



THE PRESIDENCY
MINISTRY OF DEVOLUTION AND ARID AND SEMI ARID LANDS
STATE DEPARTMENT FOR ASALs
NATIONAL DROUGHT MANAGEMENT AUTHORITY

Drought Status Bulletin

August 2018



Summary

Recorded rains received in the ASAL areas from March to May 2018 resulted in good regeneration of forage. Currently, the condition of pasture and browse is good and is expected to last up to October while water sources for both livestock and households are expected to slightly change over the next three months. On-going harvesting of pulses, millet and sorghum has replenished household food stocks in the marginal agricultural counties thereby improving food availability. During the month of July, prices of cereals and legumes declined while those of livestock remained above average which has led to improved terms of trade for livestock keepers in nearly all the ASAL counties.

1.0 Drought status

1.1 Drought indicators

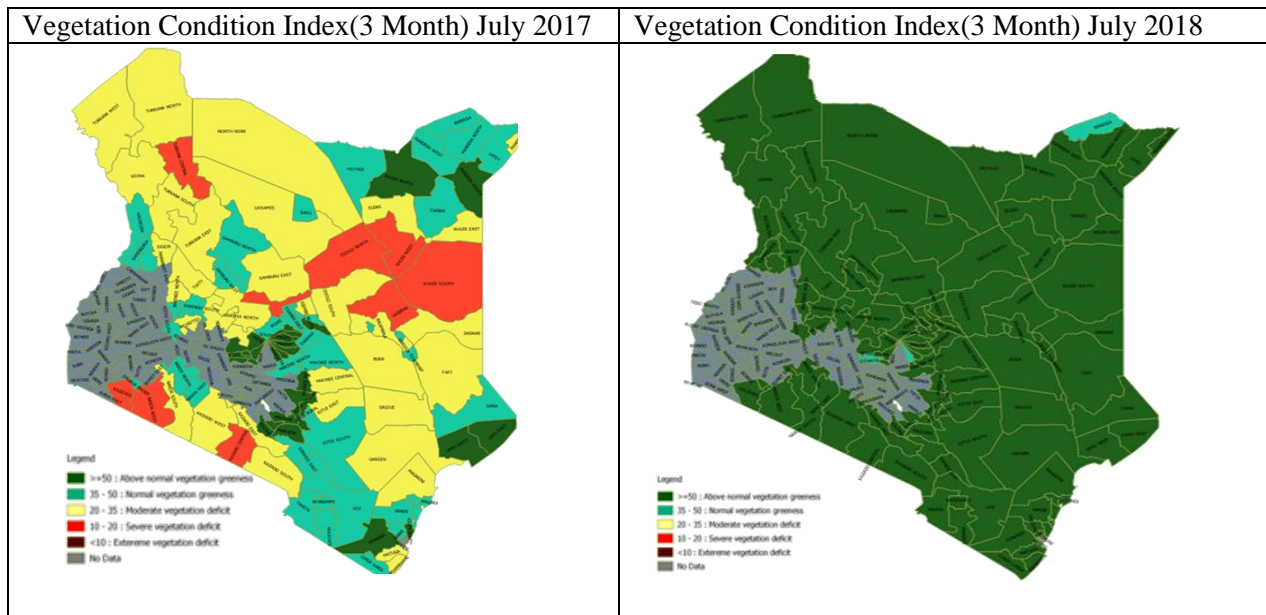
Rainfall

Most ASAL counties experienced generally cold and dry conditions during the month of July. However, a few counties such as Baringo, Embu, Kwale, West Pokot, Laikipia Samburu, Samburu and Lamu, received monthly average rainfall amounts that were normal to above normal in quantity. Overall for many counties, the above average March-April-May (MAM) 2018 rains has supported crop production and regeneration of pasture and browse for livestock, hence easing the effects of drought experienced in the first quarter of the year.

Vegetation condition

Figure 1 compares the vegetation condition index (VCI) in late July 2017 with that in late July 2018. The good performance of the March-April-May (MAM) 2018 seasonal rainfall is evident as it has resulted to high vegetation regeneration with all arid and semi-arid counties recording vegetation greenness values that are above normal ranges.

Figure 1: Comparison of Vegetation Condition Index (VCI), June 2017 and June 2018



Field observations confirms the VCI values as the current state of pasture and browse is generally above average for the season both in terms of quality and quantity. In Baringo, for example, 100 percent of the community key informants specified that pasture condition was good while 82 percent in Samburu specified that pasture condition was good. However, in most of the counties, pasture slightly reduced when compared with previous month due to high evapotranspiration rates and heavy grazing pressure.

Water sources

In almost all ASAL counties, majority of the open water sources such as water pans and dams have water and thus the water situation remained unchanged from what was reported in July 2018. As a result, average return distances to water for both households and livestock in most counties are stable and remained within seasonal ranges.

Livestock production

Livestock production indicators continued improving during the month of July. Body condition of all species of livestock picked up when compared with the previous month. The improvement in livestock body condition was attributed to adequate pasture and browse and short trekking distances from grazing areas to water points. Livestock productivity especially milk production has increased in several ASAL areas as shown in Table 2.

Table 1.0: Milk Production, June 2018

<i>Milk production</i>	<i>Trend</i>		
	Improving	Stable	Worsening
Below long term average (LTA)	Kajiado Narok Mandera	Garissa Wajir Tana river Kitui Samburu	
At / Close to LTA	Turkana	Meru North	
Above long term average (LTA)	Makueni Nyeri (Koenig) Tharaka Nithi (Tharaka) Lamu	West pokot Marsabit Embu (Mbeere) Laikipia Baringo Isiolo Kwale	Kilifi Taita taveta

Counties that have recorded an improvement in milk production are:-

- Lamu: Milk production increased by 50 percent compared to the preceding month
- Mandera: Milk production increased by 38 percent compared to the preceding month
- In Kajiado, milk production in the month of July recorded an increase of 13 percent compared to June 2018 average.
- Tharaka: Milk production increased by 13 percent

However, some counties such as Taita Taveta, Tana River and Kilifi recorded a decrease in milk production in July. The reduction in Tana River was attributed to the fact that livestock were in breeding season.

Crop production

The condition of crops in the ASAL counties such as Kitui, Makueni, Kwale, Embu (Mbeere), Tharaka, Meru North, Narok, and Nyeri (Kieni) is good and households expect to realize a normal to slightly above normal. Currently, harvesting of beans, green grams, cowpeas, millet, sorghum and dolichos is going in many areas however Cases of Fall Armyworm which were reported by the following counties: Kitui, Meru North and Tharaka may contribute to crop losses.

Terms of trade

Each month, the drought early warning system monitors the relative price of goats and maize, showing the number of kilogrammes of cereal that can be exchanged for one goat. Table 1 summarises the movements on the previous month and the trend.

In almost all counties the terms of trade (ToT) are above the long term average for the month. The largest rise in terms of trade were:

- In Mbeere: ToT were 77 percent higher than the long term average (LTA)
- Tharaka: ToT were 68 percent higher than LTA.
- Taita Taveta: ToT were 59 percent higher than LTA
- Lamu: ToT were 50 percent higher than LTA
- Kitui: ToT were 42 percent higher than LTA
- West Pokot: ToT were 36 percent higher than LTA

Favourable terms of trade are attributed to the fact that the price of goats had increased while the price of maize had reduced due to good performance of rains.

Table 2.0: Terms of trade, July 2018

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

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 (Table 2).

Overall, the trend in most ASAL counties is improving or stable. In the pastoral counties, improvement in the nutrition status of children is attributed to milk availability while in the marginal agricultural areas the positive trend is associated better dietary diversity due to availability of green vegetables, pulses and cereals. Some Counties such as, Samburu, Garissa, Tana River, Mandera and Narok which reported increased MUAC rates the previous month have recorded improved MUAC rates during the month of July except Turkana where there were some slight increase in MUAC rates attributed to reduced milk consumption and limited access to essential medical and nutrition services in some areas.

Table 3.0: Children at risk of malnutrition (MUAC), July 2018

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

1.2 Drought phase classification

On the basis of the range of indicators monitored above, all the 23 ASAL counties are currently categorized in the normal drought phase with the trend improving in five counties, stable in 13 counties and worsening in 5 counties as shown in Table 3.

Table 4.0: Drought phase classification, July 2018

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

2.0 Other food security challenges

- No major incidences of resource-based conflict were reported during the month under review. In all counties, livestock migration occurrences were minimal as a result of the good state of the rangeland resources.
- Border conflicts and tension for instance in Samburu where Incidences of cattle rustling in Baragoi left some people with gunshot wounds. Tension still remains high in the border with Isiolo following incidences of cattle theft last month.
- Incidents of insecurity were reported in Turkana North Sub County (Todonyang).
- In Tana River, farms and villages mainly in Tana Delta area are still flooded. People who were displaced by floods are still living in camps. In addition, most of the infrastructure and facilities destroyed by floods are yet to be rehabilitated.

3.0 Projected food security situation

Following the above-average March to May long rains received in most of the ASAL areas, pasture and water availability for livestock has increased significantly. In the pastoral areas, the available forage and water is projected to last up to the next rains in October. The abundant rangeland resources are expected to result to increased livestock productivity, especially average to above-average livestock prices and near-average milk production.

In the marginal agricultural counties, it is expected that crop production will be average to above average hence the long rains crop harvest is likely to improve food security in the agro pastoral areas by providing casual wage labour income earning opportunities and increasing household food availability during the period between July and September 2018.

4.0 Recommendations

- Enhance implementation of priority drought preparedness interventions
- Promote participatory livestock disease surveillance and active screening in all the identified hotspots and also intensify livestock disease control measures
- Continued advocacy for pasture conservation including deferred grazing management and participatory rangeland management
- Sensitize farmers on appropriate post-harvest management techniques in the marginal agricultural and agro-pastoral areas.
- Upscale nutritional screening in areas with high prevalence of children at risk of malnutrition.
- Provision of water treatment chemicals for households getting water from open water sources.
- Continue sensitization on, scouting for and monitoring of Fall Armyworm infestation in order to avert crop losses.

Annex 1.0 Vegetation Condition Index (VCI-3 month) as at 25th June 2018

ADMINISTRATIVE UNIT				DROUGHT CATEGORIES/REMARKS		
COUNTY	Sub County	VCI-3 month as at 25 th June 2018	VCI-3 month as at 30 th July 2018	Colour	VCI values (3-month)	Drought Category
					≥50	Vegetation greenness above normal
					35 to 50	Normal vegetation greenness
					21 to 34	Moderate vegetation deficit
					10 to 20	Severe vegetation deficit
					<10	Extreme vegetation deficit
BARINGO	County	92.15	94.57	Vegetation greenness remained above normal in all parts of the county.		
	Central	83.3	84.18			
	Eldama	63.55	65.61			
	Mogotio	97.39	101.87			
	North	89.28	89.71			
	South	94.88	93.1			
	Tiaty	98.15	102.66			
MANDERA	County	68.12	69.3	All sub counties maintained above normal vegetation greenness except Banissa which dropped to normal vegetation greenness and thus require close monitoring		
	Banissa	59.13	44.51			
	M East	80.44	90.62			
	Lafey	70.8	83.75			
	M North	65.89	64.71			
	M South	74.22	81.13			
	M West	63.91	58.52			
TURKANA	County	91.17	89.09	All sub counties maintained vegetation greenness above normal		
	T Central	98.55	101.02			
	T. East	98.28	104.16			
	T. Loima	96.23	91			
	T. North	88.48	84.52			
	T. South	105.43	106.92			
	T. West	75.5	68.3			
MARSABIT	County	99.57	91.42	All sub counties maintained vegetation greenness above normal		
	Laisaimis	105.51	102.02			
	Moyale	82.28	69.8			
	N. Horr	100.48	90.18			
	Saku	102.19	105.34			
WAJIR	County	81.92	75.77	All sub counties maintained vegetation greenness above normal.		
	W East	89.17	89.42			
	W.Eldas	84.15	69.98			
	W. North	85.42	82.87			
	W. South	72.78	70.52			
	W.Torbaj	84.29	78.78			
	W West	95.59	75.6			
SAMBURU	County	74.91	80.15	All sub counties maintained vegetation greenness above normal		
	S East	64.54	63.58			
	S. North	85.07	97.53			
	S. West	82.06	87.65			

ADMINISTRATIVE UNIT		DROUGHT CATEGORIES/REMARKS				
COUNTY	Sub County	VCI-3 month as at 28 th May 2018	VCI-3 month as at 25 th June 2018	Colour	VCI values (3-month)	Drought Category
					≥50	Vegetation greenness above normal
					35 to 50	Normal vegetation greenness
					21 to 34	Moderate vegetation deficit
					10 to 20	Severe vegetation deficit
					<10	Extreme vegetation deficit
GARISSA	County	84.8	81.83	All sub counties maintained vegetation greenness above normal		
	Balambala	119.75	109.8			
	Daadab	75.22	75.03			
	Fafi	71.19	69.75			
	Ijara	68.08	70.2			
	Lagdera	125.34	114.91			
	Dujis	94.63	81.04			
ISIOLO	County	99.17	80.83	All sub counties maintained vegetation greenness above normal		
	I. North	96.87	77.14			
	I. South	102.69	86.47			
TANA RIVER	County	87.42	79.95	All sub counties maintained vegetation greenness above normal.		
	Bura	104.16	105.58			
	Galole	86.55	75.92			
	Garsen	73.76	60.72			
KAJIADO	County	91.32	89.32	All sub counties maintained vegetation greenness above normal.		
	K. Central	87.33	81.36			
	K. East	87.49	82.46			
	K. North	61.97	52.46			
	K. South	104.09	105.6			
	K. West	85.53	84.4			
LAIKIPIA	County	84.44	89.05	All sub counties maintained vegetation greenness above normal.		
	L. East	95	88.42			
	L. North	80.3	89.51			
	L. West	87.12	88.49			
THARAK A NITHI	County	65.04	66.49	Significant improvement especially for Chuka and Maara to above normal vegetation greenness.		
	Chuka	59.18	69.99			
	Maara	57.99	67.71			
	Tharaka	69.5	64.78			
WEST POKOT	County	78.05	79.5	All sub counties maintained vegetation greenness above normal		
	Kacheliba	83.83	83.56			
	Kapenguria	72.83	76.93			
	Pokot South	62.51	64.01			
	Sigor	81.12	83.45			
EMBU	County	58.4	56.53	Vegetation greenness above normal except Manyatta which also improved from moderate vegetation deficit to normal vegetation greenness.		
	Manyatta	31.12	43.7			
	Mbeere North	63.37	55.14			
	Mbeere South	67.59	61.12			
	Runyenjes	43.75	57.2			

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					≥50	Vegetation greenness above normal
					35 to 50	Normal vegetation greenness
					21 to 34	Moderate vegetation deficit
					10 to 20	Severe vegetation deficit
					<10	Extreme vegetation deficit
KITUI	County	85.05	86.91	All sub counties maintained vegetation greenness above normal		
	Kitui Central	77.16	81.51			
	Kitui East	85.09	91.67			
	Mwingi Central	86.64	98.52			
	Mwingi North	76.75	80.63			
	Mwingi West	80.7	78.35			
	Kitui Rural	80.46	90.26			
	Kitui South	88.67	83.53			
	Kitui West	83.66	91.96			
MAKUE NI	County	85.98	98.29	All sub counties maintained vegetation greenness above normal		
	Kaiti	58.44	67.56			
	Kibwezi East	95.21	103.81			
	Kibwezi West	86.41	105.27			
	Kilome	73.19	72.78			
	Makueni	88.66	108.71			
	Mbooni	81.39	88.18			
MERU	County	65.85	72.25	Vegetation greenness above normal with improvement in North Imenti.		
	Buuri	63.25	68.57			
	Central Imenti	53.58	68.27			
	Igembe Central	75.24	80.7			
	Igembe North	77.3	75.43			
	Igembe South	72.94	80			
	North Imenti	35.13	65.77			
	South Imenti	52.7	63.58			
	Tigania East	65.25	66.76			
	Tigania West	70.31	79.94			
NYERI	County	62.6	66.81	Vegetation greenness above normal with improvement in Mathira, Mukurweini and Othaya however there is reduction in Tetu however the vegetation greenness is still normal		
	Kieni	71.75	76.32			
	Mathira	47.98	61.69			
	Mukurweini	44.67	58.89			
	Town	69.1	66.74			
	Othaya	49.81	47.17			
	Tetu	52.05	47.19			
KILIFI	County	74.02	71.61	The vegetation greenness is above normal across the sub counties		
	Ganze	81.57	74.34			
	Kaloleni	83.61	82.54			

	Magarini	72.37	69.54			
	Malindi	60.54	67.32			
	Kilifi-North	62.06	71.05			
	Rabai	72.51	74.39			
	Kilifi-South	73.14	73.2			
KWALE	County	75.96	65.95	The vegetation greenness is above normal across the sub counties		
	Kinango	75.93	64.56			
	Lungalunga	82	67.98			
	Matuga	70.81	71.61			
	Msambweni	60.23	57.98			
LAMU	County	71.53	77.85	The vegetation greenness is above normal across the sub counties		
	Lamu East	73.66	73.75			
	Lamu West	70.3	80.23			
ADMINISTRATIVE UNIT		DROUGHT CATEGORIES/REMARKS				
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					≥50	Vegetation greenness above normal
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					<10	Extreme vegetation deficit
TAITA TAVETA	County	87.13	81.92	The vegetation greenness is above normal across the sub counties		
	Mwatate	78.67	81.02			
	Taveta	97.95	103.82			
	Voi	84.27	70.89			
	Wundanyi	96	106.35			
NAROK	County	68.23	72.25	Vegetation greenness above normal with Narok North improving to normal vegetation greenness.		
	Narok-East	60.65	70.63			
	Emurua Dikirr	76.06	80.46			
	Kilgoris	66.73	67.27			
	Narok-North	38.19	59.17			
	Narok-South	71.02	76.49			
	Narok-West	83.93	77.41			

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 5). 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 5.0: 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

