



THE UNITED REPUBLIC OF TANZANIA

Ministry of Agriculture

P.O Box 2182, 40487 DODOMA. Telephone: +255-022-2862064,

Fax: +255-022-2862077, E-mail: [ps@kilimo.go.tz](mailto:ps@kilimo.go.tz)

National Food Security Bulletin



Volume 57-2025

<http://www.kilimo.go.tz>

31 JANUARY, 2025

## 1.0 NATIONAL HIGHLIGHTS

- In bimodal areas, maize was observed at various growth stages, ranging from vegetative to reproductive (from tasseling to maturity), while beans reached the maturity stage. Farmers continued harvesting beans and began the maize harvesting season. However, stressed conditions were noted in some regions due to reduced soil moisture. Additionally, farmers have commenced land preparations for the upcoming Masika rainy season, which is expected to begin in early March this year. In unimodal areas, field activities such as weeding, fertilizer application, disease and pest control were ongoing. Crops were generally in favorable condition across most regions, except in parts of Lindi, Mtwara, Dodoma, and Singida, where stressed (Watch) conditions were observed due to insufficient soil moisture.
- Cassava continues to thrive under favorable conditions nationwide, with the crop at various growth stages.
- Maize prices were highest in Tanga and Lindi markets and lowest in Songwe market.
- Rice wholesale prices were highest in Arusha, Lindi, and Iringa markets and lowest in Tabora, Simiyu, and Shinyanga markets.
- Dry bean prices were highest in Songwe, Dar es Salaam, Lindi and Morogoro markets and lowest in Tanga and Njombe markets.

### TABLE OF CONTENTS

National Highlights.....	1
Major Crop Conditions.....	1
Satellite-Based information.....	2
Rainfall Performance.....	6
Rainfall Outlook.....	7
Major Food Prices.....	8
Number of Permits.....	10
Food Security.....	11
Public Awareness.....	12
Terms and Definitions.....	13

## 2.0 CROP CONDITIONS FOR MAJOR FOOD CROPS

### Maize

In bimodal areas, maize was observed at various growth stages, ranging from vegetative to reproductive (from tasseling to maturity), with generally favorable conditions. However, stressed (Watch) conditions were noted in some parts of Arusha, Pwani, Simiyu, Tanga, and Shinyanga due to reduced soil moisture. In unimodal areas, various field activities such as weeding, fertilizer application, disease and pest control were ongoing. Crops were primarily at the vegetative stage in most regions, while some areas observed crops progressing from tasseling to grain filling stages. Overall, crop conditions were favorable in most areas, except in parts of Lindi, Mtwara, Dodoma, and Singida, where stressed (Watch) conditions were observed due to insufficient soil moisture.



**Source:** Shinyanga DC in Shinyanga Region

### Beans

In unimodal areas, beans were primarily at the vegetative stage, with favorable conditions observed in most regions. In areas where early planting occurred, the crop had progressed to the tasseling and grain filling stages. In bimodal areas, beans had reached the maturity stage in most parts, and harvesting activities were underway.



**Source:** Geita DC in Geita region

### Cassava

Cassava is typically planted at different times depending on soil moisture availability, resulting in varying growth stages across the country. Favorable conditions were reported in most regions.



**Source:** Mkuranga DC in Pwani Region



## Paddy

In both unimodal and bimodal areas, field management activities were ongoing in most regions, with crops primarily at the vegetative stage.

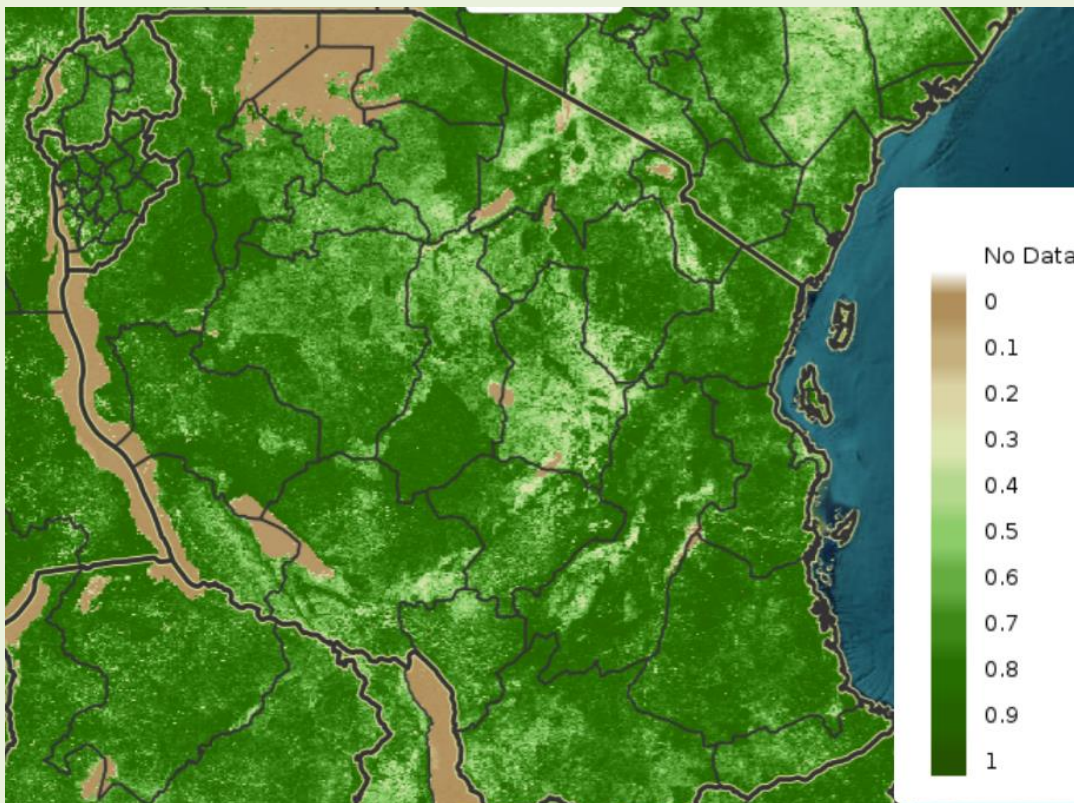
**Note:** In some irrigation schemes, paddy had reached the maturity stage, and harvesting activities were in progress.



**Source:** Shinyanga DC in Shinyanga Region

## 3.0 SATELITE-BASED INFORMATION

### 3.1 Satellite-Based Vegetative Conditions



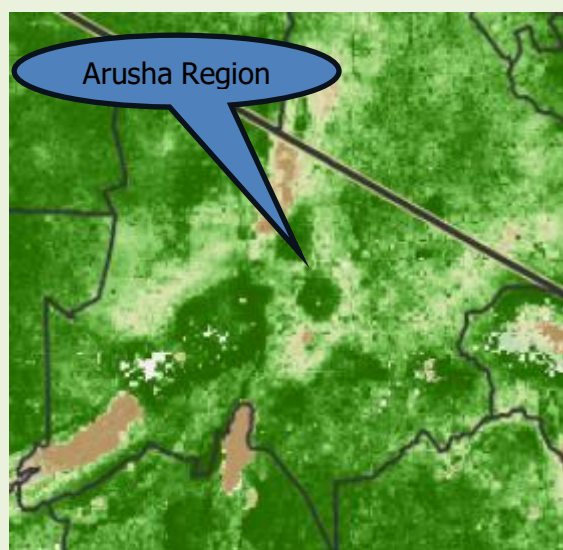
**Figure .1:** Normalized Difference Vegetation Index (NDVI) for 11<sup>th</sup>-20<sup>th</sup> January, 2025

**Source:** (EWX) <https://earlywarning.usgs.gov/fews/ewx/index.html?region=af>

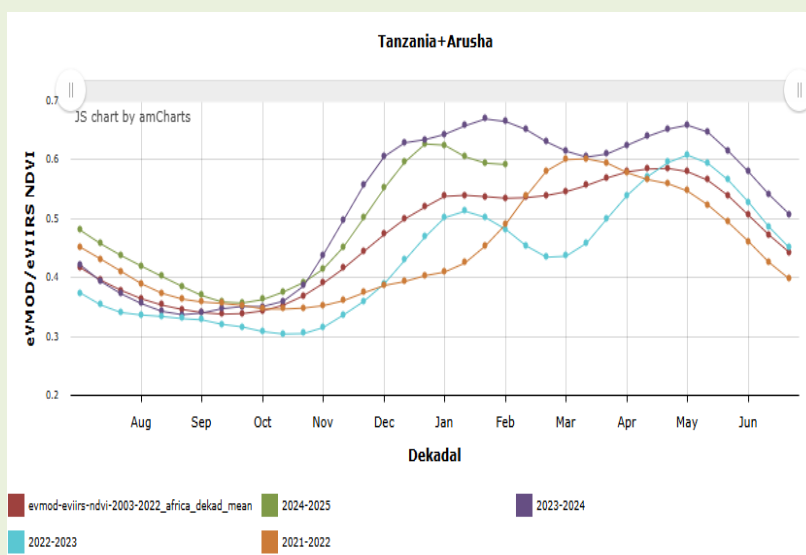
In January 2025, the NDVI map indicates widespread healthy vegetation across Tanzania, with most areas showing values above 0.5, suggesting good plant cover.

**Regional Variability:** Higher NDVI values (above 0.7) are concentrated in northwestern (Kagera, Kigoma, Mwanza), and eastern (Morogoro, Pwani, Dar es Salaam), indicating strong vegetation growth, likely due to off season rainfall. The northern (Arusha, Manyara, Kilimanjaro) and central (Dodoma, Singida) areas as well as Shinyanga contain scattered dry patches, aligning with lower rainfall. While the southern regions like (Ruvuma, Lindi, Mtwara, Mbeya, Njombe, Iringa, Songwe) display a mix of moderate to high NDVI values, with some areas exceeding 0.6, indicating good vegetation conditions. However, localized dry patches in Ruvuma and Lindi suggest variability in rainfall distribution or land use impacts.

**Comparison with Historical Trends:** The NDVI levels in January 2025 appear close to historical averages but slightly lower than the peak levels observed in January 2024, suggesting minor variations in rainfall distribution.



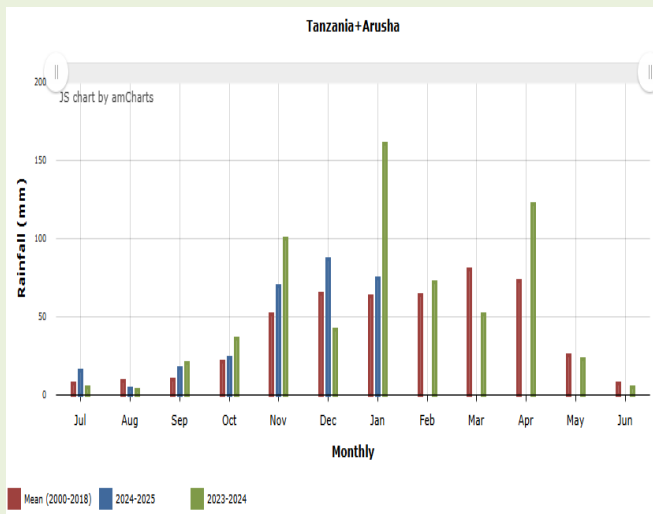
**Figure 2:** Normalized Difference Vegetation Index (NDVI) for Arusha for 11-20 January, 2025



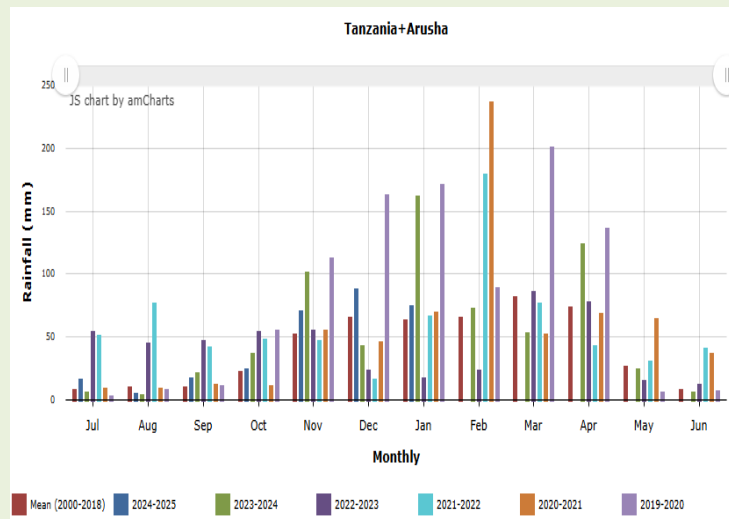
**Figure 3.** 10 days NDVI for January, 2025 as it compares to 2022, 2023, 2024 and the long term mean for Arusha Region.

**Source:** (EWX) <https://earlywarning.usgs.gov/fews/ewx/index.html?region=af>

When compared to the long term mean NDVI and the NDVI anomalies for January 2022, 2023 and 2024, the NDVI for Arusha in January 2025 were higher than January 2022, 2023 and the long-term mean but it was below than the NDVI for January 2024 (Fig.3).



**Figure 4 a:** Climatology of Arusha region indicates how rainfall performs in 2024/2025 season as compared to 2023/2024 season



**Figure 4 b:** Climatology of Arusha Region for Five years comparison indicates how rainfall performed for five consecutive years.

**Source:** (EWX) <https://earlywarning.usgs.gov/fews/ewx/index.html?region=af>

The figures illustrate the climatology of rainfall in the **Arusha region**, comparing the **2024/2025 season to 2023/2024 (Figure 4a)** and **five-year rainfall trends (Figure 4b)**. Below is a detailed interpretation:

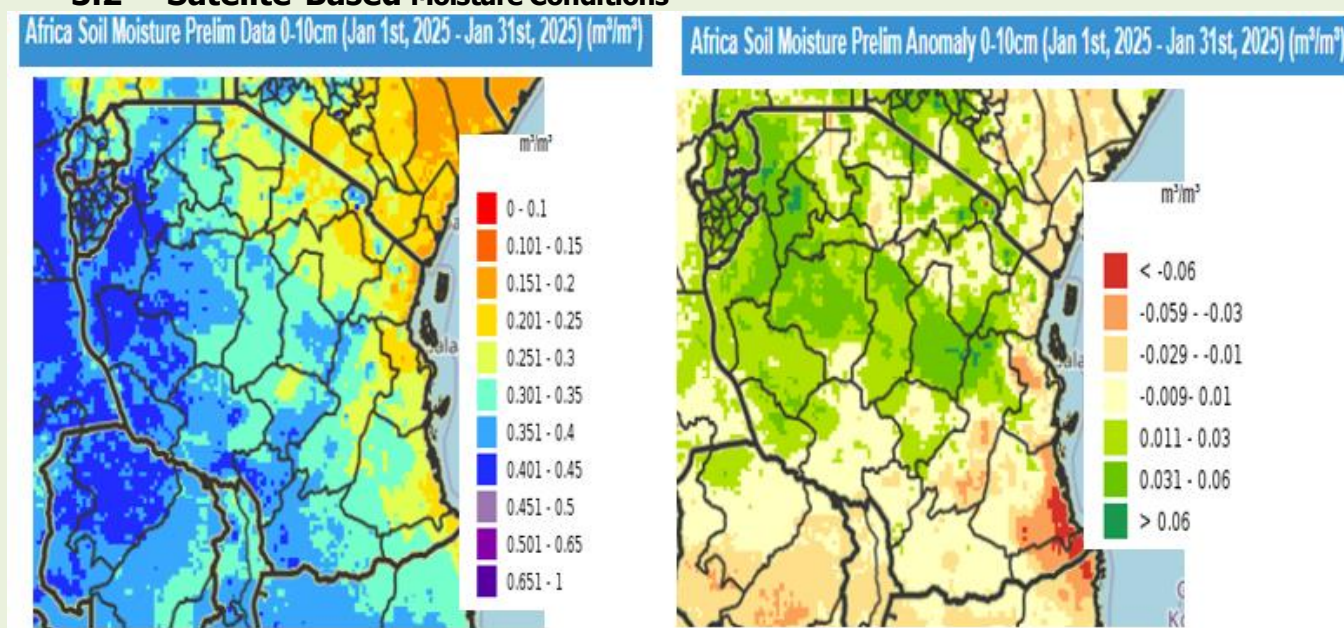
- The 2023/2024 season (green bars) shows higher peak rainfall, especially in January and April, compared to the 2024/2025 season (blue bars) and historical mean (red bars)
- The 2024/2025 season has recorded below-average rainfall in December and January, indicating a drier start to the main rainy season compared to 2023/2024
- Rainfall in Arusha exhibits high interannual variability, with some years experiencing significantly higher peaks (e.g., February in 2021/2022 and 2022/2023)
- The 2024/2025 season (blue bars) appears below some previous years' rainfall levels, suggesting a potentially drier-than-average year.

### Implications

- The lower rainfall in early 2025 may impact soil moisture, water availability, and crop conditions if the trend continues.
- If rainfall does not pick up in the coming months, it could lead to water stress for agriculture and livestock.
- The unpredictable nature of rainfall requires continuous monitoring to assess drought risk.
- The drier conditions in 2024/2025, if sustained, could impact crop yields and pasture growth, affecting food security and livelihoods.



### 3.2 Satellite-Based Moisture Conditions



**Figure 5:** Soil Moisture condition for 1<sup>st</sup> – 31<sup>st</sup> January, 2025; Observed soil moisture (left) and deviation from long term monthly mean (right).

The provided maps illustrate soil moisture conditions across Tanzania for January 1st – 31st, 2025.

#### Left Map: Observed Soil Moisture (0-10cm Depth)

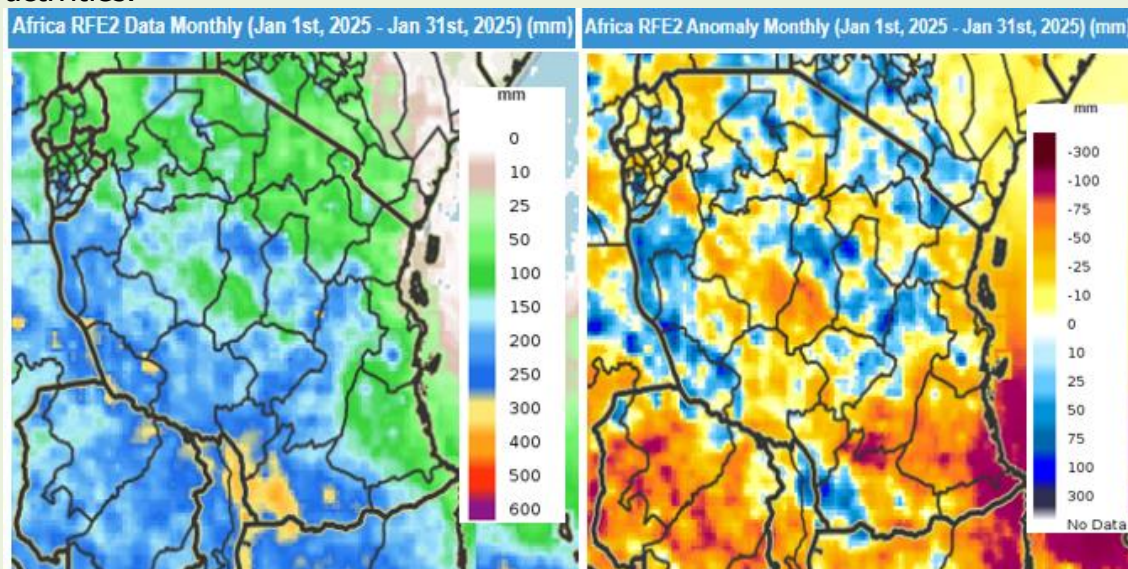
- Most parts of Kigoma, Tabora, Katavi, Rukwa, and western Mbeya exhibit high soil moisture levels (dark blue shades), indicating sufficient water retention.
- Most part of Mara, Simiyu, Arusha, Kilimanjaro, Manyara, Dodoma, Tanga, Pwani, Dar es Salaam, Mtwara, Lindi, and parts of Morogoro and Iringa) display moderate to low soil moisture (yellow-orange shades), suggesting drier surface conditions.

#### Right Map: Soil Moisture Anomaly (Deviation from Long-Term Average)

- **Positive anomalies** (green shades in northern and central Tanzania, including Arusha, Manyara, and parts of Dodoma) indicate higher-than-average soil moisture, suggesting wetter conditions compared to historical trends.
- **Negative anomalies** (red and orange shades in coastal areas, southern Tanzania, and parts of eastern Dodoma) indicate below-average soil moisture levels, signifying drier-than-normal conditions.
- Western and northwestern regions (Kagera, Kigoma, Rukwa, Katavi, and Tabora) display near-normal to slightly increased moisture levels.

#### 4.0 Rainfall Performance During January, 2025

In January, 2025 some parts of the country experienced periods of rainfall with slightly enhanced rains observed during the third and fourth weeks. Additionally, heavy rainfall was reported in some areas, leading to flooding, water logging, damage to infrastructure, property and disruptions to economic activities.



**Figure 6:** Tanzania Rainfall Distribution for 1<sup>st</sup> – 31<sup>st</sup> January, 2025; as total (left) and deviation from long term monthly mean (right).

The two maps illustrate rainfall conditions across Tanzania for January 1<sup>st</sup> – 31<sup>st</sup>, 2025 in terms of total precipitation (left) and deviation from the long-term monthly mean (right).

##### 1. Rainfall Distribution (Left Map)

- Most part of Tanzania received moderate rainfall, **with totals ranging between 50 mm and 150 mm (green and blue shades).**
- Higher rainfall amounts (above 200 mm) **are concentrated in** western and southern Tanzania (Mbeya, Ruvuma, Njombe, Iringa, Rukwa, Katavi, Kigoma, and southern Morogoro), **as indicated by yellow and red patches.**
- Parts of Tanga, Pwani, Dar es Salaam, Lindi, Mtwara, Arusha, Manyara and Kilimanjaro **received lower rainfall amounts (less than 50 mm), suggesting** drier-than-normal conditions.

##### 2. Rainfall Anomaly (Right Map)

- Blue areas represent above-average rainfall, **while** yellow to red shades indicate below-normal rainfall.
- Above-average rainfall (blue shades) is observed in parts northwestern and central Tanzania (Kagera, Kigoma, Mwanza, and Singida), suggesting wetter-than-normal conditions.
- Below-average rainfall (yellow, orange, and red shades) dominates eastern, southern, and parts of central Tanzania, including coastal regions (Dar es Salaam, Pwani, and Lindi). **These areas experienced a** rainfall deficit of more than 50 mm compared to historical averages.
- The most significant negative anomalies (red areas) are found in some part of Mtwara and Lindi, indicating a substantial dry spell compared to past trends.

#### 4.1 Agrometeorological Impact During January, 2025

Favourable soil moisture was experienced in most part of unimodal areas. In bimodal areas, January marked the end of "Vuli" rain season. Farmers in bi-modal areas where they had early planting were engaging in Harvesting while those who had late planting were engaging in other farm activities. In unimodal areas farmers were actively engaged in field management activities including weeding, fertilizer and pesticide application as crops advanced to vegetative stages.

#### 4.2 Weather Outlook for February, 2025:

During the month of February, 2025 Msimu rains are expected to continue across most unimodal areas. In bimodal areas, off seasonal rains are anticipated in some areas. Additionally, enhanced rainfall is likely in some areas during the month, potentially leading to localized flooding. Conversely, warm to slightly hot temperatures are expected to persist over some areas with insufficient rainfall. Details of the weather outlook for January as per Tanzania Meteorological Authority (TMA) is as follows;

**Northern Coast (Tanga, Pwani, Dar es Salaam regions, northern part of Morogoro region, Mafia, Unguja and Pemba Islands):**

Rainfall is expected in some areas during the month. However, slightly enhanced rains are expected in a few areas during the first week of the month.

**North Eastern Highlands (Kilimanjaro, Arusha and Manyara regions):**

Rainfall is expected in a few areas during the month, with a slight increase in rainfall expected during the first week followed by reduction.

**Lake Victoria basin (Kagera, Geita, Shinyanga, Mwanza, Mara and Simiyu regions):**

Rainfall is expected over some areas during the month. Slight enhanced rainfall is anticipated in few areas during the second week.

**Western regions (Kigoma, Katavi and Tabora regions):**

Rainfall is expected over some areas during the month, with a slight enhancement expected over few areas during the second week of the month.

**Central areas (Dodoma and Singida regions):**

Rainfall is expected in some areas, with a slight enhanced rainfall expected in a few areas particularly between the first and second week of the month.

**Southwestern Highlands (Rukwa, Songwe, Mbeya, Njombe, Iringa regions and Southern part of Morogoro region):**

Rainfall is expected to continue over some areas during the month. A slight enhancement is anticipated in some few areas during the first and second weeks.

**Southern Coast (Mtwara and Lindi regions):**

Rainfall is expected to continue in some areas with a slight enhancement during the first weeks of the month.

**Southern Region (Ruvuma region):**

Rainfall is expected over some areas. However, a slight increase in rainfall is expected during the first and second weeks.



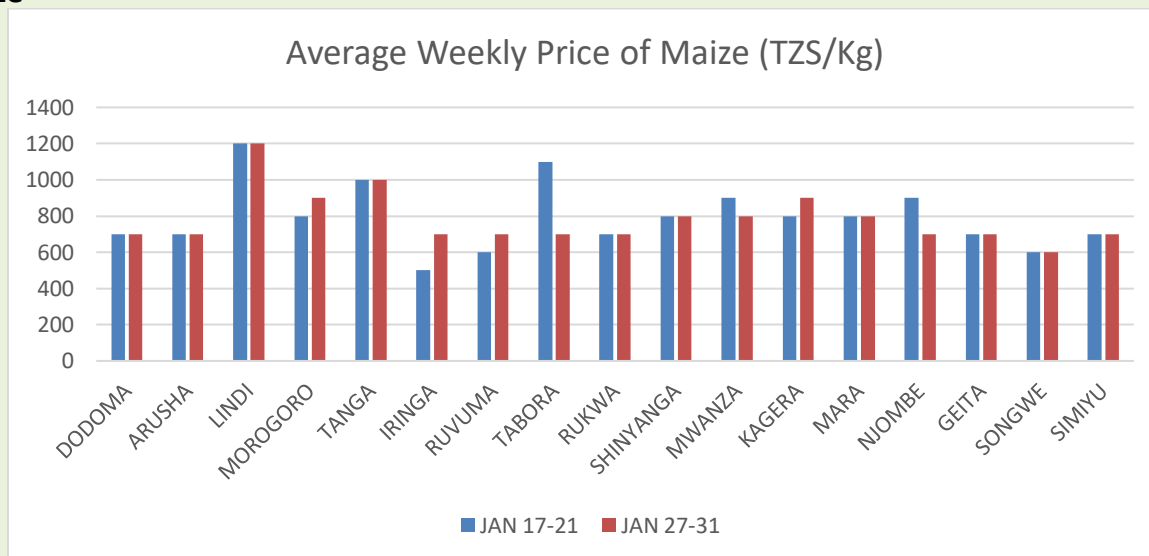
#### 4.1 Further Outlook for the month of March, 2025

During the month of March, 2025 rainfall is expected to continue over unimodal areas. Meanwhile, Masika 2025 rains are expected to start over bimodal areas. Additionally, warm to hot temperatures are expected over some areas.

#### 5.0 FOOD PRICES FOR MAJOR FOOD CROPS

On weekly basis, the national average wholesale prices for major food crops (Maize, Rice and Beans) varied as follows;

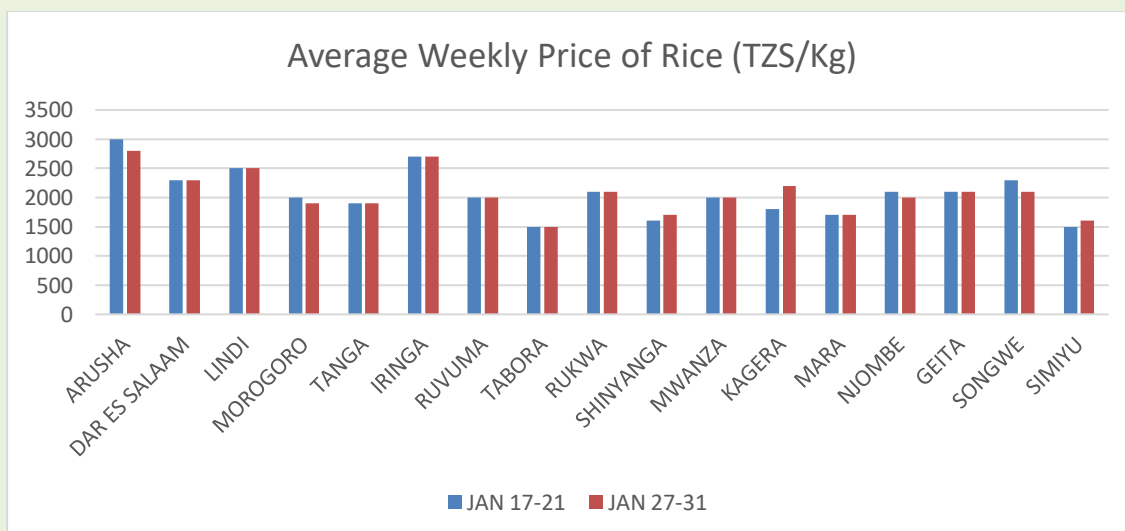
##### Maize



**Figure 7:** Average weekly prices of maize grain at major markets

- Maize prices were highest in Tanga and Lindi markets and lowest in Songwe market.

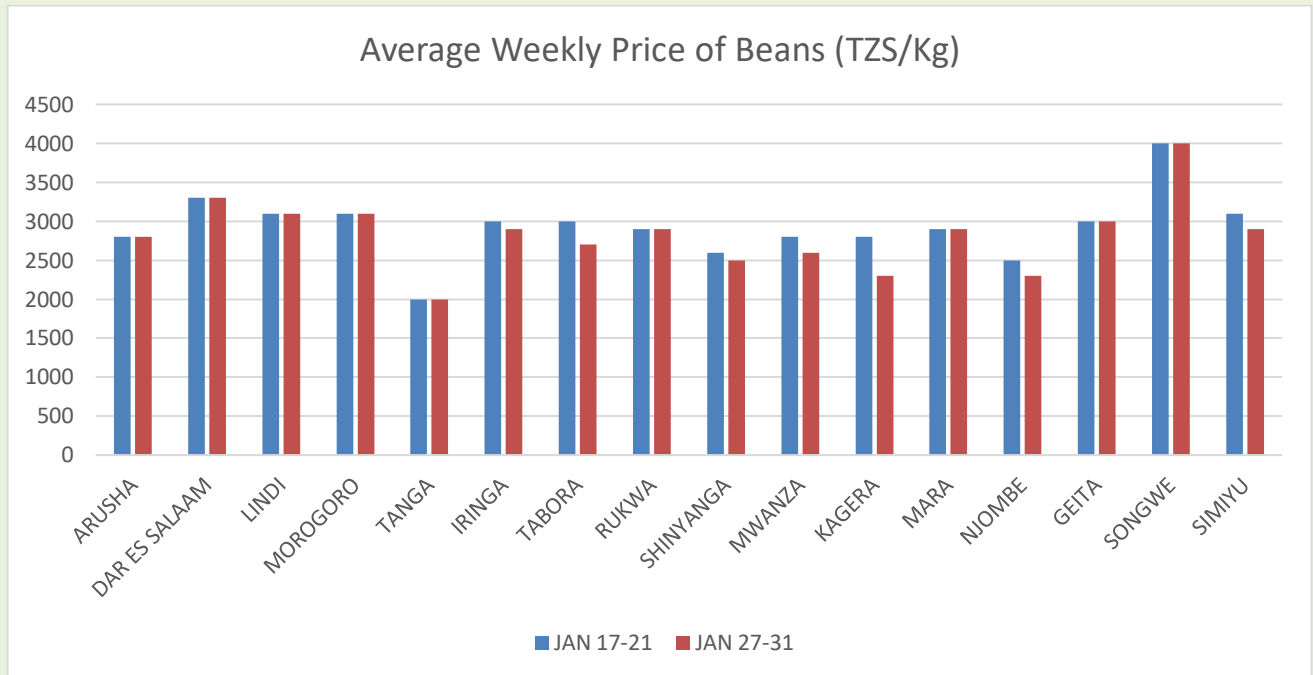
##### Rice



**Figure 8:** Average weekly prices of rice at major markets

- Rice wholesale prices were highest in Arusha, Lindi and Iringa markets and lowest in Tabora, Simiyu and Shinyanga markets.

## Beans



**Figure 9:** Average weekly prices of dry beans at major markets

- Dry beans prices were highest in Songwe, Dar es salaam, Lindi and Morogoro markets and lowest in Tanga and Njombe markets

## 6.0 Number of Permits and Quantity (MT) of Maize, Maize Flour, Rice, and Beans Issued During the Month of January 2025 to Various Countries

Na	Country	Number of Permit	Amount(MT)
<b>Maize Permit</b>			
1	Kenya	34	18140
2	Uganda	3	5500
3	DRC	5	2000
4	Zambia	1	1800
5	Malawi	2	1767
6	Rwanda	3	1230
	<b>Total</b>	<b>48</b>	<b>30437</b>
<b>Maize Flour Permit</b>			
1	Zambia	4	2900
2	DRC	4	1450
3	Kenya	2	600
	<b>Total</b>	<b>10</b>	<b>4950</b>
<b>Rice Permit</b>			
1	Rwanda	9	5950
2	Kenya	18	3740
3	Uganda	11	3430
4	Zambia	1	1500
5	Sudani	2	800
6	DRC	4	650
7	Burundi	1	300
	<b>Total</b>	<b>46</b>	<b>16370</b>
<b>Bean Permit</b>			
1	Uganda	5	750
2	Kenya	10	740
3	Burundi	1	200
4	Zimbabwe	1	50
	<b>Total</b>	<b>17</b>	<b>1740</b>



## 7.0 NATIONAL FOOD SECURITY

Over the past four consecutive years, food security situation in Tanzania has progressively improved, with production increasing from 17,148,290 tons in 2021/2022 to 22,803,316 tons in 2023/2024, representing a 32.9% increase. Furthermore, based on the Self Sufficiency Ratio (SSR), over the past ten consecutive years, the country has been self-sufficient at a level ranging from 114% to 128%. In 2024/2025, the country has reached a self-sufficiency ratio of 128%, which indicates a surplus status.

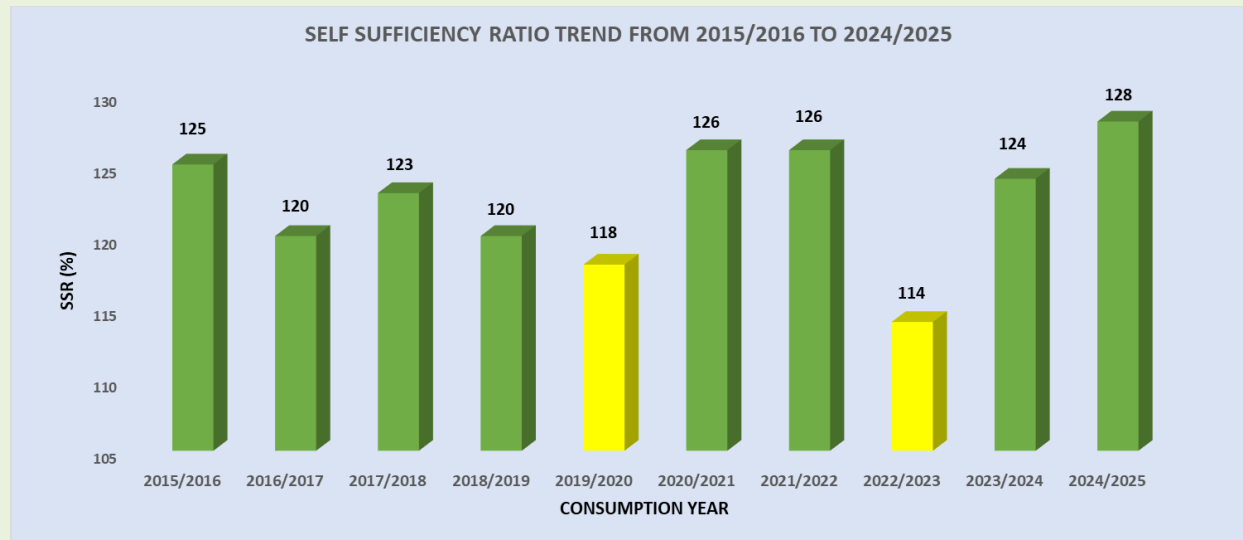


Figure 10: Self Sufficiency Ratio Trends (2015/2016-2024/2025)

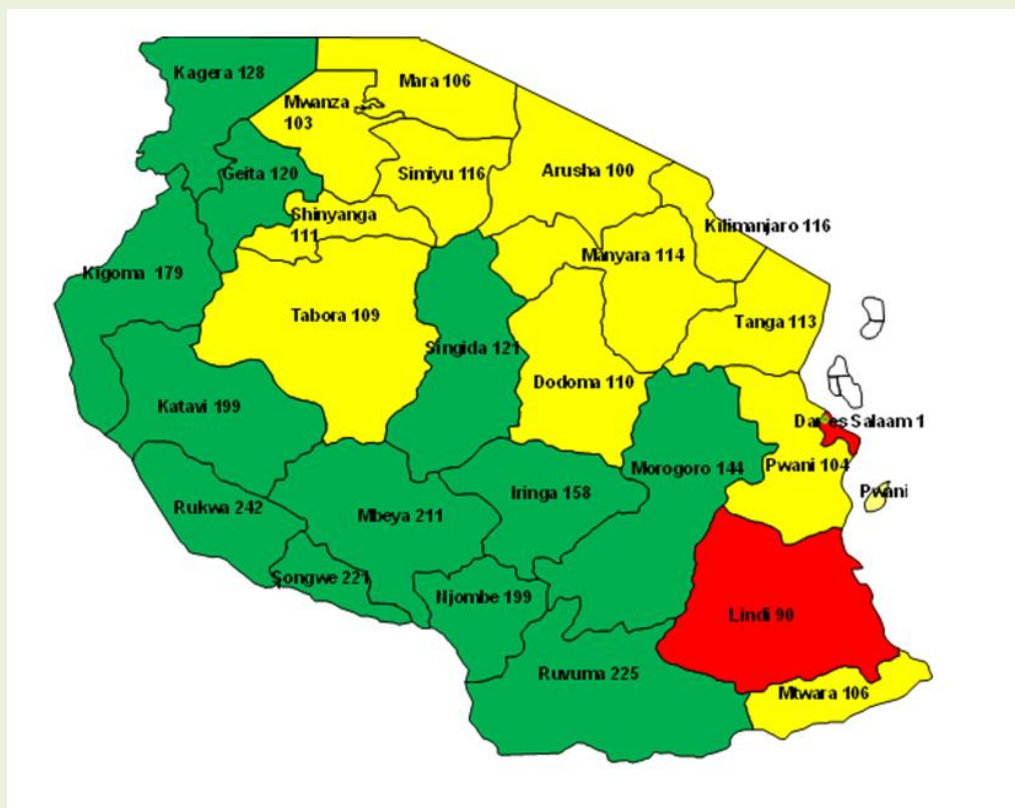


Figure 11: Region Level - Self Sufficiency Ratio for the 2024/2025 consumption year

## 8.0 PUBLIC AWARENESS

### 8.1 Great Horn of Africa Climate Outlook Forum (GHACOF)-Seasonal Forecast (March to May-MAM 2025)

March to May (MAM) rainy season is an important rainfall season for many areas in the Great Horn of Africa (GHA) region. This season contributes between 20% to 70% of the total annual rainfall in various parts of the region.

According to the forecast issued by the ICPAC (IGAD Climate Prediction & Application Centre), the March-May 2025 (MAM 2025) rainy season is expected to experience **below normal to normal** rainfall (drier conditions) in Somalia, Eastern/Northern Kenya, Southern/Northeastern Ethiopia, Djibouti, coastal areas of Eritrea, Western South Sudan, Southern/Western Uganda, Rwanda, Burundi, and Northwestern Tanzania.

On the other hand, **above normal to normal** rainfall is expected in Central/Southern and Northern Tanzania, Northeastern Uganda, Eastern South Sudan, and Western Ethiopia. Furthermore, rainfall is expected to start on time or earlier (Normal to early onset) in most parts of the Region, except in central Kenya and Southern/Northwestern Ethiopia, where the rains are expected to start late (Delayed onset).

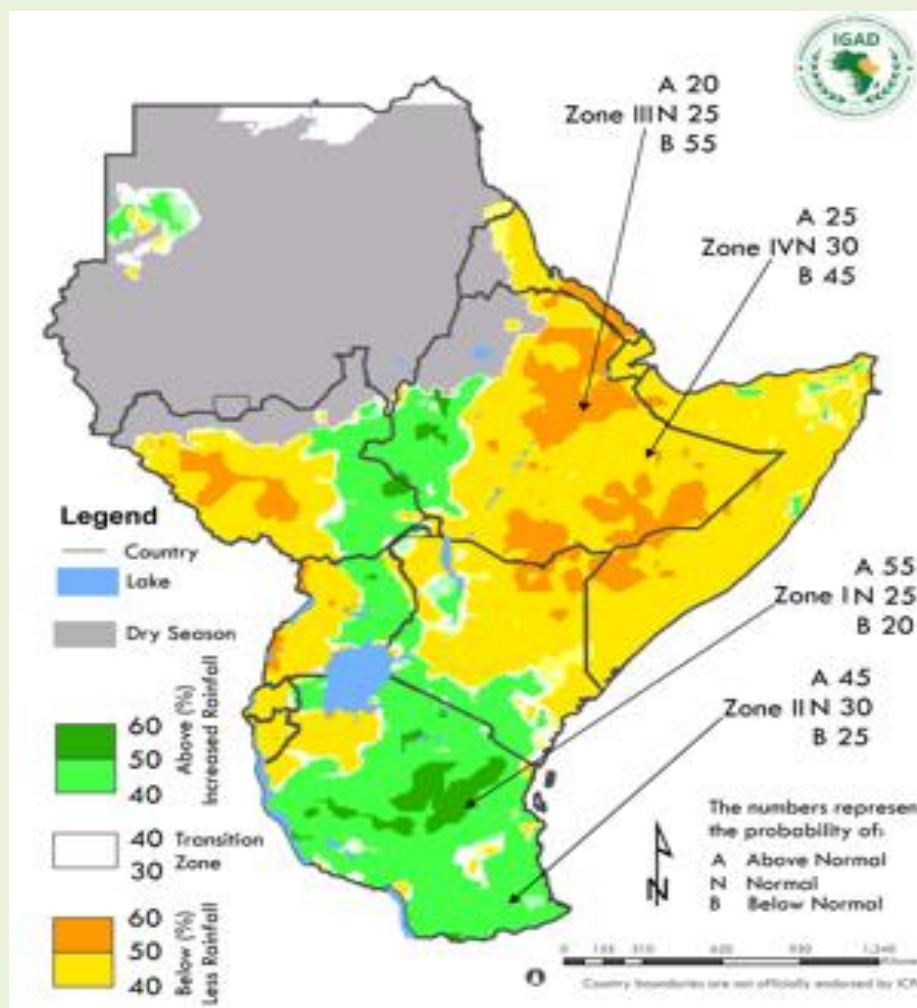


Figure 12: GHA Rainfall Probabilistic Forecast October - December 2024

## 9.0 ACRONYM TERMS AND DEFINITIONS

MoA	Ministry of Agriculture
TMA	Tanzania Metrological Agency
NDVI	Normalized Difference Vegetative Index. The NDVI is used to measure and monitor plant growth, vegetative cover, and biomass production.
BIMODAL	Areas receiving rains twice a year. This means that the majority of precipitation falls in two distinct seasons a year i.e. short rains Vuli-September to December, Long rains Masika - March to May.
UNIMODAL	Areas receiving rains once a year Msimu rains i.e. from November to April
SSR	Self Sufficiency Ratio
EWX	Early Warning explorer