



**THE PRESIDENCY
MINISTRY OF DEVOLUTION AND PLANNING**

National Drought Early Warning Bulletin

November 2017



Summary

A number of ASAL counties continued experiencing some level of stress in October following the prolonged drought situation characterized by successive poor seasons. However, the onset of the October-November-December (OND) 2017 short rains impacted positively on livestock and crop production in some ASAL areas and consequently the food security situation is expected to improve as the season progresses.

Counties that have continued to experience severe drought conditions in October include: - Garissa, Isiolo, Marsabit, Kajiado, Tana River, Kilifi, Makueni, Wajir, Kitui, Mandera and Taita Taveta. In these areas pasture and water scarcity still persists, milk production and livestock prices are well below normal, maize prices have maintained their above normal and increasing trend and terms of trade for pastoralists remain unfavourable.

On the other hand counties such:- Narok, Turkana, West Pokot, Embu (Mbeere), Laikipia, Meru (Meru North), Nyeri (Kieni), Samburu, Tharaka Nithi (Tharaka), Baringo, Kwale and Lamu are in the normal drought phase or are experiencing moderate drought condition.

1.0. Drought status

1.1 Drought indicators

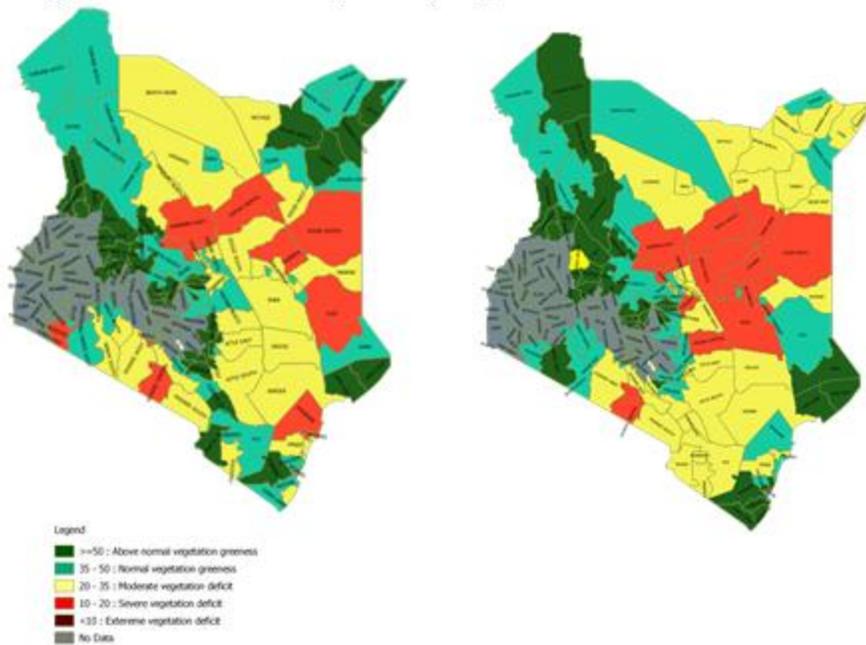
Rainfall

The October-November-December (OND) 2017 rains started at varying times across the ASAL counties with most areas experiencing onset during the third and fourth week of the month. However, some of the counties such as Garissa, Isiolo, Marsabit, Kajiado, Tana River, Kilifi, Makueni, Wajir, Kitui, and Lamu remained generally dry and were still facing drought situation caused by lack of or low rainfall for a long period of time.

Vegetation condition

- Isiolo County remained in the severe vegetation deficit band indicating a persistent prevalence of poor vegetation condition across all livelihood zones attributed to the cumulative effects of two consecutive poor rainfall seasons
- Counties which have some of their sub-counties in the moderate vegetation deficit band include: - Marsabit, Mandera, Wajir, Samburu, Tana River, Kajiado, Tharaka Nithi, Kitui, Taita Taveta, Garissa, Meru, Makueni and Kilifi.
- Nine counties: Laikipia, West Pokot, Embu, Nyeri, Narok, Baringo, Turkana, Kwale and Lamu had Vegetation greenness within normal ranges

Vegetation Condition Index (3 Month) : September 2017 & October 2017



Water sources

In comparison to the previous month availability of water has increased in most counties following the onset of the short rains. Open water sources were partially recharged across ASAL counties with remarkable increase in river flows observed in West Pokot where seasonal rivers such as Lomut and most permanent rivers including Suam, Muruny and Wei Wei are flowing at full capacity. In Baringo, most water pans are full and have impounded water quantities beyond seasonal norms. Reduction in dependence of boreholes as water sources was witnessed in a number of counties such as Samburu. The frequency of water rationing in Wote town in Makueni County which was occasioned by the drying of river Kaiti and Muani borehole reduced in October.

However, in other counties water shortages persist. In Isiolo, most shallow wells in Garbatulla and Merti sub-counties remained dry or recorded very low yields during the month. Limited water sources in Kajiado has exerted high pressure on existing boreholes leading to frequent breakdowns of boreholes in areas such as Olkeri, Lenkobei, Olobelbel, Ilpolsat and Enkaroni. In Kitui most of the open water sources had dried up, while underground water sources were yielding modest amounts of water leading to concentration of livestock and people around the few remaining water sources. Water trucking continues in parts of Isiolo, Kajiado, Mandera and Garissa.

Livestock production

The condition of pasture and browse in many ASAL areas was poor to fair in October but is expected to improve in both quality and quantity due to the onset of rains. Livestock body

condition for cattle and sheep was poor to fair while that of goats and camel was fair across counties. Counties where livestock body condition shows signs of improving include: Baringo, Lamu, Kwale, Marsabit Samburu, Turkana and West Pokot

However in Kajiado, Isiolo, Garissa, Tana River, Mandera and Wajir livestock body condition deteriorated due to depletion of pasture and browse availability as well as long trekking distances from grazing areas to water points. In Tana River county the fall back areas in Boni Forest and areas along the borders with Somalia remained inaccessible due to security operation and insecurity

Death of livestock continued in the pastoral livelihood zones. Drought-related livestock deaths were reported in Isiolo, Kajiado, Marsabit, Mandera and Laikipia. In Isiolo death of sheep, goats and cattle increased during the month under review because most herds that migrated into the neighbouring counties moved back into the county after exhausting the available pasture and browse resources while in Laikipia 6 percent of the households reported having lost an animal due to starvation.

Unusual livestock movements were reported in a number of counties. In Garissa livestock migration from the dry grazing areas in Boni Forest and Somalia were reported because of insecurity. In Isiolo herds of cattle that had moved to Moyale and Wajir North and West migrated back into the county following exhaustion of pasture and browse resources in those regions and then migrated to Laikipia and Samburu counties targeting private ranches and conservancies. While in Laikipia outmigration of livestock in search of pasture was reported with livestock migrating to Ngare Ndare and Mt. Kenya Forest. Massive in migration of herders from all sub counties of Mandera and neighbouring Wajir County to Banisa Sub County. Still in Mandera, out migration occurred with some livestock migrating to Marsabit.

Crop production

- Land preparation and planting were undertaken across the marginal agricultural counties. In Embu early planted maize and beans were at germination stage while in Meru, first weeding began towards the end of the month, but crops in the lower areas in the agro-pastoral livelihood zone had begun to wilt due to lack of adequate rains.
- In West Pokot harvesting of maize planted during the long rains season was the major activity taking during the month under review. However, a small portion of farmers in the lowlands were planting beans with some in the highlands planting irish potatoes.

Access to water

Average return distances to water for both households and livestock reduced in October following the onset of the short rains. However in a few counties access to water worsened during the month under review.

- Kilifi: Longer trekking distances of up to 15-16 km were observed in the livestock/ranching livelihood zones in Magarini and Ganze Sub Counties which was caused by drying up of water pans in the ranching and marginal mixed farming zones.
- Makueni: The average household return distances was 6.6 km compared to the long term mean of 3.3 km which was attributed to decline in the water levels in the main water reservoirs in the county.

- Lamu: The average trekking distance from the main water sources to grazing areas for livestock increased from 3.0 km recorded in the previous month to 9.6 km in October. This was attributed to drying up of dams and water pans in the area.

Terms of trade

Table 1 shows the trend in the terms of trade (ToT) in ASAL counties. The largest shift in terms of trade were:

- Kajiado: ToT were unfavourable since the proceeds from the sale of a goat could purchase 27 kg of maize in October compared with the LTA of 46 kg which is 41 percent below the long term mean
- Embu: ToT was 50 across the two livelihood zones was percent lower than the long term mean.
- Isiolo: ToT were 38 percent lower than the long term average
- Baringo: ToT were 15 percent lower than LTA

Reduction in ToT was caused by increase in the price of maize while goat prices had decreased

Table 1.0: Terms of trade, October 2017

<i>Terms of trade (ToT)</i>	<i>Trend</i>		
	Improving	Stable	Worsening
Below long-term average (LTA)	Kitui Marsabit Meru (Meru North) Samburu Nyeri (Kieni)	Mandera Tana River	Baringo Embu (Mbeere) Isiolo Kajiado
At / Close to LTA			Makueni TaitaTaveta
Above LTA	Garissa Laikipia Lamu Tharaka Nithi Turkana Wajir West Pokot	Kilifi Narok	Kwale

Note: Data based on 15 counties

Health and nutrition

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

- Nine counties have MUAC rates above the 15 percent threshold: Garissa, Isiolo, Kajiado, Mandera, Marsabit, Meru (Meru North), Samburu, Tana River and Wajir
- Of these, the highest rates were reported in Mandera at 32.4 percent, Isiolo - 31.3 percent, Meru North - 25.6 percent, Tana River - 24.5 percent and Samburu at 21.6 percent.
- There are hotspots of concern in a number of counties, including Komolion in Baringo at 29 percent, Mosiro and Naroosura in Kajiado - 24 percent and Kajiado west sub-county at 21 percent.

The nurse’s strikes had worsened the malnutrition situation in addition to lack of food at household levels leading to delays in recovery of the malnourished.

Table 2.0: Children at risk of malnutrition (MUAC), October 2017

<i>MUAC</i>	<i>Trend</i>		
	Improving	Stable	Worsening
Below long term average (LTA)	Baringo Lamu Nyeri (Kieni) Turkana	Kitui Laikipia West Pokot	Embu (Mbeere)
At / Close to LTA	Marsabit Tharaka Nithi	Makueni	
Above LTA	Narok ¹ Samburu Tana River	Garissa Isiolo Kwale Mandera Meru (Meru North) Taita Taveta	Kajiado Kilifi Wajir

1.2 Drought phase classification

On the basis of the range of indicators monitored above, most counties are currently categorized in either the normal or alert drought phase, with Garissa, Isiolo, Kajiado, Marsabit, Tana River and Wajir in alarm.

¹ The MUAC rate in the pastoral zone of Narok is above 15% (16.2%)

Table 3.0: Drought phase classification October 2017

<i>Drought status</i>	<i>Trend</i>		
	Improving	Stable	Worsening
Normal	Narok Turkana West Pokot	Baringo Kwale Lamu	
Alert	Embu (Mbeere) ² Laikipia Meru (Meru North) Nyeri (Kieni) Samburu Tharaka Nithi (Tharaka)		Kilifi Kitui Makueni Mandera Taita Taveta
Alarm	Marsabit		Garissa Isiolo Kajiado Tana River Wajir
Emergency			
Recovery			

2.0. Other food security challenges

No major incidents of resource based conflict were reported in the month of October. In Meru, skirmishes between local farmers and herders from neighbouring Isiolo County led to one death in Kangeta ward.

² Marginal mixed farming livelihood zone: worsening

- Isolated cases of cattle theft were reported along the Baringo and Samburu border in Samburu North, Tharaka and in Ingwesi (Laikipia).
- Cases of human wildlife conflict were experienced in Laikipia, Baringo, Makueni and Taita Taveta.
- In Kitui, tension was high after large herds of livestock moved to the Kitui/Tana River border in search of water and pasture. Tension is also high in the Tana Delta (Tana River county) due to high migration of livestock into the area
- Tension remained high in Kakuma (Turkana) following the murder of seven students of Lokichogio secondary school in mid-October.
- In Marsabit, heavy rains flooded parts of North Horr town and Forolle resulting in displacement of 10 families. Major rivers (Lagas-Malgis& Lag Balal) rendered roads impassable
- Mandera, Lamu and Tana River continues to be affected by Al shabab /cross-border insecurity

3.0. Response

Annex 1: Drought contingency fund approvals and disbursements, July to October 2017

Row Labels	FRF No.	Agriculture	Coordination	Education	Health & Nutrition	Livestock	Security	Water	Grand Total	Disbursements				Balance - Committed
										Jul - Aug'17	Sep'17	Oct'17	Total	Kshs
Baringo	544		947,600						947,600	947,600			947,600	-
Baringo Total									947,600	947,600	-		947,600	-
Garissa	540							1,593,700	1,593,700	1,593,700			1,593,700	-
Garissa	552							3,442,400	3,442,400				-	3,442,400
Garissa	571							349,200	349,200	349,200			349,200	-
Garissa	594		2,810,000			21,438,600		4,092,000	28,340,600		14,560,600	13,794,597	28,355,197	- 14,597
Garissa	623					8,389,600			8,389,600			2,104,594	2,104,594	6,285,006
Garissa Total									42,115,500	1,942,900	14,560,600		30,298,097	3,427,803
Isiolo	565		1,466,600	4,368,150		19,652,500	1,732,800	4,301,900	31,521,950	22,319,900		9,520,651	31,840,551	- 318,601
Isiolo	573					1,987,000			1,987,000				-	1,987,000
Isiolo	576					1,520,800			1,520,800				-	1,520,800
Isiolo	596							1,441,000	1,441,000		1,441,000		1,441,000	-
Isiolo	606					9,336,000			9,336,000		1,336,000	2,790,000	4,126,000	5,210,000
Isiolo	621					1,752,500			1,752,500				-	1,752,500
Isiolo	627					809,300			809,300				-	809,300
Isiolo Total									48,368,550	22,319,900	2,777,000		37,407,551	8,399,199
Kajiado	591		1,079,000			19,323,600		543,600	20,946,200		6,258,200	15,047,852	21,306,052	- 359,852
Kajiado	618					9,314,200			9,314,200			1,200,600	1,200,600	8,113,600
Kajiado Total									30,260,400	-	6,258,200	16,248,452	21,306,052	- 359,852
Kilifi	578					1,764,200			1,764,200		1,764,200		1,764,200	-
Kilifi	581		283,000						283,000		283,000		283,000	-
Kilifi Total									2,047,200	-	2,047,200		2,047,200	-
Kwale	583					1,115,790			1,115,790				-	1,115,790
Kwale Total									1,115,790	-	-		-	1,115,790
Laikipia	570		1,042,400		2,644,900	18,589,000	915,000	731,600	23,922,900		6,972,900	12,850,554	19,823,454	4,099,446
Laikipia	607					4,124,350			4,124,350			1,024,350	1,024,350	3,100,000
Laikipia Total									28,047,250	-	6,972,900	13,874,904	20,847,804	7,199,446
Lamu	538					7,329,000			7,329,000	7,329,000			7,329,000	-

Lamu	541				5,050,550			5,050,550	3,732,000			3,732,000	1,318,550	
Lamu	542				206,500			206,500	206,500			206,500	-	
Lamu	625				1,800,966			1,800,966				-	1,800,966	
Lamu Total								14,387,016	11,267,500	-		11,267,500	1,318,550	
Mandera	547					4,514,500		4,514,500	4,514,500			4,514,500	-	
Mandera	563	1,186,800	1,163,850		9,658,000		1,840,280	13,848,930		13,848,930		13,848,930	-	
Mandera Total								18,363,430	4,514,500	13,848,930		18,363,430	-	
Marsabit	525				15,011,600		2,320,000	17,331,600				-	17,331,600	
Marsabit	550		1,250,400					1,250,400	1,250,400			1,250,400	-	
Marsabit	582				1,120,000			1,120,000	1,120,000			1,120,000	-	
Marsabit	584	1,448,000		1,718,800	17,921,200		8,000,500	29,088,500		-	10,506,000	12,761,251	5,821,249	
Marsabit	604				340,000		2,703,000	3,043,000		3,043,000		3,043,000	-	
Marsabit Total								51,833,500	2,370,400	13,549,000		28,680,651	23,152,849	
Meru	601		1,072,900		3,418,600	1,775,000	5,060,750	11,327,250				-	11,327,250	
Meru Total								11,327,250	-	-		-	11,327,250	
Narok	592		319,100					319,100	319,100			319,100	-	
Narok	593			1,974,500				1,974,500		2,414,900	2,414,900	-	440,400	
Narok	610				10,576,600			10,576,600		676,000	8,200,797	8,876,797	1,699,803	
Narok	612				73,011			73,011			73,011	73,011	0	
Narok	622				238,800			238,800		251,400	251,400	-	12,600	
Narok Total								13,182,011	319,100	676,000	10,688,708	11,683,808	23,048,516	
Nyeri	531				4,500,400			4,500,400	4,500,400		2,790,000	7,290,400	-	2,790,000
Nyeri Total								317,000		317,000		317,000	-	
Samburu	526				9,900,100			9,900,100	9,900,100			9,900,100	-	2,790,000
Samburu	537				3,720,900			3,720,900	3,720,900			3,720,900	-	
Samburu	579				984,200			984,200				-	984,200	
Samburu	585	758,440			14,488,780			15,247,220		3,544,020	10,478,791	14,022,811	1,224,409	
Samburu	598			2,088,400				2,088,400		2,088,400		2,088,400	-	
Samburu	599				2,446,760			2,446,760			2,396,760	2,396,760	50,000	
Samburu	600				536,700			536,700		536,700		536,700	-	
Samburu Total								34,924,280	13,621,000	6,169,120	12,875,551	32,665,671	2,258,609	
Taita Taveta	536		102,150					102,150	102,150			102,150	-	
Taita Taveta Total								102,150	102,150	-		102,150	-	
Tana River	553		1,040,400					1,040,400	1,040,400			1,040,400	-	
Tana River	558					3,326,400		3,326,400	3,326,400			3,326,400	-	
Tana River	569				23,988,800			23,988,800		11,538,800	13,044,234	24,583,034	-	594,234
Tana River Total								28,355,600	4,366,800	11,538,800		28,949,834	-	594,234
Turkana	532				1,177,450			1,177,450	1,177,450			1,177,450	-	
Turkana	546		1,641,400					1,641,400	1,641,400			1,641,400	-	
Turkana	549				6,934,230			6,934,230				-	6,934,230	
Turkana	595		1,403,000			2,561,000		3,964,000				-	3,964,000	
Turkana Total								13,717,080	2,818,850	-	-	2,818,850	10,898,230	
Wajir	551				5,631,000			5,631,000	5,631,000			5,631,000	-	
Wajir	557				1,411,100			1,411,100	1,411,100			1,411,100	-	
Wajir	567	243,000				4,480,500		4,723,500	4,723,500			4,723,500	-	
Wajir	597	198,000			28,782,000		5,388,800	34,368,800		9,048,800.00	15,969,456.00	25,018,256	9,350,544	
Wajir Total								46,134,400	11,765,600	9,048,800.00		36,783,856	9,350,544	
Grand Total								390,046,407	80,856,700	87,763,550	126,713,798	307,017,856	117,760,875	

4.0. Projected food security situation

The expected good rainfall performance during November 2017 is likely to rejuvenate pasture and browse across all livelihood zones leading to recovery of livestock in terms of productivity. Livestock are expected to move back to the wet season grazing fields, milk production is projected to increase resulting to rise in milk consumption. In the marginal agricultural counties crops are also likely to do well which will further increase access and availability of food at household level. As a result, malnutrition levels are likely to reduce as dietary diversity improves. Therefore it is anticipated that households will engage fewer severe coping strategies as food consumption gaps reduce.

Terms of trade will slightly improve as goat prices are expected to rise. Favourable terms of trade might be boosted further when prices of maize dip as harvesting of maize continues in the North Rift.

However, in West Pokot, sustained rainfall in the high altitude areas is likely to affect harvesting and drying of maize. Likelihood of the occurrence of human and livestock disease outbreaks as a result of enhanced rainfall, coupled with crop destruction and flooding could compromise the envisaged improvement in both livestock and crop production in some areas in the ASAL region.

5.0. Recommendations

Support early recovery initiatives in counties that were severely affected by recent drought

Close monitoring of the performance of the short rains and development of contingency plans to support appropriate response

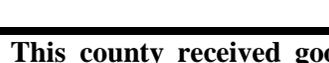
Awareness creation and promotion/implementation of rain water harvesting technologies

Expansion of pasture and fodder production initiatives as well as rehabilitation and conservation of strategic grazing areas

Livestock disease surveillance and control to curb spread of livestock diseases

Peace building and conflict management activities including human wildlife conflict management should be enhanced to mitigate loss of life, livestock and crop damage

Annex 2.0 Vegetation Condition Index (VCI) as at 30thOctober 2017

ADMINISTRATIVE UNIT					
COUNTY	Sub County	VCI-3 month As at 25 th September 2017	VCI-3 month As at 30 th October 2017	Color	VCI values (3-month)
					≥50
					35 to 50
					21 to 34
					10 to 20
					<10
BARINGO	County	66.72	77.84	This county received good off-season rains and as a result the vegetation greenness is above the normal ranges for the period	
	Central	61.25	75.96		
	Eldama	69.34	75.24		
	Mogotio	66.39	78.21		
	North	66.78	73.28		
	South	71.23	83.15		
	Tiaty	65.36	78.24		
MANDERA	County	48.58	32.99	There is a declining trend across all the sub-counties. However some consistent rains have been recently received in most parts of the county except for pockets in Elwak sub county and the whole of Lafey sub county. It is therefore expected a substantial improvement of the vegetation greenness in the next weeks.	
	Banissa	47.35	40.13		
	M East	41.89	21.38		
	Lafey	50.78	25.48		
	M North	49	29.74		
	M South	54.66	41.8		
	M West	42.1	31.98		
TURKANA	County	40.41	51.33	Some off-season rains have improved the vegetation greenness, which is currently in the normal range for the period	
	T Central	48.17	54.71		
	T. East	47.55	63.78		
	T. Loima	38.33	43.72		
	T. North	36.81	51.61		
	T. South	36.58	46.23		
	T. West	40.06	47.86		
MARSABIT	County	31.45	32.29	The County faces moderate vegetation greenness deficit across all sub-counties, except for N. Horr which is in the normal range (the area received some off-season rains). Rains received so far are quite good in most of the county and therefore a good recovery of the rangelands is expected in the next weeks	
	Laisaimis	29.66	26.21		
	Moyale	23.15	20.07		
	N. Horr	34.24	39.11		
	Saku	37.45	26.75		
WAJIR	County	31.18	24.63	W. South and W West continue to experience a significant vegetation deficit while all other sub-	
	W East	36.76	30.65		

	W.Eldas	39.24	24.22	counties are in the moderate deficit band. Good rains received at end of October and beginning of November should allow a sufficient recovery provided the rainfall will be sustained in November.
	W. North	54.57	33.45	
	W. South	13.59	18.37	
	W.Torbaj	51.14	34.8	
	W West	21.3	17.69	
SAMBURU	County	26.77	32.56	Samburu East is still in the severe deficit band while S. West is above the normal greenness for the period. Samburu East received so far three days rainfall that has improved access to water but will not be sufficient for a full recovery unless good rains are received in November
	S East	15.86	16.71	
	S. North	32.69	42.64	
	S. West	51.09	62.68	
ADMINISTRATIVE UNIT				
COUNTY	Sub County	VCI-3 month As at 25th Sept 2017	VCI-3 month As at 30th October 2017	
GARISS A	County	24.18	31.5	The drought situation remains critical especially in Lagdera and Balambala sub-counties. So far these two sub-counties have not received any significant rains and therefore the drought situation is still acute
	Balambala	26.85	14.06	
	Daadab	23.24	23.63	
	Fafi	19.24	35.98	
	Ijara	37.83	52.76	
	Lagdera	16.61	13.24	
	Dujis	36.87	42.67	
ISIOLO	County	16.44	13.63	Isiolo County continues to experience a significant vegetation deficit, in both sub-counties. No significant rains received so far and therefore recovery is not taking place yet
	I. North	13.14	13.36	
	I. South	21.48	14.05	
TANA RIVER	County	23.87	26.05	The northern part has not received any significant rains and as a result Bura sub-county is now in the severe vegetation deficit band
	Bura	25.58	19.7	
	Galole	22.5	28.46	
	Garsen	23.28	29.93	
KAJIAD O	County	24.86	23.09	Vegetation deficit across all sub-counties, with K. Central in the severe band. So far only Kitengela, Ngong and parts of Kajiado West (mainly around Magadi) have recorded some substantial rains. Hence, the drought situation is still significant across the county but good recovery has taken place in K. North
	K. Central	18.32	19.07	
	K. East	21.83	25.43	
	K. North	19.09	35.32	
	K. South	32.92	22.84	
	K. West	23.46	24.29	
LAIKIPI A	County	42.85	54.47	All sub-counties are now within normal ranges for the period
	L. East	43.4	46.76	
	L. North	35.72	45.63	

	L. West	55.94	74.71	
THARA KA NITHI	County	37.47	31.09	Vegetation greenness within normal ranges for the period except for Tharaka sub-county that is in the severe vegetation deficit band.
	Chulga	47.26	42.99	
	Maara	56.33	52.16	
	Tharaka	27.76	19.87	
WEST POKOT	County	52.75	65.23	Due to significant off-season rains, the vegetation greenness is within normal / above ranges for the period in all sub-counties
	Kacheliba	51.87	63.8	
	Kapenguria	54.52	65.59	
	Pokot South	56.61	70.2	
	Sigor	50.55	64.6	
EMBU	County	52.75	44.31	Vegetation greenness within normal ranges for the period
	Manyatta	51.87	61.41	
	Mbeere North	54.52	40.73	
	Mbeere South	56.61	37.9	
	Runyenjes	50.55	57.03	
KITUI	County	37.75	24.34	The vegetation greenness is continuing to worsen and Mwingi Central is now in the severe deficit band. Considering that the county received only one day of rainfall, recovery is not taking place yet. Unless good rains will be received in November, the cropping season will probably be poor.
	Kitui Central	66.86	47.33	
	Kitui East	32.21	20.2	
	Mwingi Central	34.98	19.77	
	Mwingi North	37.02	22.61	
	Mwingi West	56.69	41.59	
	Kitui Rural	43.47	26.7	
	Kitui South	34.59	23.33	
	Kitui West	59.98	39.09	
ADMINISTRATIVE UNIT				
COUNTY	Sub County	VCI-3 month As at 25th Sept 2017	VCI-3 month As at 30th October 2017	
	County	52.54	35.49	

MAKUE NI	Kaiti	73.32	52.1	Vegetation greenness with worsening trend with three sub-counties shifting to the moderate deficit band
	Kibwezi East	50.61	33.4	
	Kibwezi West	38.96	26.39	
	Kilome	44.91	34.27	
	Makueni	59.14	38.68	
	Mbooni	73.38	48.84	
MERU	County	41.22	38.84	Moderate deficit recorded in five sub-counties
	Buuri	40.83	41.82	
	Central Imenti	55.76	47.34	
	Igembe Central	39.5	32.74	
	Igembe North	31.12	31.6	
	Igembe South	44.63	33.34	
	North Imenti	45.44	41.53	
	South Imenti	59.99	58.03	
	Tigania East	32.04	35.85	
	Tigania West	35.2	33.53	
NYERŪ	County	52.86	61.03	Vegetation greenness within /above normal ranges for the period
	Kieni	51.01	56.12	
	Mathira	53.27	70.12	
	Mukurweini	51.24	62.21	
	Town	61.41	70.9	
	Othaya	51.23	65.63	
	Tetu	60.29	65.31	
KILIFI	County	24.06	37.5	Good rains received in October have improved the situation substantially, with Magarini shifting from the severe to the normal deficit band. However, Malindi sub-county is still recording a moderate deficit
	Ganze	25.78	34.89	
	Kaloleni	46.93	49.57	
	Magarini	18.4	35.93	
	Malindi	19.72	29.15	
	Kilifi-North	32.86	43.04	
	Rabai	48.38	50.78	
	Kilifi-South	43.69	56.7	
KWALE	County	48.5	55.36	Vegetation greenness within /above normal ranges for the period
	Kinango	51.3	55.47	
	Lungalunga	46.03	52.32	
	Matuga	47.98	62.1	

	Msambweni	28.83	51.14	
LAMU	County	55.01	62.75	Both sub-counties experiencing above-normal vegetation greenness.
	Lamu East	57.81	70.05	
	Lamu West	53.38	58.53	
TAITA TAVETA	County	41.27	32.26	Moderate deficit in all sub-counties with worsening trend unless good rains are received in the course of November
	Mwatate	34.34	27.88	
	Taveta	52.1	32.47	
	Voi	38.54	34.02	
	Wundanyi	43.47	25.49	
NAROK	County	33.64	46.02	Kilgoris sub-county recovered substantially and it is now in the normal ranges for the period
	Narok-East	33.49	37.1	
	EmuruaDik irr	39.43	40.97	
	Kilgoris	16.8	44.46	
	Narok- North	42.68	45.37	
	Narok- South	31.75	41.33	
	Narok- West	38.67	55.25	

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 5). 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 3.0: 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 production Crop production

	Livestock mortality 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 1.0: Drought Phase Classification

