



THE PRESIDENCY

MINISTRY OF DEVOLUTION AND ARID AND SEMI ARID LANDS

NATIONAL DROUGHT MANAGEMENT AUTHORITY

National Drought Early Warning Bulletin

December 2018



Summary

The effect of the above normal 2018 March-April-May (MAM) long rains has continued to influence the capacity of rangeland resources in the ASAL region to support livestock production. There were high expectations of further recovery during the October-November-December (OND) 2018 short rains season whose performance was predicted to be above normal. However, the rainfall received during the months of October and November has generally been lower than average and therefore its impact on both livestock and crop production has been below normal.

The poor rainfall performance experienced over most of the ASAL counties during October and November has resulted into poor crop performance in the marginal agricultural areas and some minor restoration of forage and surface water sources which has promoted minimal improvement in livestock body condition and production.

Based on the current climate outlook, there is need to closely monitor the situation and prepare for an early response bearing in mind that a drought event might evolve during the January to March 2019 dry season.

1.0. Drought status

1.1 Drought indicators

Rainfall

Below average rainfall was recorded over most parts of the ASAL counties during the month of November which is supposed to be the rainfall peak month for the October-November-December (OND) short rains season. Rainfall distribution, both in time and space, was generally poor in a number of counties especially during the first half of November.

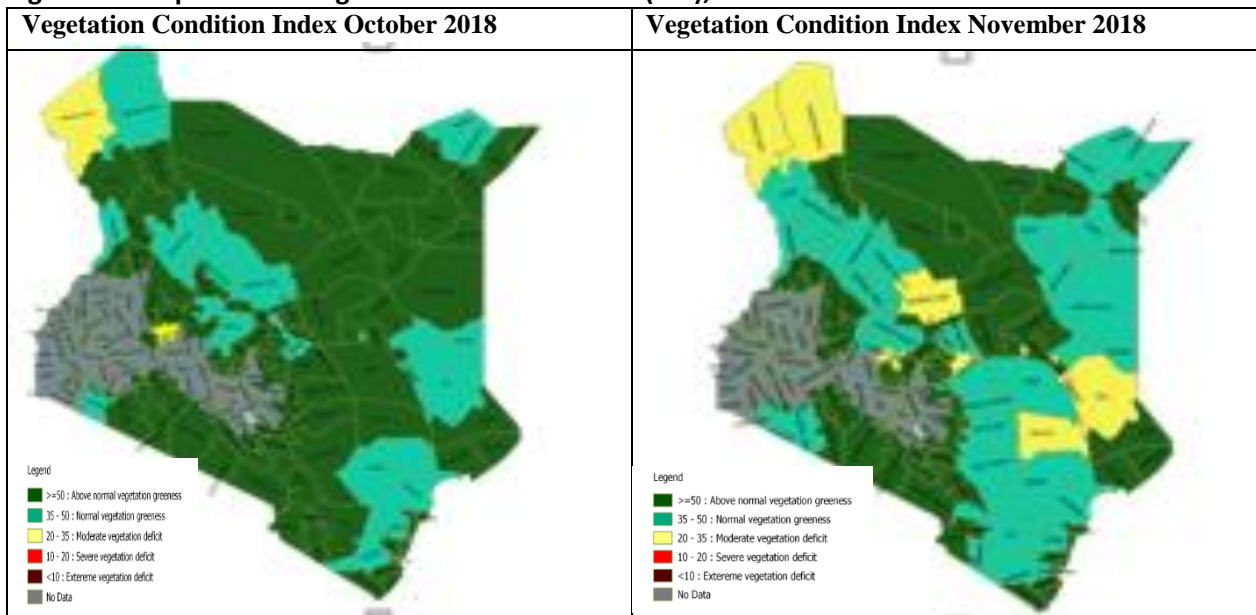
Counties which reported receiving near normal rainfall in November compared to the long term average with a generally fair rainfall distribution over most places include: Kwale, Taita Taveta, Mandera, Makueni and Embu (Mbeere). However, most counties such as Samburu, Turkana, Isiolo, Wajir, Garissa, Tana River, Narok, Kitui, Laikipia, Kilifi, Baringo, Nyeri (Kieni), Lamu, Marsabit, Meru (Meru North) and Kajiado experienced depressed rainfall, which was characterized by uneven spatial distribution and poor temporal distribution.

Vegetation condition

Figure 1 (page 3) compares the vegetation condition index (VCI) in October 2018 with that in November 2018. The maps show that the VCI for November in most ASAL counties is normal compared to the long term average, but the vegetation greenness is on a declining trend compared to last month.

In addition, the condition of vegetation in parts of Turkana, Garissa, Samburu, Tana River, Laikipia, and Tharaka appears to have deteriorated rapidly with some of their sub-counties in the moderate vegetation deficit band as at 26th November 2018. The poor state of vegetation in these ASAL areas can be explained by the depressed rainfall received in October and November and given that rains are likely to cease by mid-December below average pasture availability remain the most likely scenario.

Figure 1: Comparison of Vegetation Condition Index (VCI), October 2018 and November 2018



Water sources

Water situation improved slightly compared to the previous month in counties such as Kwale, Taita Taveta, Mandera, Makueni and Embu (Mbeere) which received some fair amount of rainfall in November. In Meru North, a modest improvement in river flows resulted to an increase in the proportion of households in November relying on rivers as their main source of water to 25 percent compared to 23 percent in October. However dependence on boreholes especially in the agro pastoral livelihood zone remained high with 75 percent of the households drawing water from these sources. Usually at this time of the year most households depend on surface water sources such as dams, rivers, ponds and pans as the main source of water.

ASAL counties like Isiolo Turkana, Kajiado, Samburu, Tana River, Kitui and Nyeri (Kieni) reported that the amount of water impounded in the surface water sources had declined significantly compared to the previous month. For instance, in Turkana, the water situation was declining and worsening as signified by drying up of over 75 percent of the water pans which was aggravated by absence of water flowing through the seasonal rivers like Tarach in Turkana West and Kawalase in Turkana Central.

Livestock production

The effect of the above normal 2018 March-April-May (MAM) long rains combined with the ongoing OND rains has had a positive impact on availability of both browse and pasture leading to improvement in the body condition of livestock in many ASAL counties which in turn has led to the increase in milk production. In spite of the erratic and depressed status of the short rains body condition of livestock has improved slightly in November in many counties following regeneration of forage and reduction in trekking distances from grazing areas to water points.

Table 1 (page 4) shows the trend in milk production in the 23 ASAL counties. Currently, milk production in most ASAL counties is above the long term average which is attributed to

improved availability of water, pasture and browse together with the fact that in many areas cattle and goats have started calving and kidding respectively.

Table 1.0: Milk production, November 2018

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

However in some counties like Turkana, Tana River, Narok, Laikipia, West Pokot, Kitui, Embu and Tharaka milk production has declined which was attributed to reduction of pasture as a result of depressed rainfall and reduction in the size of the milking herd where calving and kidding had not taken place.

Crop production

Land preparation, planting and weeding were the main farming activities undertaken across the marginal agricultural counties during the month of November.

Overall, general crop performance is currently poor compared to a normal October to December rainfall season which is likely to lead to below average harvests. In Embu (Mbeere) for instance maize and beans in the mixed farming livelihood zone are at knee high and flowering stage, however the condition of the crops is poor. While in mixed marginal livelihood zones most of the crops failed due to poor rains received at the start of the season, therefore, farmers opted to replant when the rainfall intensified and the crops are currently at germination and first weeding stage.

In Kitui, land preparation and re-planting was on-going following a late onset of the short rain leading to loss of the seeds. In Transmara East, Narok South and parts of Kilgoris sub-counties in Narok County most crops have wilted due to moisture stress and are likely to fail. Similarly, in the agro pastoral livelihood zone of Meru North, majority of farmers had to replant in November after the first crop germinated and dried after a false rainfall onset and the condition of crops in northern parts of Tigania West, Tigania East, Igembe Central, and Igembe North is poor as rains have remained erratic.

Access to water

In most ASAL counties rainfall received in mid-November and towards the end of the month recharged dried up water sources hence improving water access for both domestic and livestock use. However despite a reduction in average return distances to the main water sources in November compared to October, the current distances are still above the long term mean in counties such as: Turkana, Garissa, Tana River, Samburu, Kajiado, Kilifi, Baringo, Kwale,

Narok, Makueni and Meru (Meru North), implying that recharge of surface water sources such as pans and dams in these areas was below normal.

Table 2.0: Distance from households to main water sources, November 2018

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

In Samburu for instance, the average return distance from household to water sources reduced from 7.1 km in October to 5.2 km in November, but the current distance is above the long term average (LTA) of 4.0 km. In Tana River, access to water for domestic use reduced compared with last month as households had to walk an average of 2.7 km to water points in November compared with 3.2 km in October. However, it was slightly more difficult for households to access water compared with normal times as the average normal distance for this time of the year is was 2.3 km according to the 2013-2017 LTA. In Kajiado, the average household distance to water decreased marginally from 5.9 km in October to 5.5 km, while the average distance for livestock fell slightly from 7.2 km to 7.1, however both were above the LTA of 4.5 km and 6.2 km for households and livestock respectively.

Table 3.0: Distance from livestock grazing area to main water sources, November 2018

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

Terms of trade

The trend in the terms of trade (ToT) in ASAL counties is shown in Table 4(page 16). Considerable improvement in the terms of trade (ToT) was realized in counties like Tana River, Nyeri, West Pokot, Kilifi and Kitui indicating that livestock keepers in these counties were able to purchase additional quantities of maize from the sale of a goat in the month of November

compared to the previous month. The positive shift in ToT in these counties was attributed to stability in goat prices along with a decline in maize prices. For example, in Tana River, proceeds from the sale of a goat could purchase 103.3 kg of maize compared to 67.3 kg in October an increase by 53 percent.

Terms of trade were favourable in all ASAL counties except Kwale. For instance in Laikipia, Tharaka, West Pokot, Narok, Taita Taveta and Turkana the current ToT were higher than the long term average for November by 76, 75, 73, 67, 58 and 52 percent respectively. In Kwale, the ToT decreased slightly by 13 percent from 76.1 in October to 66.4 in November indicating that a lesser amount of maize could be purchased from the proceeds of casual labour this month compared with last month.. The ToT were also 11 percent below average compared with the 2013-2017 LTA of 75 implying that households' purchasing power was slightly below normal for this time of the year.

Table 4.0: Terms of trade, November 2018

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

Health and nutrition

The county drought early bulletins monitor the proportion of children under five at risk of malnutrition, determined by a mid-upper arm circumference (MUAC) measurement.

Overall, the trend in most ASAL counties is improving or stable which was attributed to accessibility and consumption of milk, favourable terms of trade which has resulted to improved purchasing power for most households and availability of food commodities such as maize and beans in the markets.

Garissa County had the highest proportion of children at risk of malnutrition in November, at 19.1 percent, while other counties with rates above 15 percent were: Mandera – 18.7 percent and Samburu at 18.1 percent. The largest decrease in MUAC rate in November compared with October was in Embu (Mbeere) by 41 percent, Kwale – 33 percent, Isiolo – 22 percent, Baringo – 15 percent and in Wajir by 13 percent while in Mandera the rates fell by 12 percent.

In Garissa, the proportion of children at risk of malnutrition increased by 41 percent from 13.5 percent in October to 19.1 percent in November. The current MUAC rate of 19.1 percent is 25 percent higher than the LTA for November of 15.3 percent. The increasing malnutrition trend was attributed to increased cases of child related illness and poor health seeking behaviour among mothers. In Tana River, the percentage of children at risk of malnutrition rose from 10.8

percent in October to 13.5 percent in November an increase of 25 percent which was associated to the poor harvest and reduced milk consumption. Table 5 summarizes the trend in MUAC rates across the 23 ASAL counties.

Table 5.0: Children at risk of malnutrition (MUAC), November 2018

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

1.2 Drought phase classification

Table 6 shows the trend in drought status in the 23 ASAL counties. Although majority of the counties are still in the normal drought phase, compared to the situation in October the drought status in most ASAL counties deteriorated in November with the trend in all but four counties being either stable or worsening. Currently 20 counties are in the normal drought phase while three are in alert. The declining trend is attributed to the poor rainfall performance observed during the month of November.

Table 6.0: Drought phase classification, November 2018

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

2.0. Other food security challenges

Generally no major insecurity incidences were reported in November.

- In Baringo, cases of livestock theft were reported in Ng'oron and Kapedo which resulted in death of two people. This has since caused tension between the local communities.
- In Isiolo, conflicts flared up in Kula Mawe area between herders from Meru and Isiolo.
- Tension remained high along the Kitui - Tana-River border following large migration of livestock that are moving to Kitui County.
- In Meru, fear and tension between local herders and those from neighbouring Isiolo and Samburu counties still remains high and has restricted access to pasture in many areas within the northern grazing area in Meru North.
- Insecurity incidences related to livestock theft were witnessed in Baragoi, Samburu County which caused tension in the area but generally the rest of the county remained calm.
- In Turkana, incidents of insecurity were reported in Todonyang while banditry attacks occurred along the Lodwar - Kitale highway during the month under review.
- In Makueni, invasion of farms by elephants was reported in Masongaleni Ward which borders Tsavo East National Park. Other counties where human wildlife conflict episodes occurred include: Laikipia, Baringo and Taita Taveta and Samburu.

3.0. Projected food security situation

Below average rainfall performance expected in ASAL areas during the month of December 2018 is likely to promote some minor regeneration of pasture and browse which will lead to minimal improvement in livestock body condition and production.

Current low staple prices and high livestock prices will maintain favourable terms of trade, good household purchasing power and access to food. Stocks held from the previous season are likely to also last throughout December. Favourable milk production and consumption coupled with fair food availability and access will maintain a low prevalence of malnutrition among children 6 – 59 months in December.

However rainfall over most ASAL regions is forecasted to cease during the second week of December hence a cumulative seasonal moisture deficits is expected which will affect crop performance and will likely lead to below normal harvests and overall low household food stocks by end of January.

4.0. Recommendations

- Based on the current situation, review of contingency plans should be enhanced to facilitate early response considering that a drought event may unfold in the next dry season

- Livestock disease surveillance and control to curb spread of livestock diseases including vaccination of livestock against notifiable diseases
- Enhance peace building, conflict resolution and cohesion mechanisms
- Besides the immediate interventions required, medium to long-term interventions that will build community resilience in line with the Common Programme Framework for Ending Drought Emergencies should be stepped up

Annex 2.0: Vegetation Condition Index (VCI) as at 26th November 2018

ADMINISTRATIVE UNIT		VEGETATION GREENNESS		DROUGHT CATEGORIES/REMARKS		
COUNTY	Sub County	VCI-3 month as at 29 th Oct 2018	VCI-3 month as at 26 th Nov 2018	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	63.14	59.18	The vegetation greenness is above the normal ranges for the period for the county and across all the sub-counties.		
	Central	69.11	69.93			
	Eldama	68.61	65.52			
	Mogotio	69.59	63.71			
	North	62.59	57.49			
	South	65.05	60.71			
	Tiaty	58.74	54.97			
MANDERA	County	55.2	46.97	All sub-counties are normal in vegetation cover for the period with Mandera South with above normal conditions.		
	Banissa	46.14	44.16			
	M East	58.61	47.15			
	Lafey	59.44	47.67			
	M North	48.77	42.41			
	M South	65.32	54.44			
	M West	52.03	44.7			
TURKANA	County	44.46	41.37	Turkana North and West are in moderate vegetation deficit while the overall county and all other sub-counties are normal to above normal in Turkana Central.		
	T Central	72.44	64.93			
	T. East	46.86	45.53			
	T. Loima	50.52	46.74			
	T. North	37.86	34.24			
	T. South	50.4	49.07			
	T. West	33.02	30.61			
MARSABIT	County	71.48	54.62	The county and all sub-counties are above normal in conditions		
	Laisaimis	70.04	52.08			
	Moyale	67.63	50.61			
	N. Horr	72.77	56.76			
	Saku	80.42	60.13			
WAJIR	County	63.07	45.8	Normal conditions across entire county with Wajir North above normal.		
	W East	59.35	47.53			
	W.Eldas	58.96	41.72			
	W. North	80.89	62.33			
	W. South	53.46	39.69			
	W.Torbaj	66.37	49.44			
	W West	69.91	40.48			
SAMBURU	County	42.57	35.71	Moderate vegetation deficit in Samburu East with a decline from last month. Drought response plans need to be activated for this sub-county if conditions do not improve.		
	S East	35.83	25.44			
	S. North	46.46	44.04			
	S. West	56.77	48.93			

ADMINISTRATIVE UNIT		VEGETATION GREENNESS		DROUGHT CATEGORIES/REMARKS
GARISSA	County	57.22	43.46	Though many sub-counties have normal conditions, the drought situation is deteriorating with two sub-counties entering the moderate vegetation deficit band.
	Balambala	84.41	51.3	
	Daadab	48.36	35.08	
	Fafi	36.66	32.4	
	Ijara	53.68	51.82	
	Lagdera	104.93	65.86	
	Dujis	49.09	30.76	
ISIOLO	County	90.56	57.79	Above normal conditions across the entire county for the period.
	I. North	87.27	55.97	
	I. South	95.59	60.56	
TANA RIVER	County	57.88	40.72	One sub-county (Galole) is in Moderate vegetation deficit while the county and others have normal conditions for the period.
	Bura	78.5	47.54	
	Galole	50.41	31.77	
	Garsen	45.05	40.54	
KAJIADO	County	89.73	69.66	Entire county above normal in vegetation conditions.
	K. Central	86.16	72.25	
	K. East	93.89	71.59	
	K. North	67.24	73.7	
	K. South	102.13	79.75	
	K. West	80.42	59.09	
LAIKIPIA	County	47.46	40.51	The vegetation greenness is within normal ranges for the period although Laikipia East is marginally in moderate vegetation deficit.
	L. East	37.52	34.9	
	L. North	46.2	39.27	
	L. West	54.62	45.53	
THARAKA NITHI	County	56.09	43.7	Vegetation greenness within normal ranges for the period except for Tharaka sub-county that is in the moderate vegetation deficit band with worsening trend
	Chuka	68.27	62.78	
	Maara	71.63	70.88	
	Tharaka	46.54	27.83	
WEST POKOT	County	55.49	54.94	The vegetation greenness is within/ above normal ranges for the period in all sub-counties.
	Kacheliba	49.9	46.07	
	Kapenguria	58.77	58.77	
	Pokot South	59.38	64.68	
	Sigor	60.61	62.11	
EMBU	County	65.39	55.9	Vegetation greenness within/ above normal ranges for the period
	Manyatta	65.13	69.34	
	Mbeere North	59.25	47.98	
	Mbeere South	69.13	52.66	
	Runyenjes	65.62	70.84	

ADMINISTRATIVE UNIT		VEGETATION GREENNESS		DROUGHT CATEGORIES/REMARKS
KITUI	County	76.42	47.28	Vegetation conditions within/above normal though with negative trends across all the sub-counties.
	Kitui Central	93.8	65.7	

	Kitui East	78.22	46.89	
	Mwingi Central	82.74	48.96	
	Mwingi North	69.81	42.5	
	Mwingi West	93.46	63.14	
	Kitui Rural	96.28	62.43	
	Kitui South	68.71	42.83	
	Kitui West	106.82	68.57	
MAKUENI	County	105.18	77.24	The vegetation greenness is above normal ranges for the period.
	Kaiti	93.34	82.12	
	Kibwezi East	91.39	63.05	
	Kibwezi West	107.97	78.89	
	Kilome	94.73	77.58	
	Makueni	123.92	90.26	
	Mbooni	115.8	84.2	
MERU	County	62.58	51.31	The vegetation greenness is within/above normal ranges for the period but with a negative trend except for South Imenti.
	Buuri	56.51	52.08	
	Central Imenti	74.04	72.62	
	Igembe Central	62.98	43.67	
	Igembe North	60.98	39.51	
	Igembe South	65.7	43.31	
	North Imenti	79.1	73.44	
	South Imenti	77.91	80.22	
	Tigania East	46.83	39.43	
	Tigania West	66.02	49.18	
NYERI	County	63.54	68.97	The vegetation greenness is above normal across the entire county.
	Kieni	58.07	58.12	
	Mathira	62.79	83.1	
	Mukurweini	62.38	79.67	
	Town	73.35	74.05	
	Othaya	77.52	86.36	
	Tetu	75.1	82.69	
KILIFI	County	49.5	50.92	The vegetation greenness is within/above normal across the entire county with positive trends except for Magarini that remained stable.
	Ganze	45.5	49.16	
	Kaloleni	68.73	73.09	
	Magarini	46.75	45.96	
	Malindi	52.06	56.02	
	Kilifi-North	59.38	64.05	
	Rabai	67.19	73.16	
	Kilifi-South	59.59	64.78	

ADMINISTRATIVE UNIT		VEGETATION GREENNESS		DROUGHT CATEGORIES/REMARKS
KWALE	County	49.81	51.22	

	Kinango	43.6	45.35	The vegetation greenness is within/above normal ranges for the period across all the sub-counties.
	Lungalunga	50.97	50.07	
	Matuga	69.03	73.54	
	Msambweni	68.97	69.32	
LAMU	County	70.97	70.12	Stable above normal vegetation conditions for the period across all the sub-counties.
	Lamu East	72.43	74.86	
	Lamu West	70.13	67.38	
TAITA TAVETA	County	61.39	53.16	Normal/ above normal vegetation conditions.
	Mwatate	52.7	46.68	
	Taveta	85.29	68.65	
	Voi	52.78	47.6	
	Wundanyi	74.15	64.05	
NAROK	County	59.33	52.12	Normal to above normal vegetation conditions across the county.
	Narok-East	79.8	73.72	
	Emurua Dikirr	58.65	54.74	
	Kilgoris	46.6	44.94	
	Narok-North	57.43	59.28	
	Narok-South	65.01	54.13	
	Narok-West	52.91	41.28	

Annex 3.0 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 7). The combined analysis from all four indicator groups then determines the particular drought phase: normal, alert, alarm, emergency or recovery (Figure 1). Identifying the correct drought phase helps to guide the most appropriate response for that stage in the drought cycle.

Table 7.0: 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

