



NATIONAL DROUGHT MANAGEMENT AUTHORITY

National Drought Early Warning Bulletin

October 2019

KEY HIGHLIGHTS

- Most ASAL counties experienced generally sunny and dry weather conditions during the month of September which led to reduced pastures for livestock and an increase in the average return distance to water sources for both livestock and domestic use.
- Majority of the ASAL counties reported fair to poor body condition for cattle and good to fair condition for goats while at the same time a reduction in milk production in September in comparison to August 2019 was observed with milk production in nearly 70 percent of the ASAL counties remaining below the long term average production level.
- During the month under review, the number of counties in the alarm drought phase increased to eight from six in August. An additional seven counties are currently at the alert drought stage. Counties classified in the alarm drought phase include: Wajir, Mandera, Garissa, Marsabit, Isiolo, Kitui, Embu (Mbeere) and Tharaka Nithi (Tharaka).
- The decline in milk production was attributed to decrease in pasture and browse availability coupled with longer than average trekking distances from grazing areas to water sources.

Drought phase classification, September 2019

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

1.0. Drought status

1.1 Drought indicators

Rainfall

Generally sunny and dry weather conditions prevailed over most ASAL counties during the month of September 2019, which is normal at this time of the year. However, unusual off season rains were received in a few counties such as Baringo, Laikipia, West Pokot, Taita Taveta and Lamu during the month.

Vegetation condition

Figure 1 compares the vegetation condition index (VCI) in September 2019 with that in August 2019. The map shows that as result of the off-season rainfall received in late August and early September the condition of vegetation in most ASAL counties has improved compared to last month. However, in a few counties the drought situation has persisted, particularly in Samburu (Samburu East), Isiolo (Isiolo North) and Tharaka Nithi (Tharaka), Marsabit, Wajir, Garissa, Isiolo, Tana River and Kitui, Mandera (Banissa and Mandera North), Meru (Igembe Central, Igembe North and Igembe South) and Makueni (Kibwezi East).

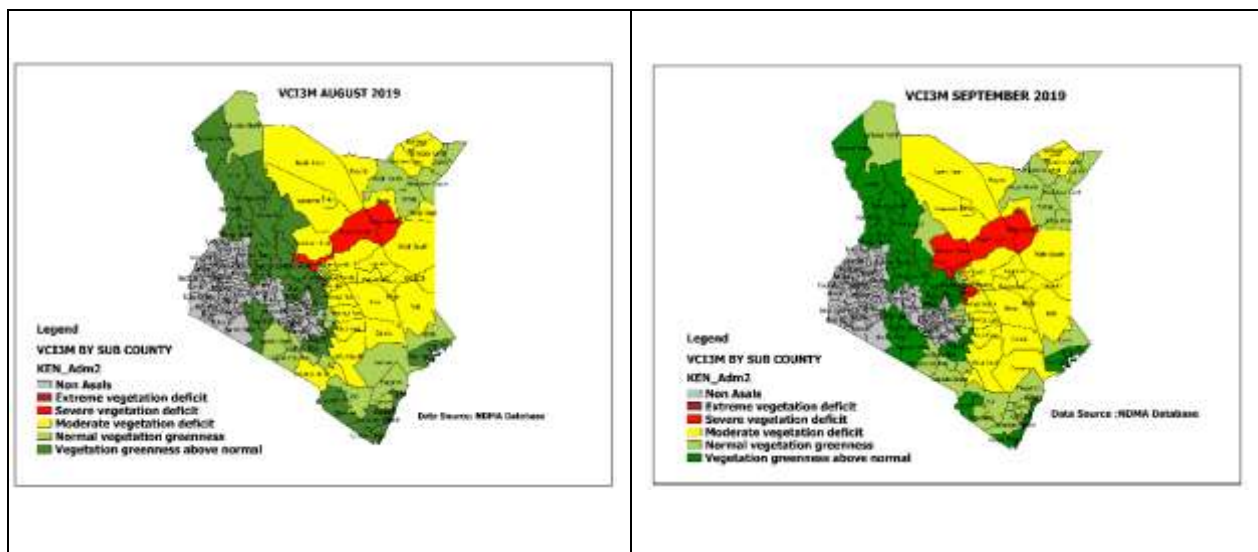
According to the detailed VCI data as at 30th September 2019 contained in Annex 1 most counties are currently classified in the above-normal and normal vegetation greenness category with only about 40 percent of the counties at present experiencing either severe or moderate vegetation deficit.

Severe vegetation deficit: Currently, no county is classified in the severe vegetation deficit band. However, the following three counties have some of their sub-counties in the severe vegetation deficit category; Samburu (Samburu East), Isiolo (Isiolo North) and Tharaka Nithi (Tharaka)

Moderate vegetation deficit: Counties in the moderate vegetation deficit class are; Marsabit, Wajir, Garissa, Isiolo, Tana River and Kitui. Counties with either above-normal or normal vegetation greenness which have some of their sub-counties in the moderate vegetation deficit band include; Mandera (Banissa and Mandera North), Meru (Igembe Central, Igembe North and Igembe South) and Makueni (Kibwezi East)

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

Vegetation Condition Index (3 Month) Aug 2019	Vegetation Condition Index (3 Month) Sept 2019
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Livestock production

Livestock production indicators recorded a slight improvement during the month of September. Body condition and milk production in some ASAL counties worsened when compared with the previous month and the long term average. The deterioration in livestock body condition was attributed to a decline in pasture and browse availability and increase in the trekking distances from grazing fields to water points.

Pasture and browse condition

The current condition of pasture and browse in most of the arid and semi-arid counties was categorized as poor and generally, pasture situation in September was described as below normal compared to a similar period of the year. Deteriorating pasture condition could be attributed to the prevailing dry and hot weather condition observed during the month under review. In Samburu, for example, out of the sampled key informants, 65 percent responded that pasture was poor while 18 percent classified the state of pasture as fair. In Turkana, most areas in the pastoral and fisheries livelihood zones exhibited pasture whose condition was generally poor, while in Garissa 92 percent of the sampled communities reported poor pasture condition with 8 percent reporting fair pasture condition.

Table 1.0: Pasture and browse condition, September 2019

Pasture			Browse		
Poor	Fair	Good	Poor	Fair	Good

Isiolo Kajiado Kitui Makueni Mandera Samburu Tharaka Wajir Nyeri (Kieni) Turkana Embu (Mbeere) Garissa Meru (Meru North)	Laikipia Tana River Kwale Taita Taveta Marsabit	Baringo Narok Lamu Kilifi West Pokot	Isiolo Kitui Makueni Mandera Samburu Tharaka Nithi Wajir Nyeri (Kieni) Kilifi Embu (Mbeere) Garissa Meru (Meru North)	Kajiado Kwale Laikipia Tana River Taita Taveta Turkana Marsabit	Baringo Narok Lamu West Pokot
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Livestock body condition

Most ASAL counties reported fair to poor body condition for cattle and good to fair condition for goats. Overall, in comparison to the livestock body condition observed in August, a negative trend was recorded during the month of September for both cattle and goats. The decline in the livestock body condition was attributed to decrease in pasture and browse availability coupled with longer than average trekking distances from grazing areas to water sources.

Table 2.0: Livestock body condition, September 2019

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

Milk production

Majority of the counties recorded a decrease in milk production in September in comparison to August 2019 with production in nearly 70 percent of the ASAL counties remaining below the long term average. For instance, in Kajiado, milk production reduced in September to reach 1.9 litres per day per household compared to August when households produced 3.0 litres a day. The current milk production level in Kajiado is 61 percent below LTA for similar period of the year. In Kitui, average daily milk production per household declined by 46 percent to stand at 0.7 litres in September from 1.3 litres in August which is 44 percent lower than LTA. In Mandera, average household milk production declined by 50 percent compared to the preceding month and was 83 percent below LTA. The drop in milk production was attributed to the longer than normal trekking distance in search of water and deteriorating forage condition.

Table 3.0: Milk production, September 2019

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

Cattle prices

In about 60 percent of the ASAL counties current cattle prices are above the three-year average price of cattle for the month of September which is attributed to low volumes of cattle being offered for sale because most herders are shying away from the market as they are wary that their livestock will not fetch good prices since majority of the cattle are in fair to poor body condition. However, owing to the effects of drought, cattle prices are below LTA in a number of ASAL counties such as Marsabit, Kitui, Makueni, Embu (Mbeere) and Tharaka by 38, 31, 25, 19 and 14 percent respectively.

Table 4.0: Cattle prices, September 2019

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

Goat prices

During the month of september goat prices in most ASAL areas were above average or close to LTA except in about 30 percent of the counties such as Garissa, Mandera, Turkana, Marsabit, Wajir, Nyeri and Tharaka where they were below the three-year average price due to below average forage and poor body condition.

Table 5.0: Goat prices, September 2019

Indicator	Current status			Trend		
	Above LTA	At LTA	Below LTA	Improving	Stable	Worsening

Goat Prices	Kajiado Kilifi Kwale Laikipia Lamu Narok Taita Taveta	Baringo Embu (Mbeere) Isiolo Kitui Makueni Meru North Samburu Tana River West Pokot	Garissa Mandera Nyeri (Kieni) Tharaka Turkana Wajir Marsabit	Kilifi Kwale Lamu West Pokot	Baringo Embu (Mbeere) Laikipia Makueni Mandera Meru North Narok Samburu Taita Taveta Tana River Tharaka Nithi Turkana Marsabit	Garissa Isiolo Kajiado Kitui Nyeri (Kieni) Wajir
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Livestock migration

Livestock migration was reported in several ASAL counties in September. For example, livestock from Tana River were moving to Kilifi County while at the same time some livestock were reported to have moved from Kilifi to Kwale and Tsavo East National Park. The migration of livestock to Kilifi was causing a lot of tension between livestock keepers and farmers along River Sabaki. In Kajiado, cattle from Kajiado South migrated southwards to Chylu Hills and Tsavo National Park, while those from Ewaso Kedong had moved to Narok, Nakuru and Kiambu Counties. In Marsabit, livestock from Laisamis, Korr, Merille, Logologo migrated to Gudas, Dedertu, Sabarwawa and Kom in Isiolo. Those in Farakoren, Ngurnit, Illaut, and South Horr have moved to Hafare, Torider and Baragoi in Samburu County while livestock from Sarima, Kargi, Olturot were concentrated in Mt Kulal. In Moyale sub-county livestock from Golbo and Butiye wards have out-migrated towards Wajir North (Lakole, Basir, Arbijan, Bute), Southern Ethiopia and Waso in Isiolo County. In Saku sub-county, most of the livestock especially cattle have migrated towards Jaldesa, Kubiqallo, Lalesa and Baragoi.

Livestock mortalities

In most ASAL counties disease incidences and cases of livestock deaths reported during the month of September 2019 were within the usual seasonal ranges. However, suspected cases of drought related livestock deaths were reported in Ikutha and Athi in Kitui South sub-county. In Marsabit, livestock deaths were reported in Moyale sub-county in Dabel, Badanrero, Dambala Fachana, Adadi, Wahegodha and Sololo Makutano for cattle and small stock due to drought especially amongst the kids and calves. In addition, 357 and 500 small stock in Teso and Dabel died as a result of heavy rains received as the livestock were already weak and might have suffered hypothermia. In North Horr sub County mortalities were reported in Balesa, Gas and Qorqa for small stock due to the severe drought.

Crop production

Land preparation is ongoing in nearly all the marginal agricultural counties in readiness for the short rains season. In Makueni, harvesting of pigeon peas was still ongoing in the mixed farming livelihood zone although the yields were largely below average.

Maize prices

In most counties the price of maize remained stable in September. However, the current maize prices are largely above average with about 70 percent of the counties recording prices above LTA due to high demand as most households were depending on markets for their maize requirements.

Table 6.0: Maize prices, September 2019

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

Access to water

Water availability across ASAL counties continued to worsen during the month under review. For instance, the average return distance for households in Embu (Mbeere) increased from 7.9 km in August to 10.5 km in September which is an increase by 33 percent. In Kajiado, the average distance to water sources for households increased by 14 percent to 7.2 km in September from 6.3 km in August which was also above the long term mean of 5.6 km by 29 percent. In Turkana, the average distance to water sources for households increased by 24 percent to 4.7 km in September from 3.8 km in August while in Kwale, the distance walked by households to water points increased from 4 km in August to 4.6 km in September which was higher than the normal distance expected for this time of the year by 59 percent. The increase in distances to water points for households was mainly attributed to drying up of most surface water sources such as dams and water pans, breakdown of boreholes and water rationing for households with the piped water. The trend in distances walked by households to access water is provided in Table 7.

Table 7.0: Distances from households to main water sources, September 2019

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

The trend in the distance trekked by livestock in search of water is illustrated Table 8. Generally, distances to water points for livestock are currently longer than normal for the time of year in nearly 70 percent of the ASAL counties. For example, in Lamu County return distance for

livestock from grazing areas to watering points increased considerably by a proportion of 63 percent to 7 km in September from 4.3 km in August which is also above the long term mean of 3.4 km by 106 percent. in Embu (Mbeere) return distance for livestock from grazing sites to water sources increased by 29 percent to 12.3 km in September from 9.5 km in August. Likewise, in Turkana, distance covered by livestock to water sources increased by 39 percent from 6.1 km in August to 8.5 km in September while in Kwale there was a 22 percent increase in the distance livestock walked from grazing areas to watering points from 4.6 km in August to 5.6 km in September. In addition, the distance trekked by livestock in Kwale was higher than average in comparison to the 2014-2018 LTA of 4.6 km by a margin of 22 percent. The worsening trend was as result of pasture scarcity in areas adjacent to water sources, drying up of open water sources combined with non-functionality of some water structures such as boreholes.

Table 8.0: Distances from livestock grazing areas to main water sources, September 2019

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

Terms of trade

Table 9 shows the trend in the terms of trade (ToT) in ASAL counties. The terms of trade were unfavourable in most ASAL counties with the current ToT in 15 counties remaining below LTA while in nine counties the ToT are showing a downward trend. The unfavourable terms of trade are attributed to declining goat prices while the price of maize had either increased or remained stable.

Table 9.0: Terms of trade, September 2019

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

Health and nutrition

The proportion of children under five at risk of malnutrition based on mid upper arm circumference (MUAC<135mm) as at September 2019 was above or close to the long term average in majority

of the ASAL counties except in Turkana, West Pokot, Garissa, Isiolo, Taita Taveta, Kilifi, Laikipia and Tharaka Nithi (Table 10). Reduced milk availability for consumption by children under five because of the effect of the prevailing drought coupled with inadequate food intake and poor child care practices were the main reasons for the high malnutrition rates.

Table 10.0: Children at risk of malnutrition (MUAC), September 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>	
MUAC	Baringo Embu Kwale Lamu Mandera Meru Samburu Tana River Wajir	Kajiado Kitui Makueni Narok Marsabit Nyeri	Garissa Isiolo Kilifi Laikipia Taita Taveta Tharaka Nithi Turkana West Pokot	Baringo Kilifi Kwale Narok Taita Taveta	Garissa Kitui Samburu Turkana West Pokot	Embu Kajiado Lamu Mandera Tana River Wajir Tharaka Nithi	Isiolo Laikipia Makueni Meru Nyeri Marsabit

1.2 Drought phase classification

On average, most ASAL counties experienced generally sunny and dry weather conditions during the month of September which led to reduced pastures for livestock and an increase in the average return distance to water sources for both households and livestock and as result, compared to the previous month most areas recorded a declining trend in livestock body condition and milk production.

Currently the drought status is categorized as follows:

- Normal, 8 counties;
- Alert, 7 counties;
- Alarm, 8 counties.

In terms of trend, the situation is as follows:

- Worsening in 18 counties;
- Stable in 4 counties;
- Improving in 1 county.

Table 11 shows the status and trend in drought phase classification in the 23 ASAL counties.

Table 11.0: Drought phase classification, September 2019

<i>Drought status</i>	<i>Trend</i>		
	<i>Improving</i>	<i>Stable</i>	<i>Worsening</i>
Normal	Lamu	Laikipia Narok Baringo West Pokot	Kwale Samburu Taita Taveta

<i>Alert</i>			Kajiado Makueni Nyeri (Kieni) Meru (Meru North)	Tana River Turkana Kilifi
<i>Alarm</i>			Wajir Marsabit Mandera Embu (Mbeere) Tharaka Nithi (Tharaka)	Garissa Isiolo Kitui
<i>Emergency</i>				
<i>Recovery</i>				

2 Projected food security situation

According to the forecast for the October-November-December (OND) 2018 short rains season, much of the country is likely to experience average to above average rainfall. In addition, the distribution of the OND rainfall both in time and space is expected to be good over most areas. The enhanced rainfall is expected to support regeneration of both pasture and browse; and improve water availability which is likely to result in increased livestock productivity in the ASAL counties. Good crop performance is expected across the country which is likely to exhibit improved crop production in the marginal agricultural counties and agro pastoral areas, as a result of the forecasted good rainfall.

3 Recommendations

- Close monitoring and activation of sectoral response plans to facilitate early response in the eight counties that are in the alarm phase and seven counties in the alert drought stage.
- 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.
- Livestock disease surveillance and enhanced animal health services.
- 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 30th September 2019

ADMINISTRATIVE UNIT		VEGETATION GREENNESS		DROUGHT CATEGORIES/REMARKS		
COUNTY	Sub County	VCI-3 month as at 25 th Aug 2019	VCI-3 month as at 30 th Sep 2019	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	84.21	86.79	The county and its sub counties is in above normal vegetation greenness. The above normal vegetation condition is as result of light showers received during the month of September. Timely onset of short rains in October is likely to improve the state of vegetation further.		
	Central	72.3	85.87			
	Eldama	74.64	80.71			
	Mogotio	88.07	89.54			
	North	76.57	81.9			
	South	85.66	90.96			
	Tiaty	89.28	87.67			
MANDERA	County	37.79	36.62	County experiencing moderate vegetation deficit in Banissa and Mandera North sub-counties while all other sub-counties are experiencing normal vegetation condition for the period.		
	Banissa	30.92	32.38			
	M East	40.29	36.5			
	Lafey	45.81	40.36			
	M North	30.94	29.35			
	M South	44.3	43.97			
	M West	34.42	35.59			
TURKANA	County	63.3	58.02	The county and its sub counties experiencing normal to above normal vegetation greenness condition.		
	T Central	92.29	87.04			
	T. East	76.49	67.77			
	T. Loima	64.61	56.65			
	T. North	47.5	46.48			
	T. South	74.12	62.98			
	T. West	56.23	52.67			
MARSABIT	County	28.25	28.83	Moderate vegetation deficit across the entire county hence need for close monitoring to assess the drought impact on livelihoods.		
	Laisaimis	26.65	26.61			
	Moyale	23.69	27.46			
	N. Horr	30.24	30.27			
	Saku	29.39	31.56			
WAJIR	County	29.4	29.37	The county is experiencing moderate vegetation deficit with Wajir West most affected being in the severe vegetation deficit band. Wajir East, Wajir North and Tarbaj have normal vegetation condition.		
	W East	33.34	39.4			
	W.Eldas	24.39	22.08			
	W. North	42.28	42.71			
	W. South	26.39	25.01			
	W.Tarbaj	38.43	38.91			

	W West	13.82	14.95	
SAMBURU	County	45.53	36.94	The county is experiencing normal conditions with one of its sub county (Samburu East) experiencing severe vegetation deficit.
	S East	25.02	19.37	
	S. North	62.69	48.16	
	S. West	70.13	70.23	
GARISSA	County	30.47	30.13	The entire county remains in the moderate vegetation deficit category with Ijara maintaining normal vegetation greenness.
	Balambala	32.17	33.29	
	Daadab	31.17	27.5	
	Fafi	26.16	27.34	
	Ijara	40.3	38.15	
	Lagdera	27.49	27.65	
	Dujjis	21.02	28.47	
ISIOLO	County	20.6	23.22	The county is in moderate vegetation deficit with Isiolo North experiencing severe vegetation deficit. Close monitoring of the situation required
	I. North	15.8	17.74	
	I. South	27.93	31.6	
TANA RIVER	County	30.45	28.42	The entire county and its sub counties are in the moderate vegetation deficit band and thus need for scale up of response activities.
	Bura	25.3	27.01	
	Galole	25.99	23.12	
	Garsen	37.62	32.94	
KAJIADO	County	44.03	44.9	The county and its sub counties experiencing normal to above normal conditions. Timely start of short rains likely to improve the vegetation condition in the county.
	K. Central	41.45	37.74	
	K. East	42.35	43.52	
	K. North	56.16	52.25	
	K. South	25.6	44.59	
	K. West	37.48	53.59	
LAIKIPIA	County	72.22	77.74	The county maintained above normal vegetation conditions due to the offseason rains received during the month of September. Timely onset of short rains likely to improve the vegetation condition across the county.
	L. East	73.16	72.52	
	L. North	73.52	73.49	
	L. West	69.32	88.19	
THARAKA NITHI	County	43.11	37.36	The county remained in normal vegetation condition with Tharaka in the severe vegetation deficit band. Worsening situation in Tharaka require prompt action to assess impact on livelihoods and identification of possible response initiatives..
	Chulga	71.03	62.56	
	Maara	73.36	67.58	
	Tharaka	22.92	18.21	
WEST POKOT	County	73.44	78.68	Above normal vegetation condition in entire County and all sub-counties.
	Kacheliba	74.66	79.57	
	Kapenguria	73.87	84.02	
	Pokot South	68.7	77.14	
	Sigor	73.71	73.46	
EMBU	County	58.65	52.72	The county and all sub counties experiencing normal to above normal vegetation conditions.
	Manyatta	68.72	64.44	
	Mbeere North	50.28	48.51	

	Mbeere South	56.57	47.72	
	Runyenjes	74.09	67.75	
KITUI	County	32.15	29.05	The county and its sub counties experiencing moderate vegetation conditions except Kitui Central, Mwingi West and Kitui Rural that are in normal vegetation condition. The county requires close monitoring and scale up of response activities. Timely onset of short rains expected to improve the vegetation conditions.
	Kitui Central	54.7	53.31	
	Kitui East	34.04	30.6	
	Mwingi Central	25.74	25.54	
	Mwingi North	26.99	27.43	
	Mwingi West	46.54	43.8	
	Kitui Rural	54.04	50.14	
	Kitui South	30.92	24.98	
	Kitui West	43.85	44.49	
MAKUENI	County	50.84	48.22	The county and its sub counties in normal vegetation conditions except Kibwezi East that is in moderate vegetation deficit band,
	Kaiti	78	70.81	
	Kibwezi East	34.63	33.11	
	Kibwezi West	46.6	45.42	
	Kilome	65.43	59.74	
	Makueni	54.49	52.16	
	Mbooni	68.64	64.4	
MERU	County	48.54	47.85	The county remained at normal drought conditions however some sub counties like Igembe Central, North and South remained in moderate vegetation deficit. The situation in the 3 sub counties require close monitoring.
	Buuri	65.92	60.96	
	Central Imenti	68.07	62.33	
	Igembe Central	31.35	34.61	
	Igembe North	27.07	29.16	
	Igembe South	31.34	34.89	
	North Imenti	72.57	63.04	
	South Imenti	70.74	73.68	
	Tigania East	42.85	42.72	
	Tigania West	44.16	41.15	
NYERI	County	78.18	72.12	The vegetation greenness is above normal across the entire county.
	Kieni	74.85	70.07	
	Mathira	81.82	76.19	
	Mukurweini	86.35	75.21	
	Town	91.5	75.67	
	Othaya	77.13	70.9	
	Tetu	81.44	75.55	
KILIFI	County	47.11	40.26	The county is experiencing normal vegetation conditions. Timely onset of short rains in October likely to improve the vegetation condition.
	Ganze	44.31	37.6	
	Kaloleni	57.33	48.37	
	Magarini	44.72	37.52	
	Malindi	56.44	41.23	
	Kilifi-North	54.38	51.3	

	Rabai	51.49	50.72	
	Kilifi-South	60.28	64.13	
KWALE	County	54.23	47.77	The county and its sub counties experiencing normal vegetation conditions however with slight deterioration as compared to the previous month.
	Kinango	52.14	42.62	
	Lungalunga	56.23	50.62	
	Matuga	59.56	60.97	
	Msambweni	55.89	61.78	
LAMU	County	58.57	53.73	The county and its sub counties remained at above normal drought condition.
	Lamu East	59.6	55.94	
	Lamu West	57.97	52.45	
TAITA TAVETA	County	55.02	45.36	The county and its sub counties experiencing normal vegetation conditions with a slight worsening trend compared to the previous month.
	Mwatate	58.95	46	
	Taveta	74.44	63.31	
	Voi	45.03	36.99	
	Wundanyi	62.99	52.92	
NAROK	County	65.56	62.68	The county and its sub counties remained in above normal vegetation greenness band.
	Narok-East	63.02	57.49	
	Emurua Dikirr	87.43	82.11	
	Kilgoris	68.23	66.41	
	Narok-North	66.96	64.57	
	Narok-South	53.26	53.89	
	Narok-West	74.68	69.05	

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

