



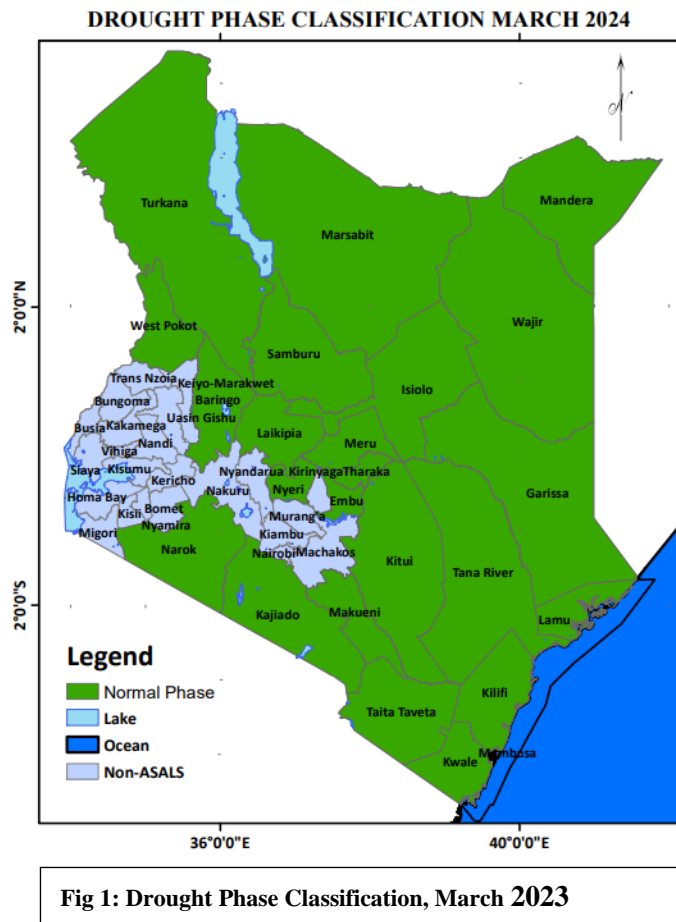
NATIONAL DROUGHT MANAGEMENT AUTHORITY

National Drought Early Warning Bulletin

March 2024

1. Drought Situation Overview

All the 23 ASAL counties continues to register stable drought situation where 'Normal' phase based on the range of environmental, production, access and utilization indicators monitored that fell within their usual ranges is registered across the counties. The onset of the long rains 2024 season has been predicted to be characterised by enhanced rains, in some areas with associated flood risks. Floods and other enhanced rains risks is likely to continue undermining drought recovery at household level. Generally, the drought situation is expected to continue in normal phase across the 23 ASAL counties as the wet season sets in.



According to last food security assessment, Short Rains Assessment (SRA) 2023, number of people in need of assistance stands at 1.9 million. Acute malnutrition has also been noted across the counties with 847,932 children aged 6 to 59 months and 124,359 pregnant and breastfeeding mothers are currently malnourished acutely in need of treatment. Figure 1.0 shows drought phase classification for the month of March 2023.

1.1 Observed drought indicators

1.1.1 March 2024 Rainfall Performance

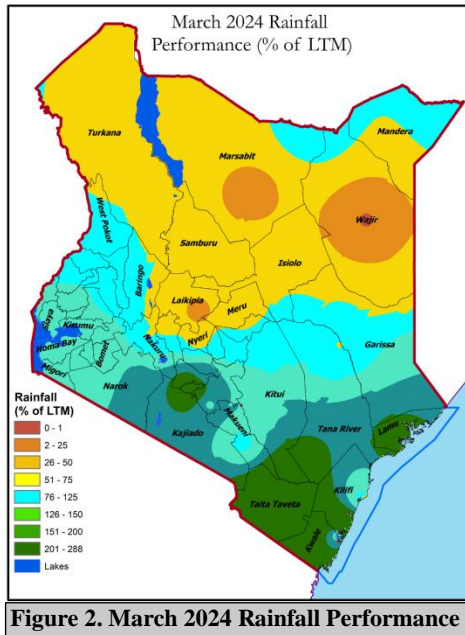


Figure 2. March 2024 Rainfall Performance

The analysis of the March 2024 monthly rainfall performance indicates that early onset of MAM 2024 long rains in some counties especially southern counties. Pastoral North East counties including; Mandera, Wajir, Isiolo, Tana River, Garissa received high amounts of rainfall ranging between 0mm to 125mm. Pastoral North west counties including Turkana, Marsabit and Samburu recorded trace amounts of rainfall. The South East Marginal Agriculture counties including; Tharaka Nithi, Embu, Kajiado, Meru, Makueni, Kitui counties reported early rainfall onset, received rainfall amounts ranging between 78mm to 200mm. Similar situation was noted with Agro

Pastoral cluster including Kajiado, Laikipia, Narok, Baringo, Nyeri and West Pokot received considerable good rainfall amounts. The Coast Marginal Agriculture counties including Kwale, Kilifi, Taita Taveta and Lamu received highest amounts of rainfall with some parts recording rainfall up to 288mm as shown figure 2.0.

1.1.2 April 2024 rainfall outlook

Rainfall outlook for the month of April 2024 is illustrated in figure 3. Generally, Pastoral North East livelihood zone region (Isiolo, Mandera, Wajir, Tana River and Garissa; South East Marginal Agriculture including; Kitui, Makueni, Embu and Tharaka Nithi. Agro-Pastoral livelihood zones including; Kajiado, Narok, Nyeri, Laikipia; The coastal marginal agriculture counties includes; Taita Taveta, Kilifi, Lamu and Kwale counties; Pastoral North West (Turkana, Samburu and Marsabit) counties are all forecasted to receive above average rainfall.



Figure 3. April 2024 Rainfall forecast

1.2 Vegetation condition

Figure 3 compares the vegetation condition index (VCI) in March 2024 with that of the previous month of February 2024. Generally, the vegetation condition in the month of March showed slight improvement from the month of February.

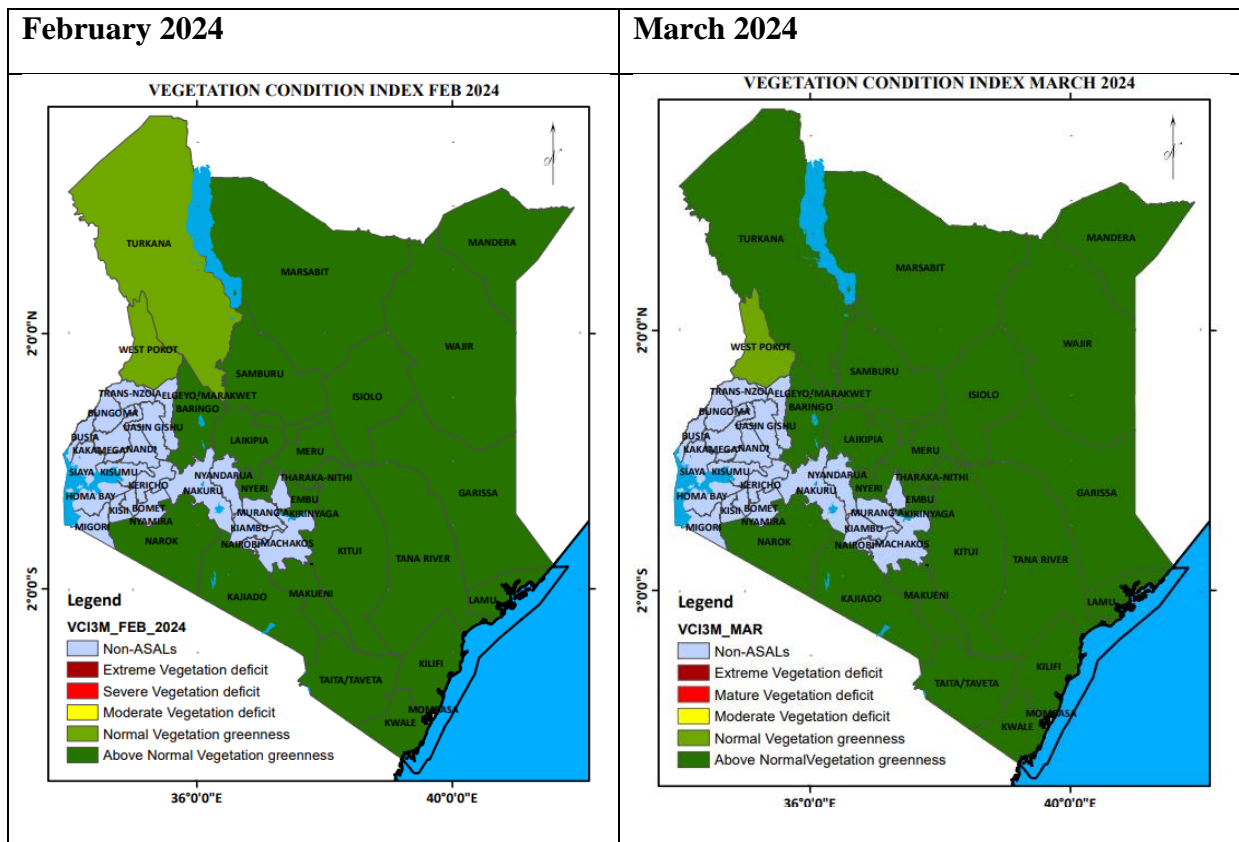


Figure 3: Maps depicting improvement in Vegetation Conditions (VCIs) in March from February 2024

The month of March 2024 indicated improvement in vegetation condition across the Arid and Semi-Arid Counties (ASAL) when compared to the previous month of February 2024. Improvement in vegetation condition is due to the early onset of MAM 2024 long season. None of the counties recorded either extreme or severe or moderate vegetation deficit. Only West Pokot recorded Normal vegetation greenness. The following twenty-two (22) counties including; Samburu, Laikipia, Kajiado, Kitui, Turkana, Tana River, Garissa and Kilifi, Baringo, Narok, Nyeri, Makueni, Embu, Tharaka Nithi, Meru, Isiolo, Marsabit, Wajir, Mandera, Taita Taveta, Lamu and Kwale recorded Above normal vegetation greenness. The current vegetation condition in February 2024 is better when compared to the previous month, February 2024 as shown in (Figure 3). A summary of the vegetation condition across ASAL counties as at end of March 2024 is provided in Figure 1. The situation for each county disaggregated by sub-county is provided in Table 1.

Table 1: Vegetation Condition Index (VCI), March 2024

Category	County	Sub Counties (No)
Extreme	(0)	(0)
Severe vegetation deficit	(0)	(0)
Moderate vegetation deficit	(0)	(0)
Normal vegetation greenness	(1) West Pokot	(6) Baringo (South, Mogotio, Tiaty), Turkana (East) West Pokot (Kacheliba, Sigor)
Above normal Vegetation greenness	(22) Baringo, Embu, Garissa, Isiolo, Kajiado, Kilifi, Kitui, Kwale, Laikipia, Lamu, Makueni, Mandera, Marsabit, Meru, Nyeri, Samburu, Taita Taveta, Tana River, Tharaka Nithi, Wajir, Narok,	(107) Embu (Manyatta, Mbeere North, Mbeere South, Runyenjes), Kajiado (Central, East, North, South, West), Kilifi (Ganze, Kaloleni, North, South, Magarini, Malindi, Rabai), Kitui (Central, East, Rural, South, West, Mwingi Central, Mwingi North, Mwingi West), Kwale (Kinango, Lunga, Matuga, Msambweni), Laikipia (East, North, West), Lamu (East, West), Makueni, (Kaiti, Kibwezi East, Kibwezi West, Kilome, Makueni, Mbooni), Meru (Buuri, Central Imenti, Igembe Central, Igembe North, Igembe South, North Imenti, South Imenti, Tigania East, Tigania West)

Turkana and West Pokot	Nyeri (Kieni, Mathira, Mukurweini, Nyeri Town, Othaya, Tetu), Taita Taveta (Mwatate, Taveta, Voi, Wundanyi), Tharaka Natha (Chuka/Igamba ng'ombe, Maara, Tharaka), West Pokot (Pokot South, Kapenguria), Narok (Emurua Dikirr, Kilgoris, East, North, South, West), Mandera (Lafey, North, Banissa, West, South, East), Marsabit (Laisamis, Moyale, North Horr, Saku), Samburu: (East, North, West), Tana River (Bura, Galole, Garsen), Turkana: (South, Central, North, Loima, West), Wajir (Tarbaj, North, South, West, Eldas, East), Baringo (Central, North, Ravine), Isiolo (North, South), Garissa (Balambala, Fafi, Lagdera, Ijara, Daadab, Township)
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1.3 Livestock production

1.3.1 Pasture and browse condition

Overall, forage conditions ranged from good to fair during the month of March. Pasture conditions were reported as good by 78 percent of the Asal counties, while 22 percent were fair. For browse, 78 percent of counties reported good conditions, with 22 percent reporting fair conditions, attributed to regeneration from early onset of MAM seasonal rainfall. Fair Pasture conditions were observed in counties including; Turkana, Samburu, West Pokot, Narok and Tana River mainly due to invasive species hindering natural regeneration and flooding that hindered grazing.

Table 2.0: Pasture and Browse Condition, March 2024

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

1.3.2 Livestock body condition

Livestock body condition in the Asal Counties was generally stable, with about 70 percent reporting good condition and about 30 percent fair condition for cattle, while goat and sheep showed about 78 percent in good condition and about 22 percent in fair condition. The favorable trend was attributed to abundant pasture and accessible water sources within shorter distances. The observed livestock body condition in February was within the normal to above-normal range for the same period. Overall, livestock in the Asal Counties exhibited good body condition, driven by ample pasture and close water sources, with February conditions falling within the usual or above-normal range for the season.

Table 3.0: Livestock Body Condition, March 2024

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

1.3.3 Milk production

Milk production improved compared to the previous month of February. Majority of Arid counties reported above-average production due to improving Tropical Livestock Units (TLU) occasion by early onset of MAM long rains season. Among the sampled households, Samburu County recorded the lowest average milk production of 0.5 liters among Arid counties, while Tharaka Nithi county reported the lowest average milk production of 0.5 liters among semi-arid counties during the reviewed period. The low milk production is as result of low tropical units among the households as result of previous drought events that led to livestock mortality.

Table 4.0: Milk production, March 2024

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

1.3.4. Livestock diseases

Sheep and goat pox, along with suspected cases of foot and mouth disease, were documented in Garissa, Kajiado (Mile 46 and Ewuaso Kedong), and Narok (Siana, Kilgoris Central, Naroosura, Nkareta ward in Narok West, Transmara West, Narok South, and Narok North Sub Counties). An increase in listeriosis (circling) disease in goats was observed in Waso ward, Samburu County. The reported Rift Valley Fever outbreak cases in Marsabit and Wajir, counties continue to be controlled by stakeholders. In Mandera, instances of camel deaths occurred in Banissa and Lafey, but the cause remained undetermined. Tsetse flies were noted in large stock, particularly in the plains of North Horr in Marsabit, while a rabies outbreak was reported in Tigo, Marsabit County.

1.3.5 Cattle prices

Cattle prices improved slightly throughout the ASAL counties compared to the previous month. The increase in price in these areas was due to increased demand, caused by an influx of cattle into the markets as farmers sought funds for the new academic year and other household expenses. Conversely, in other regions, the stable to improving trend in prices was attributed to the favorable body condition of cattle, allowing pastoralists to command higher prices. Across all counties, prices were higher than usual for the period, driven by factors such as good body condition, active market participation, market scarcity due to hoarding and low volumes, and increased demand for cattle meat.

Table 5.0: Cattle prices, March 2024

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

1.3.6 Goat Prices

Stability in goat prices was observed across ASAL counties, driven by favorable livestock body conditions. However, oversupply to markets, driven by the necessity to raise funds for school fees and household needs, led to a decline in goat prices. In contrast, some counties experienced a positive trend due to high export demand and ample browse availability, contributing to good body conditions. The prevailing market prices for goats across all counties exceeded usual rates for the period, possibly attributed to sustained improvements in goat body conditions following favorable brief rainy seasons, increasing the availability of quality goats.

Table 6.0: Goat prices, March 2024

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

Lamu Makueni Garissa Wajir Narok Laikipia Marsabit Samburu Taita Taveta Turkana Meru Mandera Isiolo Kilifi Embu West Pokot Tana River Nyeri Kitui Tharaka Nithi Kwale Baringo Kajiado			Embu Kajiado Kilifi Meru Taita Taveta Garissa Isiolo Mandera Samburu Wajir	Laikipia Tharaka Nithi Turkana Marsabit	Kwale Lamu Makueni Narok Nyeri West Pokot Baringo Tana River
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1.4 Crop Production

Agricultural activities, encompassing the cultivation of food and horticultural crops, are predominantly concentrated in the Agro-pastoral (AGP), Coastal Marginal Agriculture (CMA), and South East Marginal Agriculture clusters (SEMA). These regions serve as focal points for crop cultivation in the arid and semi-arid lands (ASAL). Nevertheless, it is noteworthy that even within other clusters, a significant number of households engage in crop production along the riverine areas of rivers such as Tana, Daua, Turkwel, and others. This diversification of agricultural practices highlights the adaptability and resourcefulness of communities across ASAL counties. The following summary table provides an overview of the agricultural landscape in these regions.

Table 7.0: Current status of crop production

Cluster	Counties	Current state of crop production
SEMA	Kitui	The major crops being planted in the season included millet, cowpeas, green grams, sorghum, and maize in Marginal Mixed Farming livelihood zone and maize, beans, pigeon peas, cow peas and green grams in Mixed Farming livelihood zone

		Land preparation and planting for the season was on-going across the livelihood zones and this situation is normal at this time of the year Crops germination was expected following the onset of the long rains. However, farmers who did early planting/ off season planting the crops have germinated
	Makueni	The main crops planted during the season were maize, green grams, pigeon peas, beans, and cowpeas. Land preparation and planting for the season was on-going across the livelihood zones
	Meru	Land preparation for the March -April – May (MAM) rains has begun in most parts of the livelihood with above-average rains expected across the county Farmers across the livelihood zones concluded harvesting of crops in late February to early March with the harvest being near normal in most parts of the Mixed Farming and Marginal Farming areas of Tigania East and West However, below average maize crop was observed in the Agropastoral areas of Igembe North and Central. This was as a result of water logging from the enhanced rains leading to stunted growth of maize in those areas
Agropastoral	Baringo	Most of the farmers have prepared their farms in readiness for planting once the long rains start, In the Irrigated zone, tomato harvesting was going on well.

1.4.1 Maize prices

Maize prices remained stable during ongoing harvesting, expected to decrease following the post-harvest. March prices exceeded the long-term average in counties, attributed to minimal production from past failed rainfall seasons, elevated fuel costs affecting transportation, and heightened demand. Concluded harvests are stabilizing maize prices, anticipated to decline further as witnessed by below average prices in march associated with harvest that farmers got.

Table 8.0: Maize prices, March 2024

Current status			Trend		
Above LTA	At/close to LTA	Below LTA	Improving	Stable	Worsening
Makueni Garissa Lamu Wajir Mandera Marsabit	Nyeri	Embu Kitui Makueni Taita Taveta Laikipia	Embu Kwale Laikipia Kitui Makueni Meru	Garissa Kilifi Taita Taveta Marsabit Turkana Mandera	Kajiado Lamu Narok Nyeri Wajir

Samburu Turkana Kajiado Kilifi West Pokot Tana River Nyeri Kwale Baringo		Meru Tharaka Nithi Isiolo	Tharaka Nithi Isiolo Baringo West Pokot Samburu Tana River		
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1.5 WATER ACCESS

1.5.1 Access to water for households

The distance to household water sources slightly increased but within the normal ranges, with Mandera reporting the longest trekking distance (8.8km) and Isiolo the shortest (2.2Km) among the Arid counties. Kitui recorded the longest distance (5.6km), while Narok reported the shortest (1.7km) among Semi-arid counties. The generally lower-than-normal trekking distances were attributed to water facility recharge during the October to December short rains and early onset of MAM 2024 long rains.

Table 9.0: Distance from Households to Main Water Sources, March 2024

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

a	Samburu	Embu	Kajiado	Kitui	Embu
	Kajiado	Kilifi	Kilifi	Taita	Kwale
	Tana	Kitui	Narok	Taveta	Laikipia
	River	Laikipia	Tharaka	Isiolo	Lamu
	Garissa	Lamu	Nithi	Turkana	Makueni
	Kwale	Makueni	West Pokot		Meru
	Tharaka	Meru			Nyeri
	Nithi	Nyeri			Baringo
	West	Baringo			Garissa
	Pokot	Isiolo			Mandera
	Narok	Mandera			Marsabit
	Taita	Marsabit			Samburu
	Tavet	Turkana			Tana River
		Wajir			Wajir

1.5.2 Access to water for livestock

Livestock trekking distances from grazing areas to water sources remained stable across ASAL counties, showing a positive trend due to enhanced short rains. In arid counties, Turkana reported the longest round-trip distance at 11.6kilometers whereas Isiolo County having the shortest at 3.8 kilometers. In semi-arid counties, trekking distances ranged from 2.2 kilometers to 5.6 kilometers, with Kitui and Lamu reporting the longest and Kilifi and Narok the shortest distances. The improved livestock access to water sources is attributed to the successful performance of the short rains in 2023. The stability and slight increase in distances indicate positive conditions for livestock welfare in ASAL counties.

Table 10.0: Distance from Livestock Grazing area to Main Water Sources, March 2024

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

	Makueni Embu Garissa Nyeri				Wajir
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1.6 Terms of trade

Terms of trade were stable and favorable across ASAL counties. In arid counties, Garissa reported the lowest terms of trade among Arid while in In semi-arid regions, West Pokot recorded the lowest terms of trade. Comparatively, the terms of trade were favorable when measured against the long-term average. Marsabit county reported the highest terms of trade in Arid Counties while Meru recorded the highest among the semi-arid counties . The positive shift in terms of trade is attributed to the concluded harvesting activities, which are contributing to price stabilization in the ASAL counties.

Table 11.0: Terms of Trade, March 2024

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

1.7. Health and nutrition

Child malnutrition conditions improved in Kajiado, Kitui, Lamu, Makueni, Narok, Nyeri, West Pokot, Baringo and Garissa compared to the previous month. This positive trend is a result of ongoing nutrition interventions through health outreaches and improved food consumption, particularly from enhanced access to nutritious items such as fresh milk, pulses, and seasonal vegetables. Kilifi, Kwale, Lamu, Makueni, West Pokot, Baringo, Garissa, Marsabit, Tana River, Turkana and Wajir counties are on alert status based on MUAC rates, signaling potential nutrition concerns.

Table 12.0: Children at risk of malnutrition (MUAC), March 2024

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

1.8. Emerging issues

Heavy rains have been experienced across ASAL counties during the month of April that led to destruction of local roads in Marsabit(Dirib-Gombo, Central (KCB)–Badassa, Parkishon).Turkana has also received heavy rains that resulted to displacement of approximately 250 households with Tana river also experiencing river flooding.Other counties like Samburu have received rains that are causing swollen rivers affecting movement of goods.NDMA will closely monitor instances of flooding since rainfall onset has been realised across ASAL counties.

2.0 Drought phase classification

Based on the range of early warning indicators monitored through the drought early warning system, all the 23 ASAL counties are at the ‘Normal’ phase with a stable to improving trend, while few counties are at Worsening Trend as shown in the table 13.

Table 13.0: Drought phase classification, March 2024

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

Alarm			
Emergency			
Recovery			

3.0 Recommendations

Table 14: Priority Recommended Interventions

No.	Sector	Intervention
1.	Coordination	<ul style="list-style-type: none"> Enhance coordination at both national and county levels to monitor the performance of the long rains and management of the possible impacts. Stakeholders to be sensitized on livelihood support actions to prepare communities for improved conditions during MAM 2024.
2.	Food and safety nets	<ul style="list-style-type: none"> Provision of regular food assistance and unconditional cash transfers targeting the vulnerable groups particularly in flood prone areas. Implementation of deliberate actions to create and sustain IGAs for vulnerable households to set them on a path to resilience.
3.	Water sector	<ul style="list-style-type: none"> Rehabilitation and maintenance of water facilities. Support for point of use water treatment for households faced with water insecurity. Support for enhanced water harvesting and storage.
4.	Livestock sector	<ul style="list-style-type: none"> Strengthening disease surveillance and control to facilitate migrations and access to markets. Promote routine supportive livestock health initiatives including vaccinations and control of (endo and ecto) parasites Support restocking programmes aimed at herd redistributions. Promote fodder production alongside crop production during MAM 2024.
5.	Health and nutrition sector	<ul style="list-style-type: none"> Support health and nutrition surveillance and interventions. Promote health seeking behaviour through community health strategy. Promote `baby-friendly initiatives through mother support groups and community health strategy.
6.	Peace and security sector	<ul style="list-style-type: none"> Support intra/inter-community peace dialogues and resource-use agreements; Coordination of peace and security activities in conflict prone counties. Strengthening community readiness systems for peaceful access of resources.

7.	Education sector	<ul style="list-style-type: none"> • Support initiatives to enhance education enrolment, transition and attendance. • Enhance hygiene promotion in learning institutions; and • Promote of school feeding programmes in schools.
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Table 15: Vegetation Condition Index (VCI-3 month) as at 31st March 2024

ADMINISTRATIVE UNIT		VEGETATION GREENNESS		DROUGHT CATEGORIES/REMARKS		
COUNTY	Sub County	VCI-3 month as at 25 th Feb 2024	VCI-3 month as at 31 st Mar 2024	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	57.62	52.17	The county recorded above normal vegetation greenness in March.		
	Central	81.21	76.35			
	North	59.13	57.05			
	South	55.81	45.15			
	Ravine	78.59	79			
	Mogotio	48.13	41.61			
	Tiaty	52.31	46.57			
MANDERA	County	91	87.45	The county remained stable as compared to previous month of February at above normal vegetation greenness.		
	Lafey	97.39	89.3			
	North	95.68	85.68			

	Banissa	80.56	65.85	
	West	82.29	81.42	
	South	96.19	107.51	
	East	87.71	81	
TURKANA	County	49.86	57.27	The county recorded above normal vegetation greenness during the month under review.
	East	35.79	37.39	
	South	51.48	51.16	
	Loima	66.32	70.39	
	Central	47.92	55.7	
	West	60.06	70.85	
	North	41.96	54.73	
MARSABIT	County	73.86	73.77	The county recorded above normal vegetation greenness in March which was stable when compared to previous month of February.
	Laisamis	86.52	89.18	
	Moyale	83.5	77.46	
	North Horr	62.47	62.34	
	Saku	107.01	106.88	
WAJIR	County	86.25	86.77	The county maintained at above normal vegetation greenness in March, as compared to the previous month of February.
	Tarbaj	85.4	90.03	
	North	95.48	96.31	
	South	77.22	76.1	
	West	102.32	98.17	
	Eldas	83.21	89.42	
	East	88.99	89.64	
SAMBURU	County	74.2	74.55	The county remained stable at above normal vegetation greenness during the month under review.
	East	78.28	76.88	
	North	74.66	78.08	
	West	55.68	52.52	
GARISSA	County	81.91	79.6	The county remained the same in vegetation greenness at above normal vegetation greenness during the month of March.
	Balambala	83.15	76.42	

	Township	87.65	81.69	
	Ijara	84.49	91.79	
	Fafi	82.25	78.76	
	Lagdera	89.91	84.58	
	Dadaab	70.04	65.29	
ISIOLO	County	94.78	92.63	The county recorded stability in above vegetation greenness in March, which was stable when compared to last month.
	North	99.42	98.9	
	South	87.7	83.05	
TANA RIVER	County	75	68.79	The county recorded above normal vegetation greenness in the month of March.
	Bura	75.22	71.87	
	Galole	67.42	59.43	
	Garsen	79.55	72.03	
KAJIADO	County	90.66	88.12	Kajiado county recorded stability in vegetation greenness at above normal vegetation greenness in the month of March.
	Central	90.95	89.13	
	East	93.38	87.46	
	North	84.22	87.1	
	South	93.65	82.43	
	West	87.05	92.48	
LAIKIPIA	County	74.32	61.36	The county recorded stability in vegetation greenness at above normal vegetation greenness during the month under review.
	East	79.28	69.29	
	North	76.61	64.21	
	West	67.63	52.2	
THARAKA NITHI	County	70.05	67.27	Th county recorded above normal vegetation greenness in the month under review.
	Chuka	80.11	81.19	
	Maara	81.17	83.13	
	Tharaka	62.71	56.95	
WEST POKOT	County	48.21	48.86	The county recorded stability in vegetation greenness in normal vegetation greenness during the month of March.
	Kacheliba	41.34	39.98	
	Kapenguria	48.8	50.15	

	Pokot south	66.18	72.95	
	Sigor	49.58	49.7	
EMBU	County	77.49	76.54	The county recorded above normal vegetation greenness during the month under review.
	Manyatta	77.15	84.41	
	Mbeere north	76.74	74.43	
	Mbeere south	76.9	72.07	
	Runyenjes	81.86	89.26	
KITUI	County	71.98	64.36	The county recorded a stability in vegetation greenness at above normal vegetation greenness during the month of March.
	Kitui central	78.92	81.69	
	Kitui east	71.69	61.61	
	Kitui rural	82	78.1	
	Kitui south	76.14	67.05	
	Kitui west	74.99	73.54	
	Mwingi central	65.81	56.62	
	Mwingi north	62.59	57.42	
	Mwingi west	78.26	76.54	
MAKUENI	County	86.02	85.85	The county recorded above normal vegetation greenness in March, which was stable when compared to previous month of February.
	Kaiti	90.79	93.96	
	Kibwezi east	88.05	88.49	
	Kibwezi west	81.91	79.99	
	Kilome	92.75	90.26	
	Makueni	82.82	83.15	
	Mbooni	87.47	89.33	
MERU	County	78.98	82.12	The county recorded above normal vegetation greenness across the sub-counties during the month of March.
	Buuri	81.86	85.6	
	Central Imenti	76.15	79.26	
	Igembe central	80.93	79.63	
	Igembe north	86.89	90.98	
	Igembe south	74.21	70.63	

	North Imenti	64.8	78.45	
	South Imenti	84.74	88.87	
	Tigania east	71.53	74.48	
	Tigania west	71.32	83.75	
NYERI	County	74.92	81.67	The county recorded above normal vegetation greenness in March.
	Kieni	75.28	78.74	
	Mathira	63.89	76.7	
	Mukurweini	84.75	89.47	
	Nyeri town	84.04	91.9	
	Othaya	76.64	89.2	
	Tetu	75.87	86.95	
KILIFI	County	76.76	70.53	The county remained at above normal vegetation greenness in the month of March.
	Ganze	76.97	66.22	
	Kaloleni	79.95	68.79	
	Kilifi north	73.64	71.22	
	Kilifi south	69.43	60.73	
	Magarini	77.53	72.75	
	Malindi	71.29	72.15	
	Rabai	78.57	76.41	
KWALE	County	85.42	83.72	The vegetation condition index recorded was above normal vegetation greenness in March which was stable when compared to last month.
	Kinango	85.72	83.3	
	Lunga	86.49	85.51	
	Matuga	83.82	84.35	
	Msambweni	80.81	78.37	
LAMU	County	90.68	101.23	The county and all its sub counties recorded stability in vegetation condition at above normal vegetation greenness condition during the month of March.
	Lamu east	91.21	107.48	
	Lamu west	90.37	97.61	
TAITA TAVETA	County	92.25	85.87	The county remained stable at above normal vegetation
	Mwatate	95.33	90.62	

	Taveta	104.3	98.9	greenness during the month of March.
	Voi	85.41	77.57	
	Wundanyi	102.65	102.79	
NAROK	County	84.75	87.95	The County recorded above normal vegetation greenness in the month of March which was stable when compared to the last month of February.
	Emurua Dikirr	94.47	95.74	
	Kilgoris	81.28	82.7	
	Narok east	89.75	88.33	
	Narok north	71.41	75.04	
	Narok south	87.05	92.41	
	Narok west	88.37	92.2	

Table 14.0: 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
Utilization	MUAC (Mid-Upper Arm Circumference) Coping strategies Food consumption score	Nutrition Coping Strategies

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

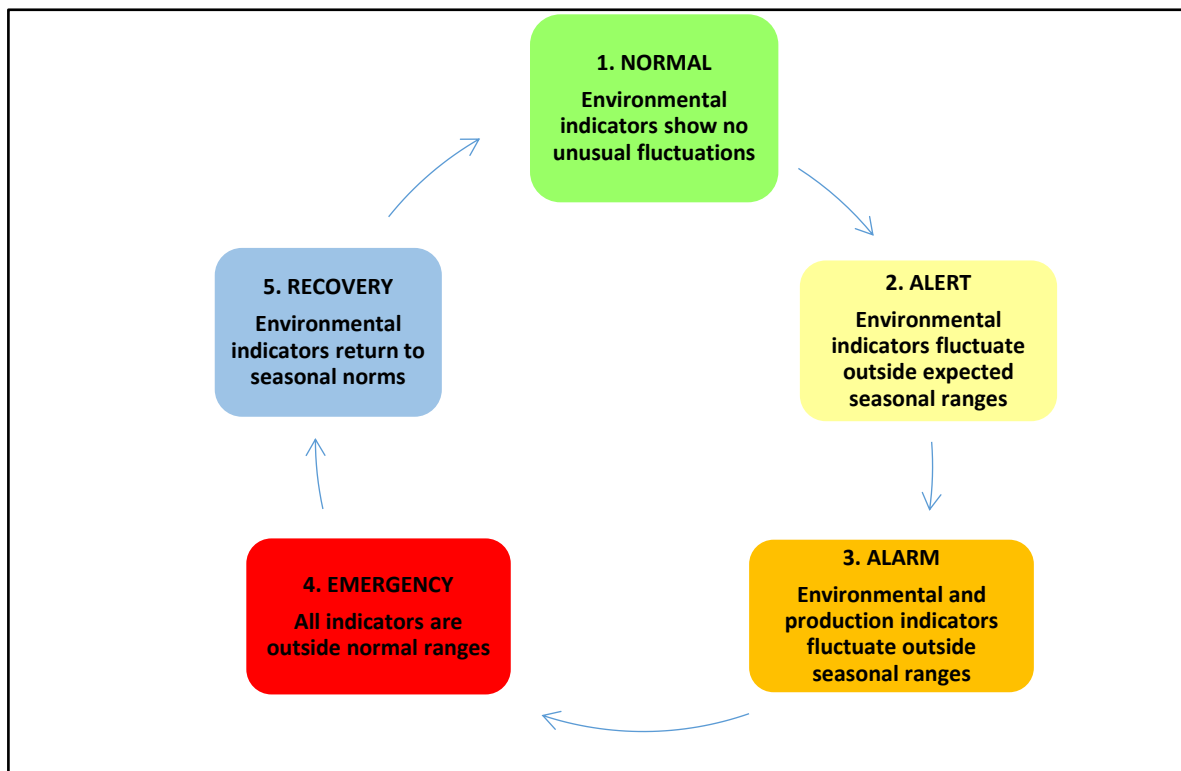


Figure 4.0: Drought Phase Classification