained stable in six while nine counties recorded a downward trend. In 15 counties: - Lamu, Isiolo, Embu (Mbeere), Baringo, Kajiado, Kitui, Makueni, Mandera, Marsabit, Narok, Tana River, Wajir, Tharaka Nithi (Tharaka), Garissa, Turkana and Nyeri (Kieni), current milk production was below the 2014 - 2018 long term average. The below-normal milk production was attributed to poor status of range resources, decline in livestock body condition and an increase in livestock migration thus in most pastoral areas only few lactating herds were available near homestead to provide milk to the households.

Table 3.0: Milk production, August 2019

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

Cattle prices

In nearly half of the ASAL counties, current market price for cattle are below the 2016 - 18 average price for the month of August. For instance, in Wajir, Marsabit, Turkana, Kitui and Embu the prevalent prices are below the average cattle prices for a similar period of the year by 37, 35, 32, 30 and 19 percent respectively. Below-normal cattle prices are attributed to low demand against a high number of cattle offered for sale and deteriorating cattle body condition which led to a drop in cattle prices.

Table 4.0: Cattle prices, August 2019

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

Goat prices

During the month of August, goat prices in most ASAL areas were mostly above average or close to LTA except in Turkana, Tharaka, Wajir, Garissa and Mandera where they were below the three-year average price. The below-normal goat prices in these counties was attributed to poor forage availability leading to reduction in body condition and hence a decline in their market value.

Table 5.0: Goat prices, August 2019

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

Livestock migration

Livestock migration in search of water and pasture was reported in several ASAL counties in August, which is not normal at this time of the year. For example, camel herds migrated to the

Tana Delta in Tana River County despite the prevalence of livestock pests in the area. Migration is occurring in border regions of pastoral areas, with some traversing to Ethiopia, Somalia, and Uganda, as well as to marginal agricultural areas of Meru, Laikipia, Kitui, and Kilifi. Resource-based conflict increased, especially in Samburu where high levels of in-migration has increased grazing pressure.

Livestock mortalities

No unusual mortalities of livestock were reported during the month of August 2019.

Crop production

Harvesting of long rains crops in marginal agricultural areas has been completed in most counties. Yields are poor and total crop production is 10-15 and 35-40 percent of average in south eastern (Kitui, Makueni, Mbeere, Tharaka and Meru North) and coastal marginal agricultural (Taita Taveta, Kwale, Kilifi and Lamu) counties respectively. Most areas experienced near to total maize and green grams crop failure. Maize production ranges between 1 and 10 percent of the five-year average across counties, with the exception of Meru (Meru North), where current production is 29 percent of the five-year average. Green gram production ranges between 1-9 percent of the five-year average. Most poor households have minimal food stocks from the harvest that are only likely to last through September.

Maize prices

In most counties the price of maize remained stable in August. However, the current maize prices are largely above average with over 80 percent of the counties recording prices above LTA.

Table 6.0: Maize prices, August 2019

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

Access to water

The average distances to water sources for households and livestock recorded an increase compared to the month of July in several ASAL counties. Some of the largest increase in distances to the main water points for households during the month were in the following counties: Samburu, Tana River, Marsabit, Mandera, Kilifi, Isiolo, Narok and Lamu. In Samburu, for example, average household distance to watering sources increased by 51 percent from 4.7 km in July to 7.1 km in

August. In Lamu, current average return distance from household to the main water sources increased from 2.1 km in July to 3.0 km, rising by 43 percent while in Marsabit distance to water sources from the household increased by 37 percent to 10.8 km from 7.9 km recorded in July. The trend in distances walked by households to access water is provided in Table 7.

Table 7.0: Distance to water sources for households, August 2019

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

The trend in the distance walked by livestock in search of water is illustrated Table 8. Compared with the previous month, the current trekking distance to water source from grazing areas increased in all counties except in Tharaka, West Pokot and Baringo. In addition, in close to 60 percent of the ASAL counties, access to water for livestock was more challenging in August compared with normal times, as animals had to walk slightly longer distances compared with the usual distances recorded in the 2014 - 2018 long-term average (LTA).

Table 8.0: Distance to water sources for livestock, August 2019

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

Increase in the average trekking distance to water sources for household and livestock is mainly attributed drying up of open water sources as a result of the dry weather conditions experienced in August 2018. Distances are expected to increase further in September.

Terms of trade

During the month under review, terms of trade (ToT) in most counties were unfavourable, implying that livestock producers in many ASAL counties were purchasing quantities of maize below seasonal averages from the sale of a medium size goat. This was occasioned by rising maize

prices while goat prices were either stabilizing or declining owing to the high volumes of goats being offered for sale.

However, current terms of trade in Kilifi, Narok, Taita Taveta and Kajiado were above the long-term average by 20, 9, 7 and 6 percent respectively. The favourable terms of trade were due to increase in the goat prices to levels above LTA. Table 9 shows the trend in the terms of trade (ToT) in ASAL counties.

Table 9.0: Terms of trade, August 2019

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

Health and nutrition

The proportion of children under five at risk of malnutrition based on mid upper arm circumference (MUAC<135mm) during the month of August 2019 was above the long term average in nearly half of the ASAL counties except in West Pokot, Embu, Isiolo, Turkana, Tharaka Nithi, Taita Taveta, Meru, Kajiado, Kilifi, Laikipia and Garissa. The declining nutrition status recorded in in August in comparison to the 2014-2018 LTA was attributed to decrease in both milk production and consumption combined with reduction in households purchasing power. Mandera County had the highest percentage of children reported to be at risk of malnutrition, at 29.4 percent followed by Samburu - 28.4, Marsabit - 19.5, Baringo - 18.0, Meru - 17.3, Garissa - 16.6 and Turkana - 15.6 percent. Table 10 summarizes the trend in MUAC rates across the ASAL counties.

Table 10.0: Children at risk of malnutrition (MUAC), August 2019

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

1.2 Drought phase classification

Table 4 shows the status and trend in drought phase classification in the 23 ASAL counties. There are currently eight counties where drought conditions are considered normal, 10 in the alert phase, and six in the alarm phase. The trend is worsening in seven counties while four and 12 counties recorded an improving and stable trend respectively.

Table 4.0: Drought phase classification, August 2019

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

2 Projected food security situation

- September is normally a dry month over most parts of the country. The forecast for September 2019 indicates that nearly all arid and semi-arid counties are expected to be sunny and dry for much of the month. There is also an increased likelihood for hotter-than-normal temperatures in September which could result in high evapotranspiration rates hence a faster than normal drying up of pasture and open water sources.
- Forage and water sources are expected to become depleted due to the poor 2018 short rains. Consequently distances from grazing areas to water sources will likely increase to above-average levels, contributing to deterioration in livestock body condition and leading to earlier-than-normal migration to dry season grazing areas in mid to late September. This is anticipated to reduce household access to milk.
- The current favourable goat-to-staples terms-of-trade is projected to be maintained as a result of the above-average 2019 long rains maize harvest expected from high and medium potential agricultural production areas in western Kenya, which will likely keep maize prices at below average amount.

3 Recommendations

- Close monitoring and activation of sectoral response plans to facilitate early response in the six counties that are in the alarm phase and 10 counties in the alert drought stage.
- Activation of rapid response team in the water sector to support speedy repair of broken water systems and prepositioning of fast moving spare parts.
- Provision of food assistance and cash transfer interventions to vulnerable households.
- Rehabilitation and maintenance of strategic water facilities.
- Provision of livestock feeds and supplements to salvage milking and core breeding herd.
- Support integrated medical outreaches to facilitate screening of pregnant and lactating women (PLW) and children under the age of 5 years.
- Provision of fuel subsidies for motorised boreholes.
- Livestock disease surveillance and enhanced animal health services.
- Promote commercial destocking across ASAL counties to support pastoralists sell their animals before the value of their livestock start falling.
- Close monitoring of livestock movement in search of pasture and water and support community peace dialogue and resource use agreements in conflict prone areas.
- Prepositioning of farm inputs in preparation for the October to December short rains season.

Annex 1.0 Vegetation Condition Index (VCI-3 Month) as at 25th August 2019

ADMINISTRATIVE UNIT				DROUGHT CATEGORIES/REMARKS		
COUNTY	Sub County	VCI-3 month as at 29 th July 2019	VCI-3 month as at 25 th August 2019	Color	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	56.01	84.21	The county and its sub counties is in above normal vegetation greenness. The situation has improved compared to the previous month of July. The county experienced offseason showers from July that has improved the vegetation condition for the county.		
	Central	39.37	72.3			
	Eldama	40.87	74.64			
	Mogotio	64.39	88.07			
	North	48.02	76.57			
	South	58.92	85.66			
	Tiaty	61.3	89.28			
MANDERA	County	30.68	37.79	The county has recorded an improvement to normal vegetation greenness as compared to the previous moderate vegetation deficit in the month of July with all of its sub counties a recording a slight improvement. Significant improvement in Mandera North and Mandera West.		
	Banissa	25.44	30.92			
	M East	36.5	40.29			
	Lafey	40.95	45.81			
	M North	23.5	30.94			
	M South	36.08	44.3			
	M West	24.88	34.42			
TURKANA	County	50.32	63.3	Significant improvement for the county and its sub counties having recorded normal vegetation greenness. This was due to offseason showers received during the month. Improvement in Turkana North which is still experiencing a normal vegetation greenness		
	T Central	67.14	92.29			
	T. East	57.01	76.49			
	T. Loima	55.38	64.61			
	T. North	35.22	47.5			
	T. South	60.11	74.12			
	T. West	50.22	56.23			
MARSABIT	County	23.39	28.25	The county and its sub counties has slightly improved although still at moderate vegetation deficit. Improvement noted across the sub counties.		
	Laisaimis	22.83	26.65			
	Moyale	20.24	23.69			
	N. Horr	24.29	30.24			
	Saku	27.44	29.39			
WAJIR	County	23.11	29.4	Improvement noted across the county and all sub counties. The entire county is in moderate vegetation deficit. Significant improvement noted in Wajir North and Wajir Tarbaj to normal vegetation greenness while Wajir Eldas significantly improved to moderate vegetation deficit due to good offseason showers. Although Wajir West remained in severe vegetation deficit.		
	W East	26.83	33.34			
	W.Eldas	15.78	24.39			
	W. North	31.9	42.28			

	W. South	22.45	26.39																			
	W.Torbaj	30.64	38.43																			
	W West	9.69	13.82																			
SAMBURU	County	41.29	45.53	The county remains in normal vegetation greenness with Samburu east in moderate vegetation deficit while Samburu north and Samburu west in Vegetation greenness above normal.																		
	S East	27.77	25.02																			
	S. North	54.72	62.69																			
	S. West	50.03	70.13																			
ADMINISTRATIVE UNIT				DROUGHT CATEGORIES/REMARKS																		
COUNTY	Sub County	VCI-3 month as at 29th July 2019	VCI-3 month as at 25th August 2019	<table border="1"> <thead> <tr> <th>Color</th> <th>VCI values (3-month)</th> <th>Drought Category</th> </tr> </thead> <tbody> <tr> <td style="background-color: #008000;"></td> <td>≥50</td> <td>Vegetation greenness above normal</td> </tr> <tr> <td style="background-color: #90EE90;"></td> <td>>=35 - <50</td> <td>Normal vegetation greenness</td> </tr> <tr> <td style="background-color: #FFFF00;"></td> <td>>=20 - <35</td> <td>Moderate vegetation deficit</td> </tr> <tr> <td style="background-color: #FF0000;"></td> <td>>=10 - <20</td> <td>Severe vegetation deficit</td> </tr> <tr> <td style="background-color: #800000;"></td> <td><10</td> <td>Extreme vegetation deficit</td> </tr> </tbody> </table>	Color	VCI values (3-month)	Drought Category		≥50	Vegetation greenness above normal		>=35 - <50	Normal vegetation greenness		>=20 - <35	Moderate vegetation deficit		>=10 - <20	Severe vegetation deficit		<10	Extreme vegetation deficit
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	<10	Extreme vegetation deficit																				
GARISSA	County	28.72	30.47	The county remains in moderate vegetation deficit with Dujis significantly improving to moderate vegetation deficit from the previous severe vegetation deficit in July.																		
	Balambala	30.56	32.17																			
	Daadab	28.33	31.17																			
	Fafi	25.78	26.16																			
	Ijara	39.27	40.3																			
	Lagdera	22.85	27.49																			
	Dujis	16.27	21.02																			
ISIOLO	County	18.3	20.6	Significant improvement within the county to moderate vegetation deficit from severe vegetation deficit in July. All sub counties improved though remained same category.																		
	I. North	13.27	15.8																			
	I. South	26	27.93																			
TANA RIVER	County	26.94	30.45	The county and all sub counties slightly improved although remained at moderate vegetation deficit. Significant improvement in Garsen to normal vegetation greenness from the previous moderate vegetation deficit.																		
	Bura	21.94	25.3																			
	Galole	23.77	25.99																			
	Garsen	33.16	37.62																			
KAJIADO	County	43.28	44.03	Improvement noted across the county with most sub counties remaining at normal conditions. Significant improvement in Kajiado North, while Kajiado South dropped to moderate vegetation deficit from the previous Normal vegetation greenness																		
	K. Central	47.71	41.45																			
	K. East	39.37	42.35																			
	K. North	42.64	56.16																			
	K. South	37.36	25.6																			
	K. West	47.27	37.48																			
LAIKIPIA	County	51.2	72.22	The county remained in above normal vegetation. Significant improvement noted in Laikipia West due to good off season showers received during the month of July.																		
	L. East	58.31	73.16																			
	L. North	55.35	73.52																			
	L. West	40.01	69.32																			

THARAKA NITHI	County	39.02	43.11	The county remained in normal vegetation greenness drought conditions with.		
	Chuka	59.91	71.03			
	Maara	60.58	73.36			
	Tharaka	24.27	22.92			
WEST POKOT	County		73.44	The county and all sub counties remained at above normal vegetation condition.		
	Kacheliba	54.53	74.66			
	Kapenguria	57.49	73.87			
	Pokot South	54.42	68.7			
	Sigor	50.51	73.71			
EMBU	County	51.59	58.65	The county and all sub counties remained at above normal vegetation condition		
	Manyatta	53.36	68.72			
	Mbeere North	55.73	50.28			
	Mbeere South	46.69	56.57			
	Runyenjes	55.42	74.09			
ADMINISTRATIVE UNIT						
COUNTY	Sub County	VCI-3 month as at 29th July 2019	VCI-3 month as at 25th August 2019	Color	VCI values (3-month)	Drought Category
					≥50	Vegetation greenness above normal
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					>=20 - <35	Moderate vegetation deficit
					>=10 - <20	Severe vegetation deficit
					<10	Extreme vegetation deficit
KITUI	County	31.17	32.15	The county remained in moderate vegetation deficit with some of its sub counties like, Mwingi West, and Kitui west remaining in normal vegetation conditions. Kitui Central and Kitui Rural significantly improved to above normal condition.		
	Kitui Central	49.28	54.7			
	Kitui East	33.71	34.04			
	Mwingi Central	27.62	25.74			
	Mwingi North	28.8	26.99			
	Mwingi West	46.8	46.54			
	Kitui Rural	47.07	54.04			
	Kitui South	28.25	30.92			
	Kitui West	41.09	43.85			
MAKUENI	County	45.88	50.84	Significant improvement with the county to above normal conditions from normal vegetation greenness. Most sub counties are at above normal except Kibwezi East and Kibwezi west at that is in moderate conditions and normal vegetation conditions respectively.		
	Kaiti	65.82	78			
	Kibwezi East	33.72	34.63			
	Kibwezi West	41.4	46.6			
	Kilome	60.96	65.43			
	Makueni	47.29	54.49			
	Mbooni	60.83	68.64			

MERU	County	42.81	48.54	The county remained at normal drought conditions however some sub counties like Igembe Central, North and South remained in moderate vegetation deficit.		
	Buuri	53.1	65.92			
	Central Imenti	61.68	68.07			
	Igembe Central	29.26	31.35			
	Igembe North	27.53	27.07			
	Igembe South	33.06	31.34			
	North Imenti	66.87	72.57			
	South Imenti	57.52	70.74			
	Tigania East	37.3	42.85			
	Tigania West	39.52	44.16			
NYERI	County	62.88	78.18	The vegetation greenness is above normal across the entire county.		
	Kieni	61.01	74.85			
	Mathira	63.18	81.82			
	Mukurweini	71.03	86.35			
	Town	79.12	91.5			
	Othaya	57.86	77.13			
	Tetu	65.24	81.44			
KILIFI	County	39.08	47.11	The county is at normal vegetation conditions. There is an improvement in all sub counties.		
	Ganze	38.82	44.31			
	Kaloleni	55.45	57.33			
	Magarini	36.45	44.72			
	Malindi	49.52	56.44			
	Kilifi-North	38.91	54.38			
	Rabai	40.57	51.49			
	Kilifi-South	40.45	60.28			
KWALE	County	46.12	54.23	Significant improvement noted across the county from normal drought conditions to above normal conditions.		
	Kinango	47.23	52.14			
	Lungalunga	46.51	56.23			
	Matuga	42.95	59.56			
	Msambweni	39.03	55.89			
LAMU	County	51.27	58.57	Improvement in both county and sub counties although all remained at above normal drought conditions.		
	Lamu East	51.77	59.6			
	Lamu West	50.99	57.97			
ADMINISTRATIVE UNIT				DROUGHT CATEGORIES/REMARKS		
COUNTY	Sub County	VCI-3 month as at 29 th July 2019	VCI-3 month as at 25 th August 2019	Color	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	53.08	55.02	County remained at above normal vegetation greenness with Voi at Normal vegetation greenness.		
	Mwatate	60.53	58.95			
	Taveta	76.5	74.44			
	Voi	40.02	45.03			
	Wundanyi	65.3	62.99			
NAROK	County	49.89	65.56	The county improved from normal drought conditions to above normal vegetation condition. Significant improvement noted in Narok-North and Narok-South at above normal condition from normal vegetation condition recorded last month.		
	Narok-East	50.33	63.02			
	Emurua Dikirr	73.54	87.43			
	Kilgoris	53.36	68.23			
	Narok-North	45.02	66.96			
	Narok-South	42.58	53.26			
	Narok-West	55.87	74.68			

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

