



NATIONAL DROUGHT MANAGEMENT AUTHORITY

National Drought Early Warning Bulletin

OCTOBER 2022

1. Drought situation overview

The drought situation continues to worsen in twenty (20) of the 23 ASAL counties. This is attributed to the four successive failed rains seasons. The number of people in need of humanitarian assistance currently stands at **4.35 million** based on 2022 long rains food and nutritional security assessment report.

Eleven (11) counties namely; Garissa, Isiolo, Kajiado, Kitui, Mandera, Marsabit, Laikipia, Samburu, Tana River, Turkana, Wajir, are in **Alarm** drought phase while **Nine (9)** counties including Embu, Kilifi, Kwale, Makueni, Meru, Narok, Nyeri, Tharaka Nithi and Taita Taveta are in the **Alert** drought phase. The remaining three (3) counties including Baringo, West Pokot and Lamu are in **Normal** drought phase.

Acute malnutrition has also been noted across the counties with **942,000** cases of children aged 6-59 months acutely malnourished and **134,000** cases of pregnant or lactating women acutely malnourished in need of treatment.

NB/ For detailed county analysis, please visit the NDMA website www.ndma.go.ke

2. Key indicators performance

2.1 September Rainfall Performance

Analysis of the September 2022 monthly rainfall indicates that the Pastoral North East (PNE) counties including; Mandera, Wajir, Isiolo, Tana River and parts of Garissa received trace rainfall between < 10mm to 20mm of rainfall totals. The South East Marginal Agriculture (SEMA) counties; Tharaka Nithi, Embu, Kajiado, Meru, Makueni and Kitui counties also received trace rainfall. The Coast Marginal Agriculture (CMA) counties; Kwale, Kilifi and Lamu counties received (<25). Some parts of Agro-pastoral (AGP) cluster; Baringo and West Pokot received JJA rainfall that was normal in the range of 101mm - 125mm of rainfall totals with some areas especially Pokot south, Eldama ravine, Narok West and Kilgoris receiving high rainfall totals between 176 - 200mm.

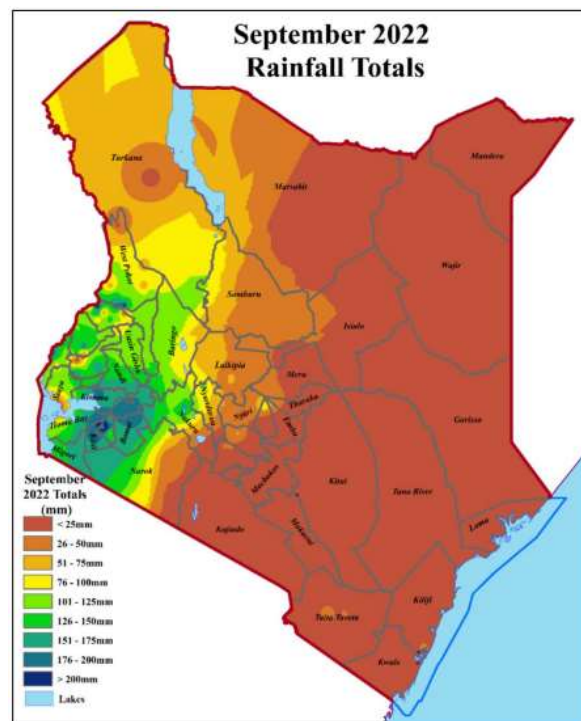


Figure 1. September 2022 Rainfall Performance

2.2 Rainfall Forecast for October

The rainfall outlook for the month of October is illustrated in figure 2. Most ASAL counties including Marsabit, Samburu, Isiolo, Wajir, Mandera, Garissa, Meru, Kitui, Tana River, Lamu, Kilifi, Kwale, Taita Taveta, Makeni, Tharaka Nithi, Embu and Kajiado are forecasted to receive highly depressed rainfall.

Pocket areas in the counties of Turkana, Samburu, Laikipia, Nyeri, Embu, Kajiado and Narok are forecasted to receive Near average rainfall.

During the month of October, Turkana, West Pokot, Baringo, parts of Laikipia and Narok are forecasted to receive Near average with a slight tendency to above average rainfall. This is in tandem with expected timely onset of OND rainfall season in the western parts of Kenya.

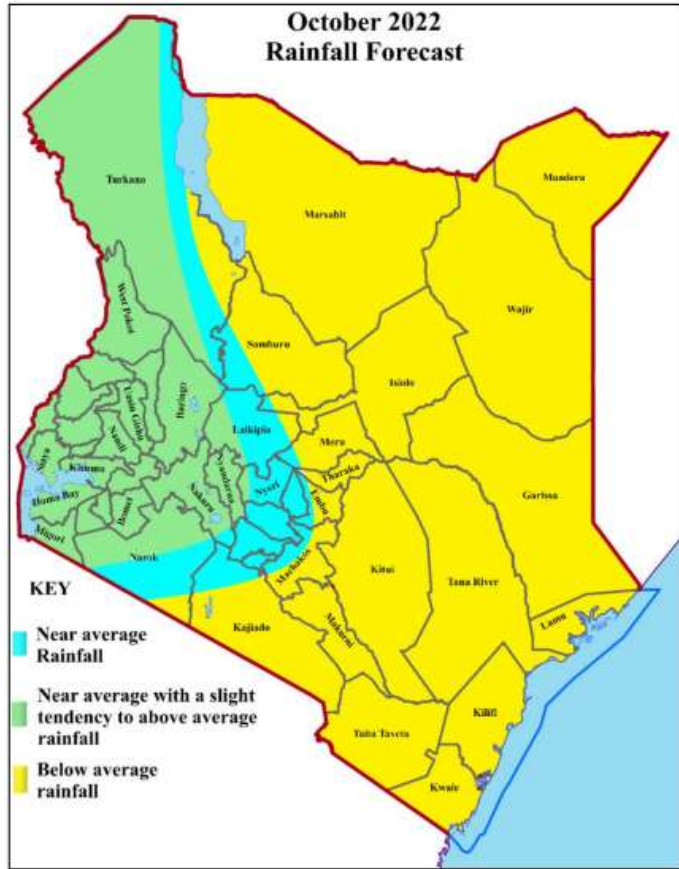


Figure 1. October 2022 Rainfall forecast

2.3 Vegetation condition

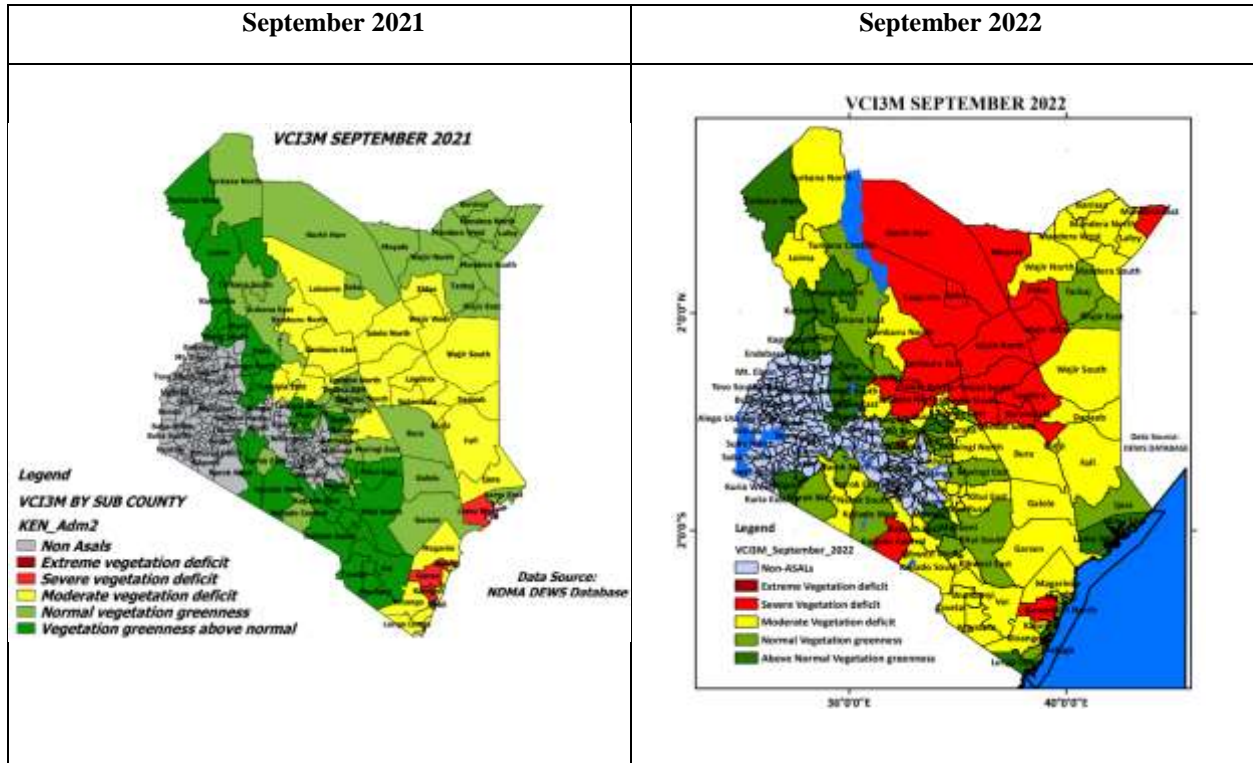


Figure 3: Maps comparing Vegetation Condition (VCI) September 2021/2022

The month of September 2022 indicated a slight deterioration in vegetation condition across the ASALs compared to August 2022. The deterioration is associated with poor performance of off-season showers of June-July-August (JJA) season in most ASAL counties except for good performance in the western parts of Kenya, Turkana, Baringo and West Pokot counties. No county/sub-county was in **Extreme vegetation deficit**.

Two (2) counties namely Isiolo and Marsabit are in **Severe vegetation deficit** while **nine (9)** counties including; Mandera, Samburu, Wajir, Garissa, Kajiado, Laikipia, Kilifi, Taita Taveta and Tana River are in **Moderate vegetation deficit**. The following nine (9) counties including; Turkana, Tharaka Nithi, Makueni, Nyeri, Meru, Embu, Kitui, Kwale and Narok recorded **Normal vegetation greenness**. The following **three (3)** counties including; Baringo, West Pokot and Lamu, recorded **Above normal vegetation greenness**. The current vegetation condition in September 2022 is worse as compared to the same period in September 2021 as shown in (Figure 2). A summary of the vegetation condition across ASAL counties as at end of September 2022 is provided in Figure 1.

The situation for each county disaggregated by sub-county is provided in Table 1.

Category	County	Sub Counties (No)
Extreme		
Severe vegetation deficit	(2) Marsabit, Isiolo	(17) Garissa (Balambala, Lagdera), Isiolo (North, South), Kajiado (Central), Kilifi (Ganze), Laikipia (North), Mandera (East), Marsabit (Moyale, Saku, Laisamis, North Horr), Meru (Igembe North), Nyeri (Town), Samburu (East), Wajir (West, Eldas).
Moderate vegetation deficit	(9) Mandera, Wajir, Samburu, Garissa, Tana River, Kajiado, Laikipia, Kilifi, Taita Taveta	(42) Embu (Mbeere South), Garissa (Township, Fafi, Daadab), Kajiado (East, North, South), Kilifi (Kaloleni, Magarini, Malindi), Kitui (Central, East, Rural, Mwingi North), Kwale (Kinango), Laikipia (East), Makueni (Kibwezi East, Kilome), Mandera (Lafey, Banissa, North, West, South), Meru (Buuri, Igembe Central, Tigania East, Tigania West), Nyeri (Mathira), Taita Taveta (Voi, Mwatate, Wundanyi, Taveta), Tana River (Bura, Garsen, Galole), Tharaka Nithi (Tharaka), Turkana (Loima, North), Wajir (North, South), Narok (South, East).
Normal vegetation greenness	(9) Turkana, Tharaka Nithi, Embu, Kitui, Makueni, Narok, Meru, Nyeri, Kwale	(30) Embu (Manyata, Mbeere North, Runyenjes), Garissa (Ijara), Kajiado (West), Kilifi (North), Kitui (South, Mwingi Central, Mwingi West), Kwale (Matuga, Msambweni), Laikipia (West), Makueni (Kaiti, Kibwezi West) Meru (Igembe South, North Imenti), Nyeri (Kieni, Mukurweini, Othaya, Tetu), Samburu (East), Tharaka Nithi (Chuka, Maara), Turkana (East, Central), Wajir (Tarbaj, East), West Pokot (Sigor) Narok (North, West).
Vegetation greenness Above normal	(3) Baringo, West Pokot, Lamu	(22) Baringo (Central, North, South, Eldama Ravine, South, Tiaty), Kilifi (South, Rabai), Kwale (Lunga Lunga), Lamu (East, West), Makueni (Makueni, Mbooni), Meru (South Imenti, Central Imenti), Turkana (South, West) West Pokot (Kacheliba, Kapenguria, Pokot South), Narok (Emurua Dikirr, Kilgoris).

Table 1.0: Vegetation Condition Index (VCI), September 2022

3. Livestock production

3.1 Pasture and browse condition

The condition of pasture and browse in most of the arid and semi-arid counties was generally poor as shown in Table 2. The current pasture and browse conditions are below normal as compared to normal years with no improvement realized when compared to the previous month due to minimal precipitation in the rangelands. The current pasture and browse conditions are estimated to last for less than one month in livestock concentration grazing areas. The condition of pasture and browse was however good in Baringo, West Pokot, and Lamu counties.

Table 2.0: Pasture and browse condition, September 2022

<i>Pasture condition</i>			<i>Browse condition</i>		
<i>Poor</i>	<i>Fair</i>	<i>Good</i>	<i>Poor</i>	<i>Fair</i>	<i>Good</i>
Embu Garissa Isiolo Kajiado Kitui Laikipia Makueni Mandera Marsabit Meru (North) Narok Taita Taveta Tana River Tharaka Nithi Turkana Wajir	Kilifi Kwale Nyeri Samburu	Baringo Lamu West Pokot	Embu Garissa Isiolo Kajiado Kitui Makueni Mandera Marsabit Taita Taveta Tharaka Nithi Turkana Wajir	Kilifi Kwale Laikipia Lamu Meru (North) Narok Nyeri Samburu Tana River	Baringo West Pokot

3.2 Livestock body condition

The current livestock body condition ranged between fair to poor across ASAL counties. Generally, the current body condition of most livestock is below normal in comparison to similar periods during a normal year. Consequently, most counties reported livestock body condition as fair to poor conditions except for Kilifi and West Pokot counties which reported good body condition for cattle and goats as shown in Table 3. The fair to poor condition is as result of poor regeneration of pasture and browse that has direct impact on livestock body condition.

Table 3.0: Livestock body condition, September 2022

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

3.3 Milk production

Milk production was below normal due to the poor forage regime in the counties experiencing drought situation. The JJA season did not generate adequate showers for minor pasture and browse generation. However, Kwale, Makueni and Tharaka Nithi counties recorded above the LTA. Milk production trends in the 23 ASAL counties is presented in table 4.0.

Table 4.0: Milk production, September 2022

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

NB: Turkana had zero readings

3.4 Cattle prices

In majority of the counties, cattle prices remained unstable compared to the previous month owing to poor livestock body condition as illustrated in Table 5. The current cattle prices are below normal in most of the counties in comparison to similar periods during a normal year. However; Kwale, Lamu, Makueni, Narok and Tana River reported above the LTA due to increased demand of livestock. Five counties reported an improving trend in prices whereas eight counties reported a worsening trend as illustrated in Table 5.

Table 5.0: Cattle prices, September 2022

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

3.5 Goat Prices

Goat prices in most of the ASAL counties were within the long-term averages. However, majority of the counties hard hit by drought recorded below LTA. The trend was however stable and worsening. There is an improving trend in Kajiado and Kwale. The following counties, Garissa, Isiolo, Nyeri and Tharaka Nithi reported a worsening trend.

Table 6.0: Goat Prices, September 2022

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

3.6 Livestock Mortality

Diminished pasture and water resources in most of the ASAL counties led to increased trekking distances to water points and grazing sites for livestock leading to worsening livestock body condition scores and accelerating mortalities across all species. High livestock mortalities have been reported in Samburu, Mandera, Isiolo, Lamu, Marsabit and Garissa counties.

3.7 Crop production

In the marginal agricultural areas of CMA counties: In Kilifi County, few farmers were still harvesting maize, green grams and cowpeas during the month under review. In some areas, in Kwale County, harvesting of seasonal crops was complete with harvests having been realized only in the mixed farming livelihood zone while the livestock farming livelihood zone posted nil harvests.

In the SEMA counties: In Kitui, Makueni and Tharaka Nithi counties, land preparation had started in anticipation of the 2022 short rains. In addition to rain-fed cropping, farmers along the main rivers (Athi, Tana, Tiva, Thua Kikuo, Kaiti and Thwake) had horticultural crops that were at various stages of development.

3.7.1 Maize prices

Maize prices in all ASAL counties were high and above average affecting the purchasing power of households. The prices were on an increasing trend and thus require close monitoring. As compared to similar period, the prices were unstable as demonstrated in Table 7.

Table 7.0: Maize prices, September 2022

<i>Indicat or</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>Maize Prices</i>	Baringo Garissa Embu Isiolo Kajiado Kilifi Kitui Kwale Laikipia Makueni Mandera Marsabit Meru Narok Nyeri Samburu Taita-Taveta Tana River Tharaka Nithi Turkana Wajir West Pokot Lamu			Baringo Garissa Kajiado Marsabit Meru Nyeri Tana River Wajir	Isiolo Kitui Lamu Mandera Tharaka Nithi Turkana Embu Laikipia Makueni Narok West Pokot	Kilifi Kwale Samburu Taita Taveta

4. WATER RESOURCE ACCESS

4.1 Access to water for households

In comparison to the long-term average, **17 counties** have their distances to water for households currently above the LTA. In comparison with the previous month, there is a general increasing trend in distance to household from water source. The current return distance ranges from 3 kilometers in Baringo to 16.3 kilometers in Mandera as compared to an average LTA of 5 kilometers normally for arid counties. West Pokot had the lowest trekking distance of 2.6 kilometers as compared to Kajiado that had the highest of 8.1 kilometers for Semi-arid counties. The trend in distances walked by households to access water is provided in Table 8.

Table 8.0: Distance from households to main water sources, September 2022

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

4.2 Access to water for livestock

The trend in the distance trekked by livestock in search of water is presented in Table 9. Compared with the previous month, the current trekking distance to water source from grazing areas is increasing with Marsabit having the highest livestock trekking distance at 38.9 kilometers and Baringo with lowest at 8.5 kilometers for Arid counties. Meru North had the highest livestock return trekking distance as compared to Narok and West Pokot that had lowest trekking distance for Semi-arid counties. This is illustrated in Table 9.0.

Table 9.0: Distance from livestock grazing area to main water sources, September 2022

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

	Taita Taveta Tana River Turkana					Kitui
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5. Terms of trade

Table 10 shows the trends in terms of trade (ToT) between the relative prices of goats and maize in ASAL counties. In most counties, ToT values are below the long-term average (LTA). Laikipia had the most favorable terms of trade for arid counties at 52 percent while Turkana had the most unfavorable terms of trade at 16.1percent for arid counties. Kilifi had the most favorable terms of trade at 82 percent and Nyeri unfavorable terms of trade at 30 percent for Semi-arid counties. The unfavorable terms of trade point to worsening drought conditions.

Table 10.0: Terms of Trade, September 2022

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

6. Health and nutrition

Table 11 shows the trend in the proportion of children at risk of malnutrition (MUAC) across the ASAL counties. Marsabit, Wajir, Turkana, Garissa, Samburu, Tana River, Mandera recorded serious to extremely critical situation mostly attributed to the continued reduced milk consumption

at household level, crisis coping strategies being employed by households and poor dietary diversity.

Table 11.0: Children at risk of malnutrition (MUAC), September 2022

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

7. Drought phase classification

Table 12 sums up the trends in drought phase classification as at the end of September 2022. Based on the range of indicators monitored above, **nine (9)** counties including Embu, Tharaka Nithi, Kilifi, Kwale, Makueni, Meru, Narok, Nyeri and Taita Taveta are in the **Alert drought phase**, while **three (3)** counties including Baringo, Lamu and West Pokot remain in the **Normal drought phase**. **Eleven (11)** counties namely; Garissa, Isiolo, Kajiado, Kitui, Mandera, Marsabit, Laikipia, Samburu, Tana River, Turkana, Wajir, are in **Alarm drought phase**. During the month under review, two (2) counties reported an improving trend, two (2) counties recorded a stable trend, while nineteen (19) counties reported a worsening trend.

Table 12.0: Drought phase classification, September 2022

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

8. Recommendations

Food and safety nets

- Provision of food assistance and scaling up of cash transfers targeting households which are currently food insecure.

Livestock sector

- Provision of livestock feeds and supplements.
- Commercial and slaughter off-take
- Treatment and vaccination against emerging livestock diseases.

Water sector

- Scale up water trucking interventions to communities and institutions.
- Rehabilitation and maintenance of water facilities.
- Provision of fuel subsidies to motorized strategic boreholes.
- Procurement and distribution of water storage tanks.

Health and nutrition sector

- Support on hygiene and sanitation promotions.
- Provisions for severe acute malnutrition - Ready to Use Therapeutic Food (RUTF).
- Supplies for moderate acute malnutrition - Ready to Use Supplementary Food (RUSF).

Education sector

- Enhance hygiene promotion in learning institutions.
- Provision of food to subsidize school fees in boarding secondary schools.

Peace and security sector

- Facilitating intra/inter communities peace dialogues and resource use agreements.
- Coordination of peace and security activities in conflict prone counties.

Coordination

- Support County Steering Groups (CSGs) to effectively coordinate drought response activities.

ANNEX 1: Vegetation Condition Index (VCI-3 month) as at 25th September 2022

ADMINISTRATIVE UNIT		VEGETATION GREENNESS		DROUGHT CATEGORIES/REMARKS		
COUNTY	Sub County	VCI-3 month as at 28 th August 2022	VCI-3 month as at 25 th Sept 2022	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	52.79	63.98	The entire county and five of its sub-counties recorded Above Normal vegetation greenness which was stable when compared with the previous month of August. Mogotio improved to above normal vegetation greenness.		
	Central	61.0	66.68			
	Eldama	68.68	68.42			
	Mogotio	49.57	60.84			
	North	50.89	65.93			
	South	50.74	61.82			
	Tiaty	50.54	63.59			
MANDERA	County	33.8	28.02	The county recorded moderate vegetation condition which is stable when compared with the previous month of August. Mandera east worsened from moderate vegetation deficit to severe vegetation deficit.		
	Banissa	35.78	29.18			
	M East	21.25	16.19			
	Lafey	30.52	22.76			
	M North	33.73	27.51			
	M South	39.54	34.46			
	M West	32.62	28.64			
TURKANA	County	37.56	41.54	The county recorded a stability in vegetation greenness but remained at normal vegetation condition during the month September.		
	T Central	36.14	40.4			
	T. East	30.57	46.91			
	T. Loima	33.32	34.69			
	T. North	32.45	31			
	T. South	37.97	53.19			
	T. West	53.05	50.65			
MARSABIT	County	15.57	13.52	The county remained stable at severe vegetation condition during the month of September.		
	Laisaimis	16.42	14.85			
	Moyale	17.98	13.9			
	N. Horr	14.27	13.94			
	Saku	19.31	17.93			
WAJIR	County	31.79	27.91	The County remained stable at moderate vegetation greenness. Eldas and Wajir West sub county worsened to severe vegetation deficit.		
	W East	43.6	38.21			
	W. Eldas	20.98	17.2			
	W. North	35.46	30.69			
	W. South	29.84	27.33			

ADMINISTRATIVE UNIT		VEGETATION GREENNESS		DROUGHT CATEGORIES/REMARKS		
COUNTY	Sub County	VCI-3 month as at 28 th August 2022	VCI-3 month as at 25 th Sept 2022	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
	W. Tarbaj	45.4	40.75			
	W West	20.84	15.74			
SAMBURU	County	19.69	21.46			The county worsened to severe vegetation deficit from Moderate vegetation deficit during the month under review.
	S East	13.2	12.5			
	S. North	26.2	27.9			
	S. West	23.64	35.88			
GARISSA	County	30.61	27.14			The county remained stable at moderate vegetation deficit during the month under review. Fafi and Ijara worsened to moderate vegetation deficit.
	Balambala	13.92	16.24			
	Daadab	23.71	22.36			
	Fafi	36.4	30.88			
	Ijara	50.22	41.69			
	Lagdera	11.26	12.35			
	Dujis	25.92	26.82			
ISIOLO	County	13.77	13.58			The county and all its sub-counties recorded severe vegetation deficit during the month of September. This was stable when compared to last month.
	I. North	12.92	12.3			
	I. South	15.08	15.54			
TANA RIVER	County	30.92	31.17			The county and all one of its sub counties recorded moderate vegetation deficit during the month of September.
	Bura	30.28	32.01			
	Galole	28.34	29.09			
	Garsen	33.09	31.76			
KAJIADO	County	24.84	27.5			The county recorded moderate vegetation deficit. Kajiado central and east maintained at severe vegetation deficit during the month of September.
	K. Central	16.91	18.35			
	K. East	17.96	23.77			
	K. North	27.29	27.55			
	K. South	19.53	24			
	K. West	36.51	37.12			
LAIKIPIA	County	20.5	27.32			The County recorded moderate vegetation deficit which was a stability. Laikipia West also remained at normal vegetation greenness while Laikipia North worsened to Severe Vegetation greenness.
	L. East	16.45	24.22			
	L. North	12.84	18.1			
	L. West	36.8	46.07			
THARAKA NITHI	County	41.03	38.38			The county recorded normal vegetation greenness during the month under review which was a stable trend as compared to the previous month of August.
	Chuka	48.09	41.68			
	Maara	56.89	47.94			

ADMINISTRATIVE UNIT		VEGETATION GREENNESS		DROUGHT CATEGORIES/REMARKS		
COUNTY	Sub County	VCI-3 month as at 28 th August 2022	VCI-3 month as at 25 th Sept 2022	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
	Tharaka	33.31	34.09			
WEST POKOT	County	48.7	59.31			The County and all its sub-counties recorded above normal vegetation greenness during the month under review which was an improvement when compared with the previous month of August.
	Kacheliba	46.56	57.8			
	Kapenguria	57.04	67.98			
	Pokot South	61.38	68.63			
	Sigor	38.05	49.21			
EMBU	County	30.55	36.17			The county and all its sub-counties recorded normal vegetation greenness.
	Manyatta	38.13	35.85			
	Mbeere North	27.12	38.91			
	Mbeere South	26.46	32.93			
	Runyenjes	45.16	42.55			
KITUI	County	34.6	35.04			The county recorded normal vegetation greenness which was an improvement from moderate vegetation deficit during the month of September.
	Kitui Central	22.16	24.82			
	Kitui East	33	34.36			
	Mwingi Central	36.99	35.32			
	Mwingi North	30.06	29.87			
	Mwingi West	32.9	40.81			
	Kitui Rural	28.1	30.31			
	Kitui South	37.93	37.78			
	Kitui West	28.49	32.17			
MAKUENI	County	36.21	39.95			The county recorded normal vegetation greenness during the month under review which was a stable trend as compared to August.
	Kaiti	36.12	40.65			
	Kibwezi East	30.68	32.73			
	Kibwezi West	31.97	36.51			
	Kilome	20.29	25.98			
	Makueni	52.37	55.49			
MERU	County	32.99	38.13			The county recorded normal vegetation greenness an improvement from moderate vegetation deficit during the last month.
	Buuri	27.62	34.19			
	Central Imenti	54.11	56.8			
	Igembe Central	29.75	34.9			
	Igembe North	14.81	19.69			
	Igembe South	42.78	45			
	North Imenti	31.74	43.78			
	South Imenti	65.76	65.19			

ADMINISTRATIVE UNIT		VEGETATION GREENNESS		DROUGHT CATEGORIES/REMARKS		
COUNTY	Sub County	VCI-3 month as at 28 th August 2022	VCI-3 month as at 25 th Sept 2022	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
	Tigania East	26.6	34.95			
	Tigania West	26.11	33.09			
NYERI	County	40.07	38.94			The county and one of its sub counties noted a stability at normal vegetation greenness. Township improved from extreme vegetation deficit to severe vegetation deficit.
	Kieni	43.96	42.17			
	Mathira	28.82	27.15			
	Mukurweini	42.43	38.54			
	Othaya	43.26	43.93			
	Tetu	48.16	45.12			
	Township	0.99	11.91			
KILIFI	County	29.7	25.45			The vegetation condition in the county maintained at moderate vegetation greenness during the month of September. Ganze worsened to severe vegetation deficit.
	Ganze	21.84	18.85			
	Kaloleni	32.59	33.93			
	Magarini	27.81	23.47			
	Malindi	37.62	26.7			
	Kilifi-North	48.81	38.7			
	Kilifi-South	48.81	52.97			
KWALE	County	32.42	36.8			The county recorded an improvement to normal vegetation greenness from moderate vegetation greenness during the month of September.
	Kinango	22.8	27.62			
	Lungalunga	45.06	52.24			
	Matuga	47.79	45.46			
	Msambweni	46.9	49.73			
LAMU	County	71.51	61.93			The County and all its sub-counties recorded above normal vegetation greenness. All the sub-counties showed improvement.
	Lamu East	68.34	58.22			
	Lamu West	73.34	64.08			
TAITA TAVETA	County	24.52	27.5			The county and all its sub-counties recorded moderate vegetation deficit which was stable when compared to the previous month of August.
	Mwatate	23.14	24.26			
	Taveta	22.09	27.96			
	Voi	25.44	27.72			
	Wundanyi	30.4	33.57			
NAROK	County	42.13	41.46			There was constancy in vegetation cover in the county at normal vegetation greenness during the month of September.
	Narok-East	43.19	33.46			
	Emurua Dikirr	56.29	65.18			
	Kilgoris	46.55	52.98			
	Narok-North	52.51	39.72			
Narok-South	34.68	31.83				

ADMINISTRATIVE UNIT		VEGETATION GREENNESS		DROUGHT CATEGORIES/REMARKS		
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					>=20 - <35	Moderate vegetation deficit
					>=10 - <20	Severe vegetation deficit
					<10	Extreme vegetation deficit
	Narok-West	40.48	47.59			

Annex 2: 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
Utilization	MUAC (Mid-Upper Arm Circumference) Coping strategies Food consumption score	Nutrition Coping strategies

Annex 3. Summary of the drought early warning system

Each month, field monitors collect data in several 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 indicators are monitored, capturing different kinds of impact (Table 12). The combined analysis from all four indicator groups then determines the drought phase: normal, alert, alarm, emergency or recovery (Figure 4). Identifying the correct drought phase helps to guide the most appropriate response for that stage in the drought cycle.

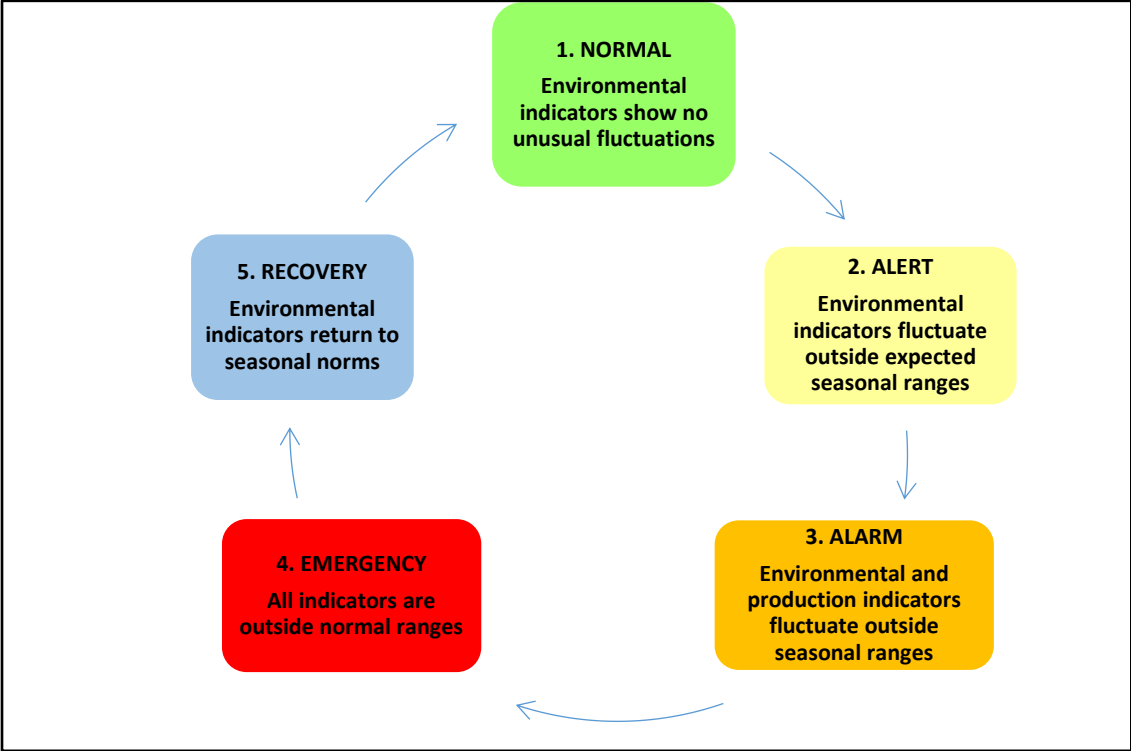


Figure 4.0: Drought Phase Classification