NATIONAL DROUGHT MANAGEMENT AUTHORITY

National Drought Early Warning Bulletin

January 2024

1.0 Drought Situation Overview

The range of environmental, production, access and utilisation indicators monitored by the national drought early warning system fell within their usual ranges following the good performance of the 2023 short rains season. Consequently, All the 23 counties classified as Arid and Semi-Arid lands (ASALs) were categorised under the 'Normal' phase in January. However, the emergence of other risks associated with the enhanced rainfall such as Rift Valley Fever (RVF) reported in Marsabit and Wajir counties continued to undermine full drought and food security recovery.

The functioning of markets, flow of food and other commodities almost stabilised across the ASAL counties during the month under review. However, upsurge of livestock diseases such as RVF, Foot and Mouth Disease, among others, may restrict livestock movements to these markets, thus disrupting functionality. The ongoing multi-sectoral assessment of the impact of the 2023 short rains on food and nutrition security will provide a clearer situation update, including the number of people requiring humanitarian assistance.

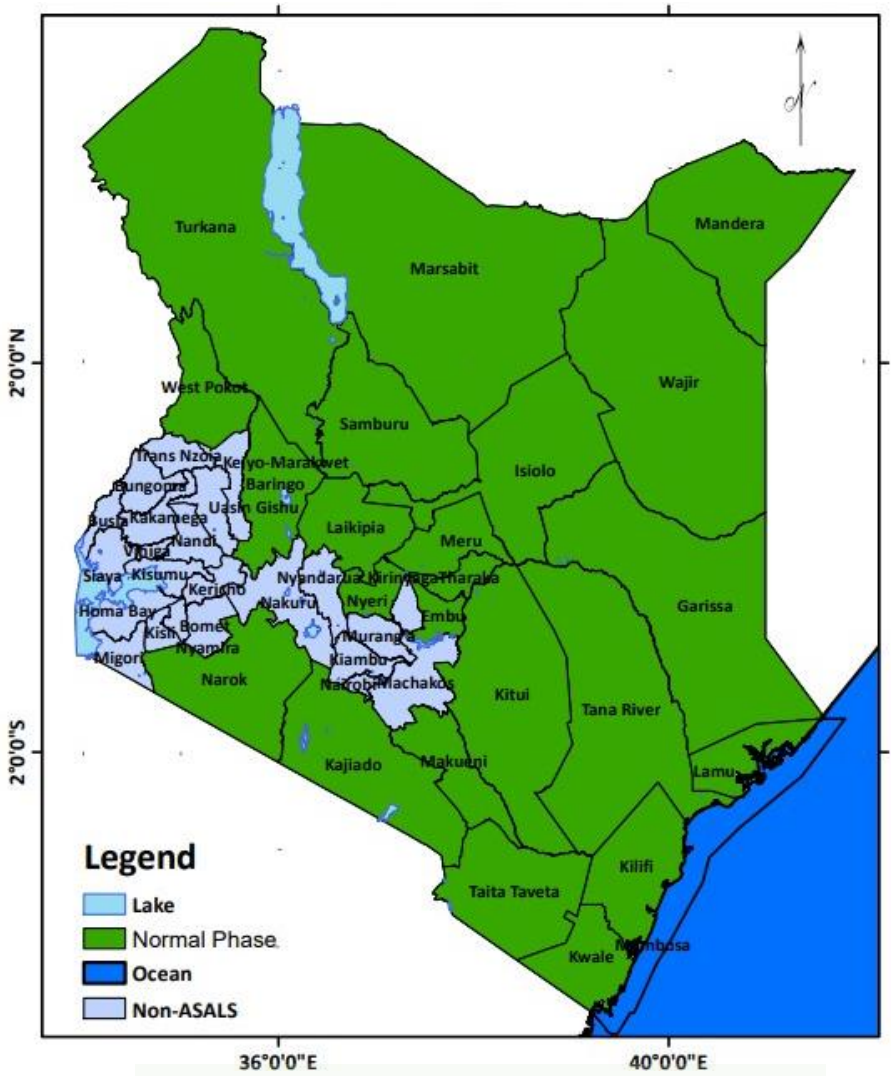

Figure 1: *Drought phase classification in January 2024.*

1.1 Drought Observed Indicators

1.1.1 January 2024 Rainfall Performance

Sunny and dry weather conditions prevailed over most parts of the northern sector except a few areas over Isiolo, Marsabit, Turkana, Kitui, Tana river, Taita taveta, Kilifi, Lamu and West pokot where rainfall was experienced for a few days.

The southern sector of the country experienced rainfall that was near to above average except over the Coastal region and parts of the Southeastern lowlands where below average rainfall was recorded.

The month was characterized by isolated storms over the Highlands East of the Rift Valley, the Southeastern lowlands, the Highlands West of the Rift Valley, South Rift Valley, the South Coast (Kwale) and Northeast (Isiolo).

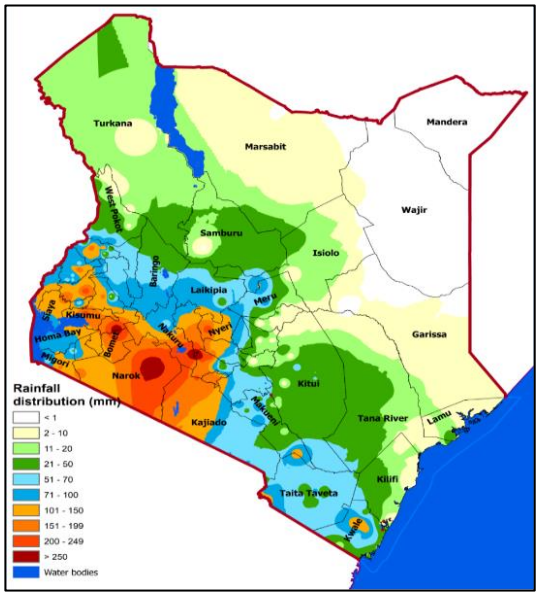

Figure 2: *January 2024 Rainfall Performance.*

1.1.2 Rainfall Outlook for February 2024

The rainfall outlook for February is as shown in Figure 3. The forecast indicates that the Turkana, Marsabit, Mandera, Wajir, Isiolo and Garissa counties will experience generally sunny and dry conditions during the month.

Temperatures are also likely to be above average over several parts of the country, except parts of the southeastern lowlands, where normal temperatures are expected.

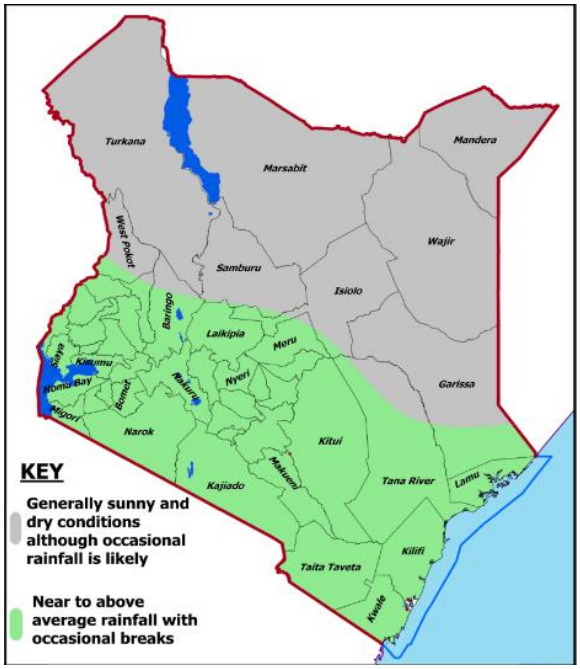

Figure 3: *February Rainfall Forecast.*

1.2 Vegetation Condition

Vegetation Condition remains normal across ASAL counties, with dense canopies evident over most areas due to the cumulative rainfall across the October to December season. Consequently, all the counties presented normal vegetation greenness, thus stable vegetation condition as shown in Figure 4.

December 2023 **January 2024**

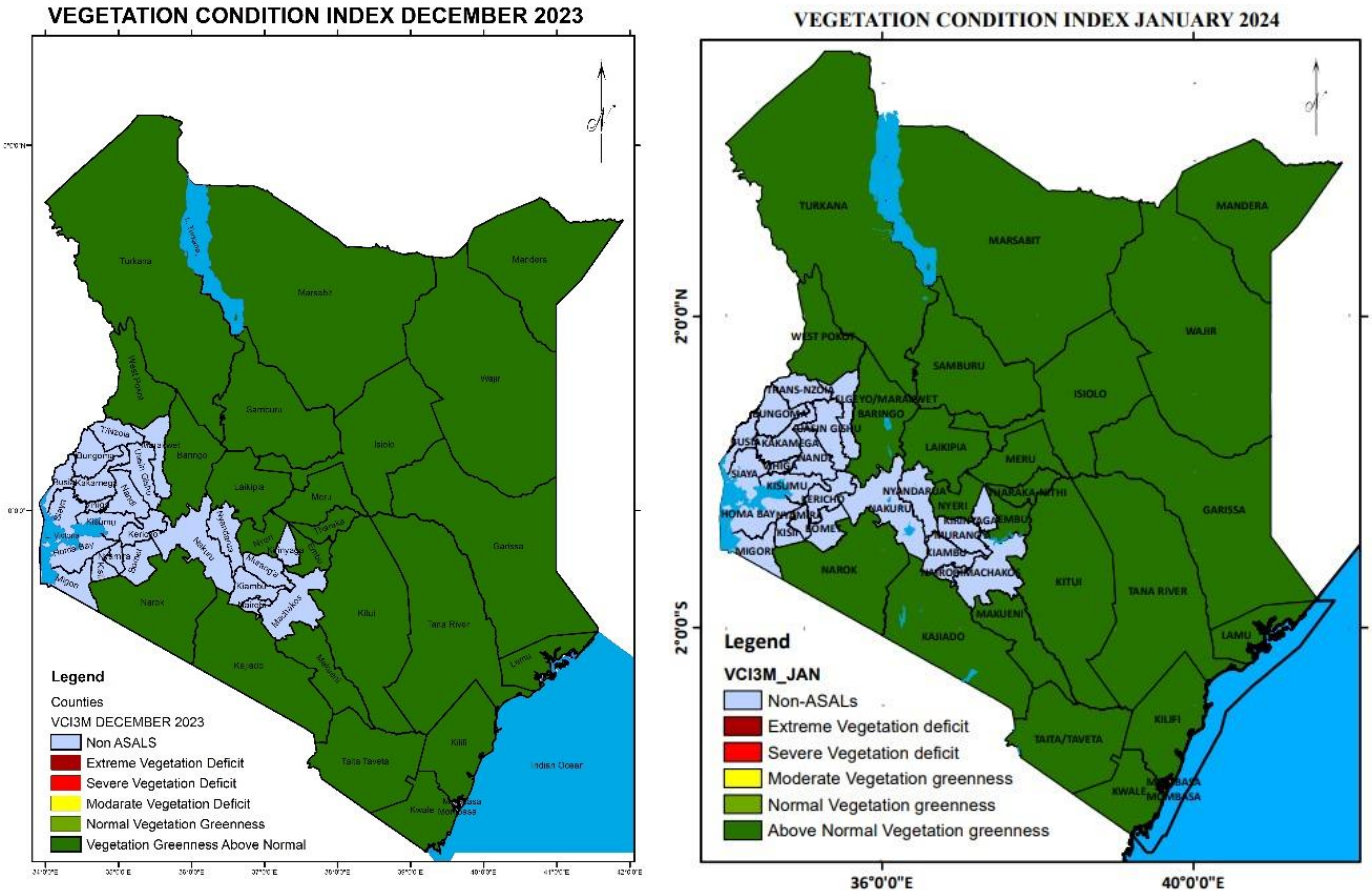

Figure 4: *Comparison of vegetation condition in December 2023 and January 2024.*

Table 1 provides a summary of the vegetation condition across ASAL counties (disaggregated by sub-county) as at the end of January 2024.

Table 1: Vegetation Condition Index (VCI)

Category	County	Sub Counties (No)
Extreme	(0)	(0)
Severe Vegetation Deficit	(0)	(0)
Moderate Vegetation Deficit	(0)	(0)
Normal Vegetation Greenness	(0)	(6) Baringo (Mogotio) Turkana:(Turkana East,Central and North) Garissa (Balambala, Township)
Above-normal Vegetation Greenness	(20) Embu, Kajiado, Kilifi, Kitui, Kwale, Laikipia, Lamu, Makueni, Meru, Nyeri, Taita Taveta, Tharaka Nithi, West Pokot, Narok, Mandera, Marsabit, Samburu,Tana River, Turkana, Wajir	(109) Embu: (Manyatta Mbeere North Mbeere South, Runyenjes) Kajiado: (Kajiado Central, Kajiado East, Kajiado North, Kajiado South, Kajiado West) Kilifi: (Ganze,Kaloleni,Kilifi North,Kilifi South, Magarini, Malindi, Rabai) Kitui: (Kitui Central, Kitui East, Kitui Rural, Kitui South, Kitui West, Mwingi Central, Mwingi North, Mwingi West) Kwale: (Kinango, Lunga, Matuga, Msambweni) Laikipia: (Laikipia East, Laikipia North, Laikipia West) Lamu: (Lamu East,Lamu 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) Nyeri:(Kieni, Mathira, Mukurweini, NyeriTown, Othaya, Tetu) Taita Taveta: (Mwatate, Taveta, Voi, Wundanyi), Tharaka Natha: (Chuka/Igambang'ombe, Maara, Tharaka). West Pokot: (Kacheliba, Kapenguria, Pokot South, Sigor), Narok: (Emurua Dikirr, Kilgoris, Narok East, Narok North, Narok South, Narok West). Mandera:(Lafey, Mandera North, Banissa, Mandera West, Mandera South, Mandera East). Marsabit: (Laisamis, Moyale, North Horr, Saku). Samburu:(Samburu East, Samburu North, Samburu West) Tana River: (Bura, Galole, Garsen). Turkana:(Turkana South, Loima,T urkana West). Wajir:(Tarbaj, Wajir North, Wajir South, Wajir West, Eldas, Wajir East)

1.3 Livestock Production

1.3.1 Pasture and browse condition

The condition of forage was generally good to fair over the reference period. Approximately 78% of the ASAL counties reported good condition of pasture and 22% reported fair while 91% good browse condition and 9% reported fair (Table 2) due to the regeneration that was driven by the rainfall received during the previous month. The observed fair condition could be attributed to presence of invasive species such as *Cossus Rotundia (Raraiti)* that smothered the natural regeneration of the palatable species in regions such as Samburu and parts of Marsabit, heat effect in January and heavy flooding in grazing lands.

Table 2: Pasture and browse condition

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

1.3.2 Livestock body condition

Livestock body condition for all species was generally good across ASAL counties, with 58% reporting good body condition and 22% fair body condition for cattle. 96% reported good condition for goat and sheep while 4% reported fair. The positive trend was due to availability of abundant pasture and access to water within shorter distances. The observed livestock body across January was normal to above normal compared to the long term mean.

Table 3: Livestock body condition

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

1.3.3 Milk production

Milk production remained stable compared to the previous month, with most of the arid counties reporting below milk production compared to long term average. This is attributed to low tropical units following livestock mortality experienced during the previous failed seasons. During the period under review, Samburu reported the lowest average milk production at 0.4 litres from the sampled households in Arid counties, while Embu reported the lowest average milk production at 0.6 litres among semi-arid counties.

Table 4: Milk production

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

1.3.4 Livestock diseases

Outbreak of sheep and goat pox and suspected foot and mouth disease was reported in Garissa, Kajiado (Mile 46 and Ewuaso Kendang) and Narok (Siana, Kilgoris Central, Naroosura and Nkareta Wards in Narok West, Transmara West, Narok South and Narok North Sub-Counties respectively). Upsurge of listeriosis (circling) disease in goats was reported in Waso Ward, Samburu County while outbreak of Rift Valley Fever was reported in Marsabit and Wajir with 52 of the 275 samples tested returning a positive for RVF in Wajir. In Mandera, cases of camel deaths were reported in Banissa and Lafey but the cause of death was yet to be ascertained. For large stock, cases of tsetse flies have been noted, especially in the plains of North Horr in Marsabit while rabies outbreak was also reported in Tigo, Marsabit County.

1.3.5 Cattle prices

Cattle prices remained stable across ASAL counties compared to the previous month. The observed low prices were occasioned by the low demand due to increased supply of the species to the markets as farmers sought to raise funds to meet beginning of year academic needs and other household expenses.

Notably, the stable-to-improving trend in the other areas was driven by good cattle body condition that enabled pastoralists to earn more. Notably, the recorded prices across all counties were above the corresponding usual prices for the period, with good body condition, vibrant market participation, scarcity in markets due to hoarding and low volumes, and high demand for cattle meat being cited as factors sustaining the above normal prices.

Table 5: Cattle prices

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

1.3.6 Goat Prices

Goat prices remained stable across ASAL counties as result of good livestock body condition. Oversupply in markets caused by the need to raise school fees and to meet household needs had negative effect on prices. The favorable trend in these countries was impacted by high export demand and browse availability. The prevalent market price of goats across all counties was above usual rates for the period, which could be attributed to persistent improvement in the body condition of goat following good rains.

Table 6: Goat prices

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

1.4 Crop Production

Agricultural activities entailing food and horticultural crops production are usually carried out in the Agro-pastoral, Coastal Marginal Agriculture, South East Marginal Agriculture clusters. However, within the other clusters, a notable proportion of households practice crop production along riverine areas of River Tana, Daua, Turkwel, among others. Table 7 illustrates the crop production situation across the ASAL counties.

Table 7: Current status of crop production

Cluster	Counties	Current state of crop production
South East Marginal Agriculture	**Kitui**	Majority of crops were at harvesting stage and in good-fair condition. However, farmers are anticipating below average harvests due to withering, crop pests and flash floods. In addition to rain-fed cropping, farmers along main rivers (Athi, Tana, Tiva and Thua) had horticultural crops under irrigation at various stages of development.
	Makueni	Farmers along the flooded rivers and upper zones of the county were counting crop losses due to water logging. The most affected areas were Kawese village in Kasikeu ward of Kilome Sub-county and Kako/Waia Ward in Mbooni Sub-county where maize crop had stunted growth due to sandy soil leaching nutrients, affecting approximately 132 Ha and 272 families.
	Meru	Maize crop is good in most parts of the county and currently at the grain filling stage/ nearing maturity. Near normal harvest is expected in the last week of February in most areas, except the Rainfed Cropping Zones of Tigania East and parts of the Agropastoral Zone such as Lothera, Kandebene and Nkiluthu in Tigania West, Ithata and Kamweline in Igembe North, and lower parts of Igembe Central where beans crop was destroyed by flooding. The ongoing harvests of beans are gradually improving household food availability while reducing market reliance, while agricultural labour opportunities are improving household access to income and purchasing power.
Agropastoral	**Baringo**	Infestation of Fall Armyworms was observed in Baringo Central and Eldama Ravine sub-counties, leading to reduced yield.

1.4.1 Maize prices

Maize prices remained stable as harvesting was ongoing and are expected to reduce after harvesting. Notably, the prevailing prices over January were above the respective long-term average for Baringo, Garissa, Isiolo, Mandera, Marsabit, Samburu and Tana River, Tana River Turkana, Wajir, Embu, Kilifi, Kitui, Laikipia, Lamu, Makueni, West Pokot, Tharaka Nithi, Taita Taveta, Nyeri and Narok ,which could be attributed to minimal production during the earlier successive failed rainfall seasons, high transport costs due to high fuel prices and increased demand for the commodity.

Table 8: Maize prices

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

1.5 Water Access

1.5.1 Access to water for households

Distance to water source for household remained stable compared to the previous month. Mandera recorded the longest trekking distance for arid counties at 8.6Km and Samburu the shortest at 5.6km return distance. Tharaka Nithi recorded the longest distance at 4.3 Km for semi-arid counties while Nyeri recording the lowest at 1.2 Km among semi-arid counties. Lower than normal trekking distances were boosted by recharge of water facilities over the October to December short rains period, coupled with erratic showers experienced in January, albeit in select areas.

Table 9: Distance from households to main water sources

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

1.5.2 Access to water for livestock

The trekking distance covered by livestock from grazing areas to water points remained stable across ASAL counties. The positive trend was attributable to the enhanced short rains. Consequently, among the arid counties, the distance averaged 7.3 Kms compared to 6.7Kms recorded in December 2023. The longest return trekking distance of 10.8 Kms was reported in Turkana and Mandera, while the shortest distance was recorded in Tana River County at 3.2 Kms. On the other hand, the distance ranged between 1.8 Kms and 4.3 Kms in the semi-arid counties, with the longest distance recorded in Kitui while the shortest was reported in Kilifi.

Table 10: Distance from livestock grazing area to main water sources

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

1.6 Terms of Trade

Stability in the terms of trade was noted across the counties. Among the arid counties, the lowest terms of trade of 40 and 42 was reported in Garissa and Turkana respectively, while Nyeri recorded the lowest of 61 among semi-arid counties. Compared to the long-term average, the terms of trade were favorable. Marsabit County reported the highest terms of trade at 91.8 while Tharaka Nithi returned the highest of 115 among the semi-arid counties. The improved terms of trade are as result of ongoing harvests, which are stablising prices.

Table 11: Terms of Trade

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

1.7 Health and Nutrition

The nutrition situation was on an improving trend in January compared to the previous month in Isiolo, Mandera, Embu, Kitui, Laikipia, Lamu, Meru, Nyeri, Taita Taveta and Marsabit. This was attributed to ongoing nutrition interventions delivered through health outreaches and better food consumption following improved access to nutritious food commodities in season such as fresh milk, pulses and vegetables. However, based on Middle-Upper-Arm-Circumference (MUAC) rates, Garissa, Tana River, Kitui, Kwale and Makueni remained on Alert.

The reported malnutrition rates remained below the seasonal ranges in approximately 60% of the ASAL counties but outside the usual ranges in roughly 26% of the counties. The negative situation could be attributed to increase in cases of epidemics such as cholera, diarrhea, among other ailments, throughout the short rains season.

Table 12: Children at risk of malnutrition (based MUAC measurements)

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

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 the trend in a few counties is Worsening Trend as shown in the Table 13.

Table 13: Drought phase classification

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

3.0 Recommendations

Table 14: Recommended Priority Interventions

No.	Sector	Intervention
1.	**Coordination**	• Enhance coordination at both national and county levels to monitor any effects of the low precipitation situation given the likely dry conditions in February and March 2024 (before onset of March-May season). • Sensitisation of stakeholders on livelihood support actions to prepare communities for improved conditions during upcoming long rains season.
2.	**Food and safety nets**	• Provision of regular food assistance and unconditional cash transfers targeting the vulnerable groups. • Implementation of deliberate actions to create and sustain income generating activities for vulnerable households to set them on a path to resilience.
3.	**Water sector**	• Rehabilitation and maintenance of water facilities damaged by *El Nino* rains. • Support for point of use water treatment for households faced with water insecurity. • Support for enhanced water harvesting and storage.
4.	**Livestock sector**	• Strengthen disease surveillance and control to facilitate migration 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 redistribution.

		• Promote pasture seed collection in readiness for reseeding during MAM 2024.
5.	**Health and nutrition sector**	• 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**	• Support intra/inter-community peace dialogues and resource-use agreements; Coordination of peace and security activities in conflict prone counties. • Strengthen community readiness systems for peaceful access of resources.
7.	**Education sector**	• Support initiatives to enhance education enrolment, transition and attendance. • Enhance hygiene promotion in learning institutions; and • Promote of school feeding programmes in schools.

Annex 1: Vegetation Condition Index (VCI-3 month) as at 31st January 2024

County	Sub County	VCI-3 month as at 3lst Dec 2023	VCI-3 month as at 31st Jan 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	62.35	58.21	Above normal vegetation greeness remained the same across all sub-counties except Mogotio that recorded normal vegetation greenness.		
	Central	64.2	71.16			
	North	67.05	58.5			
	South	65.01	59.5			
	Ravine	52.93	63.94			
	Mogotio	47.29	48.02			
	Tiaty	65.49	57.25			
Mandera	County	84.47	89.84	Similar to the previous month, vegetation greenness remained above normal across all the Sub counties as compared to the previous month.		
	Lafey	86.16	93.9			
	North	87.08	95.2			
	Banissa	80.6	84.19			
	West	82.27	85.67			
	South	87.9	90.68			

	East	72.11	80.99	
Turkana	County	60.9	54.66	Above normal vegetation greenness recorded in January 2024,Except for Turkana East, North and central that showed Normal vegetation greenness as opposed to previous months.
	East	40.12	35.03	
	South	54.15	56.18	
	Loima	77.64	73.21	
	Central	50.47	45.92	
	West	80.4	68.43	
	North	55.57	48.29	
Marsabit	County	83.7	82.75	Similar to the previous month, vegetation greenness remained above normal across all the Sub counties
	Laisamis	84.16	92.78	
	Moyale	77.37	90.77	
	North Horr	84.34	73.78	
	Saku	96.65	106.34	
Wajir	County	62.77	80.25	Above normal vegetation greenness was recorded across the sub-counties which is similar to the previous months.
	Tarbaj	76.59	81.37	
	North	82.63	92.2	
	South	57.03	75.41	
	West	46.92	85.04	
	Eldas	49.72	70.25	
	Wajir East	68.13	81.61	
Samburu	County	65.49	74.6	All the Sub counties reported above normal vegetation greenness that is similar to the previous month across the County.
	East	62.92	77.26	
	North	71.27	76.59	
	West	55.83	56.61	
Garissa	County	61.21	79.78	Significant improvements noted in January with the vegetation greenness being above normal across all the sub-counties as opposed to previous month for Balambala and Township Sub counties reported normal vegetation greenness in Deecember 23.
	Balambala	49.41	77.94	
	Township	46.37	81.14	
	Ijara	74.14	79.75	
	Fafi	63.06	83.58	
	Lagdera	57.01	82.12	
	Dadaab	55.17	70.57	
Isiolo	County	67.15	90.96	Similar to the previous month, vegetation greenness remained above normal across all the Sub counties
	North	65.63	93.74	
	South	69.47	86.71	
Tana River	County	58.99	78.53	Notable improvement in the condition of vegetation was witnessed in December with the vegetation greenness being above normal. Bura Sub county recorded a significant improvement from the moderate vegetation deficit reported in November.
	Bura	51.38	74.5	
	Galole	58.16	76.07	
	Garsen	65.97	83.49	
Kajiado	County	64.4	81.05	The county reported above normal vegetation greenness with a significant improvement being witnessed across the sub-couties,similar to the previous months.
	Central	59.72	79.16	
	East	59.61	86.31	
	North	64.33	75.03	

	South	61.43	88.06	
	West	71.51	74.31	
Embu	County	70.62	80.13	Similar to the previous month, vegetation greenness remained above normal across all the Sub counties
	Manyatta	70.92	74.21	
	Mbeere North	75.84	84.3	
	Mbeere South	67.23	80.01	
	Runyenjes	71.14	77.82	
Kitui	County	57.79	74.09	Above normal vegetation greenness was observed across all the Sub counties,Similar to the previous month period
	Central	63.59	74.17	
	East	60.48	73.89	
	Rural	64.73	80.32	
	South	58.01	76.92	
	West	58.54	73.33	
	Mwingi Central	53.41	71.1	
	Mwingi North	55.17	67.79	
	Mwingi West	66.23	81.35	
Makueni	County	62.72	79.77	Similar to the previous month, vegetation greenness remained above normal across all the Sub counties. Significant improvement noted across the county..
	Kaiti	76.26	81.57	
	Kibwezi East	53.73	76.51	
	Kibwezi West	63.69	80.78	
	Kilome	64.37	83.12	
	Makueni	67.22	82.07	
	Mbooni	67.62	78.12	
Meru	County	67.23	74.02	Similar to the previous month, vegetation greenness remained above normal across all the Sub counties
	Buuri	65.94	73.78	
	Central-Imenti	65.59	74.08	
	Igembe Central	70.82	78.6	
	Igembe North	76.87	83.82	
	Igembe South	66.35	75.76	
	North Imenti	58.54	53.3	
	South Imenti	63.59	76.08	
	Tigania East	64.48	66.84	
	Tigania West	60.44	61.64	
Nyeri	County	62.9	61.83	Similar to the previous month, vegetation greenness remained above normal across all the Sub counties with significant improvement
	Kieni	63.65	64.12	
	Mathira	59.27	55.57	
	Mukurweini	63.33	64.48	
	Nyeri Town	59.13	66.73	
	Othaya	67.98	59.95	
	Tetu	60.24	56.06	
Kilifi	County	54.64	74.53	Above normal vegetation greenness was observed across all the Sub counties,this is the same to the previous month
	Ganze	53.73	77.09	
	Kaloleni	61.48	76.92	

	Kilifi North	57.64	68.46	
	Kilifi South	52.43	65.42	
	Magarini	53.84	74.85	
	Malindi	56.16	70.73	
	Rabai	58.55	69.6	
Kwale	County	65.67	78.06	Similar to the previous month, vegetation greenness remained above normal across all the Sub counties
	Kinango	62.45	79.37	
	Lunga	73.94	80.01	
	Matuga	63.46	71.09	
	Msambweni	69.99	70.92	
Lamu	County	76.63	80.44	Similar to the previous month, vegetation greenness remained above normal across all the Sub counties
	Lamu East	69.15	79.03	
	Lamu West	80.96	81.25	
Taita Taveta	County	51.44	82.11	Above normal vegetation greenness was recorded across the sub-counties as opposed to previous months
	Mwatate	47.3	79.74	
	Taveta	46.75	84.74	
	Voi	54.14	81.44	
	Wundanyi	56.89	85.18	
Narok	County	73.36	77.55	Above normal vegetation greenness was observed across all the Sub counties.
	Emurua Dikirr	91.63	92.93	
	Kilgoris	78	76.55	
	Narok East	62.44	79.25	
	Narok North	58.95	64.01	
	Narok South	72	77.09	
	Narok West	82.96	83.63	
West Pokot	County	64.29	55.38	Similar to the previous month, vegetation greenness remained above normal across all the Sub counties.
	Kacheliba	59.81	50.37	
	Kapenguria	67.14	55.97	
	Pokot South	68.85	64.03	
	Sigor	67.34	58.9	
Tharaka Nithi	County	58.25	69.53	vegetation greenness remained above normal across all the Sub counties; with improvement being noted in across the county.
	Chuka	71.78	80.42	
	Maara	62.45	76.53	
	Tharaka	51.81	63.2	
Laikipia	County	62.22	74.16	Above normal vegetation greenness was observed across all the Sub counties.
	Laikipia East	71.98	79.06	
	Laikipia North	63.25	78.21	
	Laikipia West	55.57	64.21	

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
Utilisation	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 15). The combined analysis from all four indicator groups then determines the particular drought phase:

1. Normal
2. Alert
3. Alarm
4. Emergency
5. Recovery

Identifying the correct drought phase helps to guide the most appropriate response for that stage in the drought cycle (Figure 5).

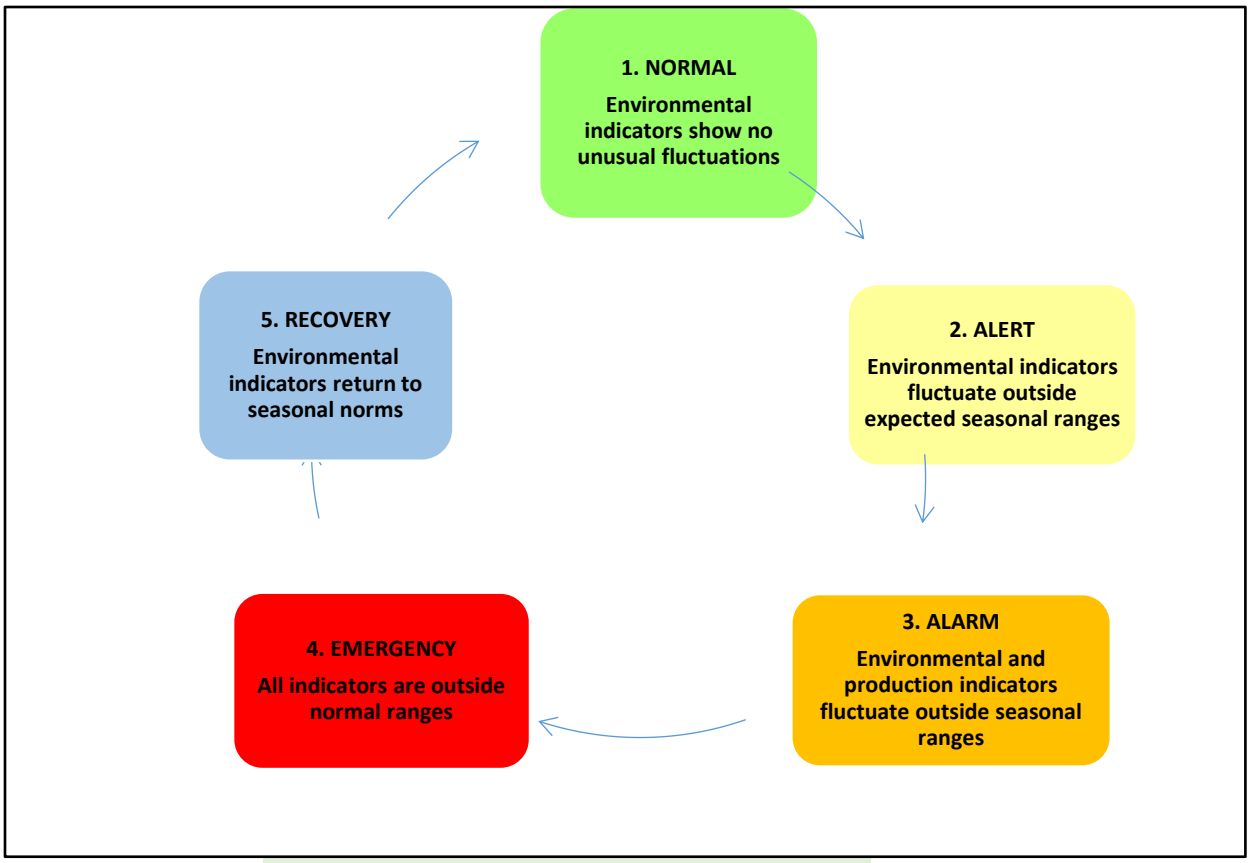

Figure 5: *Drought Phase Classification*