

# AGROMETEOROLOGICAL UPDATE



REPORTING PERIOD:  
21 – 31 JANUARY 2017

**ISSUE No.:** 12    **SEASON:** 2016/17    **RELEASED:** 06/02/2017

CONTENTS	HIGHLIGHTS
HIGHLIGHTS ..... 1	➤ Improved rains continue in most parts...
CONTENTS ..... 1	➤ Warm to hot temperatures observed....
RAINFALL SYNOPSIS AND PROGNOSIS .... 1	➤ Maize crop at advanced stages of flowering and grain filling....
RAINFALL AND TEMPERATURES ..... 2	➤ Slight decline in rainfall during the next dekad.....
RAINFALL ..... 2	➤ Warmer temperatures expected in most parts.....
TEMPERATURES ..... 2	➤ Slight decline in soil moisture expected.....
CROP PRODUCTION..... 3	➤ Winds are going to be light to moderate breeze
MAIZE CROP STAGE AND CONDITION . 3	
OTHER CROPS ..... 3	
CURRENT FARMING ACTIVITY ..... 3	
LIVESTOCK AND PASTURES ..... 3	
WATER (BULK) AVAILABILITY ..... 3	
MEDIUM-TERM OUTLOOK ..... 3	
RAINFALL ..... 3	
TEMPERATURE..... 3	
SOIL MOISTURE ..... 4	
WIND SPEED ..... 4	

## RAINFALL SYNOPSIS AND PROGNOSIS

### ➤ SYNOPSIS - PAST TEN DAYS

The strengthening of the tropical weather systems associated with the Inter-tropical convergence zone (ITCZ) continued to promote rainfall over most parts of the country during the reporting period.

### ➤ PROGNOSIS - NEXT TEN DAYS

Fewer rains are going to be experienced in the next ten days compared to the preceding period. This is because of the dominant upper air high-pressure cell, which is situated over the country, which suppresses any vertical cloud development. This situation is going to ease towards the end of the period after the passage of a cold front. A ridging Atlantic Ocean high pressure south of the continent, which will flux in enough moisture, will follow this. The upper level high pressure system, which is dominant early in the reporting period shifts eastwards leaving an area of upper air divergence, a situation which is likely to give us some rains at the end of the reporting period.

# RAINFALL AND TEMPERATURES

## RAINFALL

Reasonable rainfall fell during the past dekad even though it was below the longterm rainfall but was much better than that of last season (Figure 1).

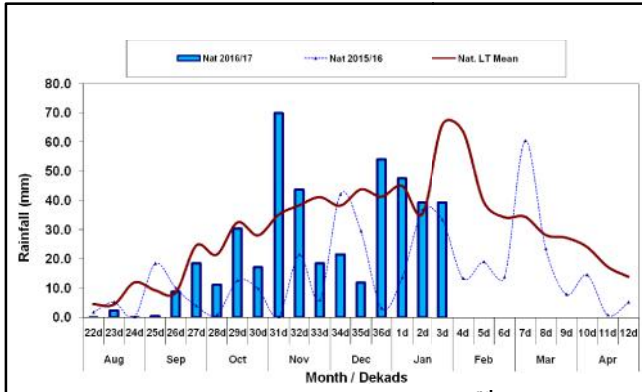
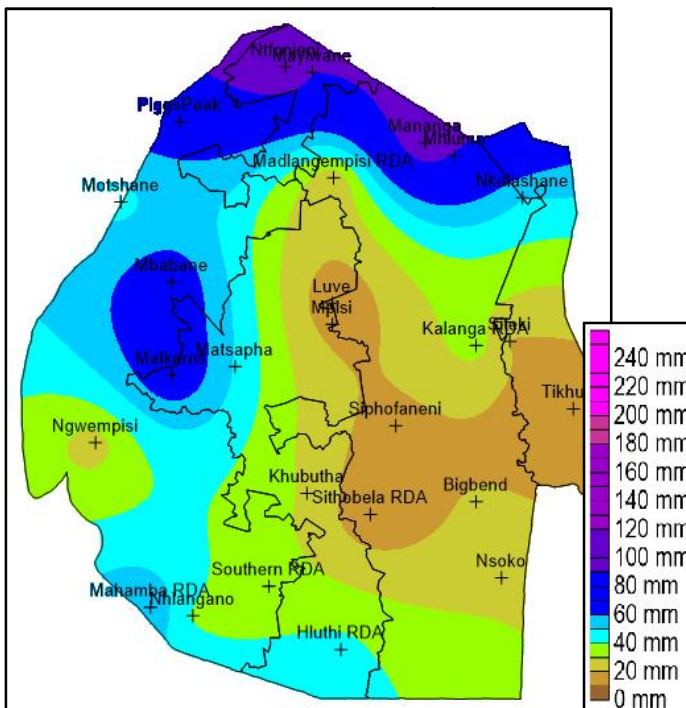


Figure 1: Rainfall distribution as of 3<sup>rd</sup> dekad of January 2017



Map 2: Spatial rainfall distribution for third dekad January 2017

The extreme upper parts of the country, recorded above 80mm rainfall totals, with a few areas in the Lowveld and Lubombo

Plateau recording below 30mm (Map 1). Below average rainfall was recorded in all the four agro-ecological zones of the country as shown the table below (Table 1).

Table 1: Rainfall (mm) for 3<sup>rd</sup> dekad January 2017

	HV	MV	LV	LP
2015/16	39	44	22	29
Average	87	61	52	63
2016/17	50	49	42	16
Anomaly	-37	-12	-10	-47

## TEMPERATURES

Warmer temperatures above 30°C and above the longterm average were recorded in Ngwempisi and Mananga (Figure 2). Mild night temperatures were recorded in most stations with an exception in Matsapha and Mananga where warm temperatures were recorded (Figure 3).

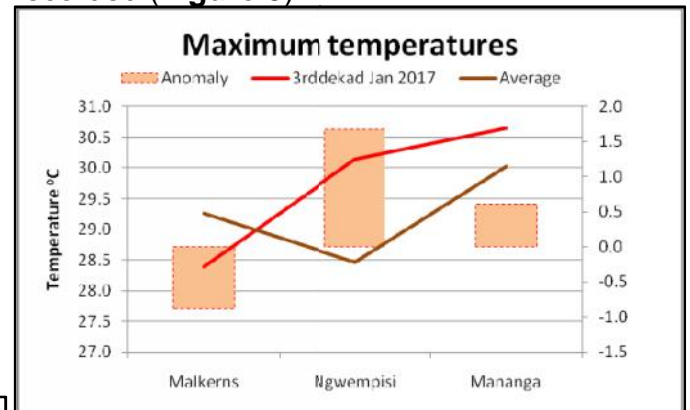


Figure 2: Maximum Temperatures (°C) for 3<sup>rd</sup> Dekad January 2017

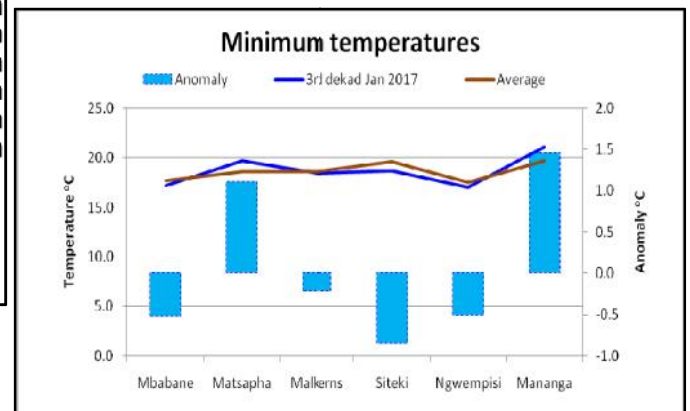


Figure 3: Minimum Temperatures (°C) for 3<sup>rd</sup> Dekad January 2017

## CROP PRODUCTION

### MAIZE CROP STAGE AND CONDITION

The maize crop is at advanced vegetative stage and majority is at flowering and grain filling, thus at a critical stage. The condition is good in most parts with very good harvest prospects.



Picture 1: Maize at tasselling stage at Malanti area in the Hhohho Region

### OTHER CROPS

Pod forming peanuts were found in a good state in the Highveld of Hhohho district around Malanti area (Picture 2).



Picture 2: Peanuts at pod filling stage in the Highveld

### CURRENT FARMING ACTIVITY

Very few farmers are still doing activities in the field, such as weeding and application of LAN on late planted maize crops and other crops..

## LIVESTOCK AND PASTURES

Livestock is in a good state in most parts of the country. The improved vegetation (**Image 1**) has contributed significantly to range conditions, thus the much-improved herds (**Picture 3**).



Picture 3: Cattle herds grazing at Mlumati area

## CROP WATER STRESS

The crop water balance model, does not show a serious crop failure due to the dry spells that occurred in November and December 2016. This is evident when observing the Agricultural Stress Index map generated by the Food and Agriculture (FAO)'s Global Information Early Warning System (**Image 2**)

## MEDIUM-TERM OUTLOOK

### RAINFALL

Reduced rainfall during the early stages of the outlook period, but will improve towards the end of the forecast period.

### TEMPERATURE

Increased chance of warm to hot



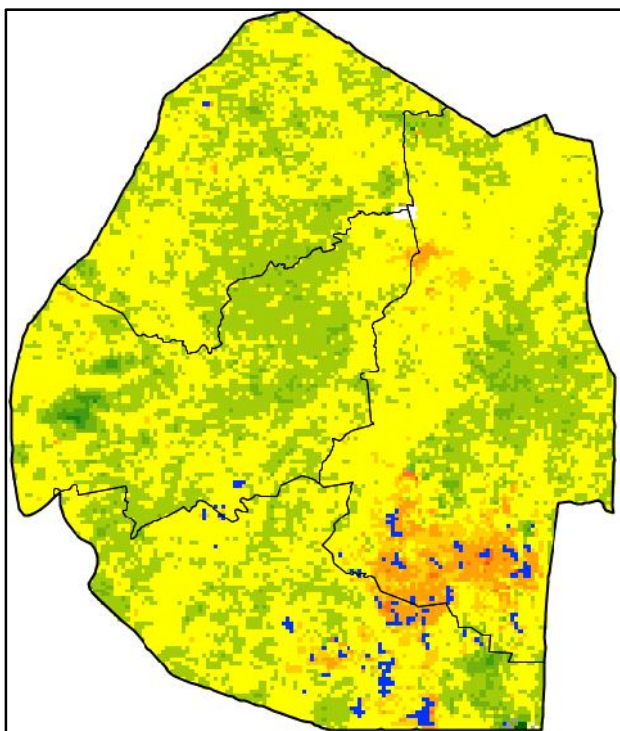
temperatures during the early part of the outlook period and will be mild to warm towards the end of the outlook period.

#### **SOIL MOISTURE**

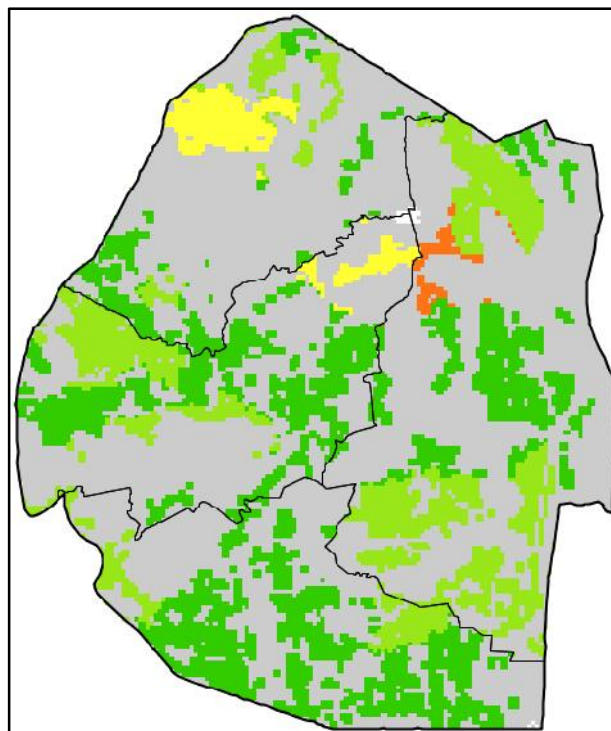
Slight improvement in soil moisture towards the end of the season.

#### **WIND SPEED**

Wind will be light to moderate in most parts.



**Image 1:** Vegetation anomaly image (3<sup>rd</sup> Dekad December 2016) Source: FAO-GIEWS



**Image 2:** Agricultural Stress Index image (3<sup>rd</sup> Dekad January 2017) Source: FAO-GIEWS

## CONTRIBUTORS, PARTNERS AND SOURCES OF INFORMATION

**Please Note:** This bulletin is issued in support of the efforts by the National Early Warning Office (NEWU) for food Security in the Ministry of Agriculture to provide Swaziland's current agronomic and meteorological developments to users, stakeholders, government authorities and international organizations during the farming season.

The NEWS is currently made-up of a core team of the National Early Warning Unit (NEWU) of Ministry of Agriculture, the Agromet Unit of the National Meteorology Department and the Agricultural Statistics Unit of Central Statistics Office (CSO).