



Bulletin N°06/2020

Issued on 04 July 2020

Climatological Bulletin of June 2020

1. INTRODUCTION

The bulletin has three main components which include: (i) the review of climate conditions observed over Rwanda in June 2020, (ii) the prediction of the rainfall in July 2020 and (iii) the highlights on the socio-economic impacts associated with the both observed and predicted climate conditions.

2. HIGHLIGHTS

- **Rainfall performance in June 2020:** The accumulation of rainfall observed during this month was above the Long Term Mean (LTM) in Northern and Western Provinces and the rest of the country recorded below the LTM.
- **Rainfall expected during July 2020:** During the month of July 2020, light rainfall accumulated ranging between 0mm and 30mm is expected over whole the country.
- **The impact associated with both observed and predicted climate conditions:** Over the country, the light rainfall was observed in June 2020, which may lead to poor performance of crops where irrigation is not applicable. Due to the persistence of the dry weather conditions in July 2020, this will lead to water reservoir deplete and high loss of soil moisture among others.

3. CLIMATE PATTERNS

This section provides the climatological summary of the temperature and rainfall for June 2020 in comparison to the Long Term Mean over Rwanda.

3.1 Rainfall amounts in June 2020

During the month of June 2020, rainfall amount recorded over Rwanda was ranging between 3.6mm and 137.9mm. High rainfall of 137.9mm was recorded at Rubavu Airport station in the Western Province. The Northern and Western Province were wet comparatively to Southern, Eastern Provinces and Kigali City. The central region represented by Gitega and Kigali International Airport weather stations of Kigali City recorded 3.06mm and 4.6mm respectively. Nyamagabe and Byimana weather stations of the Southern Province recorded 4.7mm and 42.4mm respectively. The Western Province also recorded 42.5mm over Rusizi, Rubavu (137.9mm), Rubengera (42.3mm) and Bugarama recorded 50.7mm. Gicumbi, Busogo and Musanze weather stations of the Northern Province have recorded 18.2mm, 127.8mm and 49.4mm respectively.

The Eastern Province recorded rainfall ranging between 7.7mm over Nyagatare, 18.9mm over Kawangire and 25mm over Ngoma stations.



3.2 Rainfall performance in comparison to the Long Term Mean

Comparing the performance of the rainfall during the month of June 2020 with the Long Term Mean for the same period, it was observed that the cumulative rainfall for June 2020 was in normal range of Long Term Mean (LTM) in Northern, Southern and Western Province while in the Eastern and Kigali city was below the Long Term Mean (LTM).

The Table and histogram below indicate the rainfall performance of June 2020 compared to the Long Term Mean for the same period over many years.

Stations	June 2020	June LTM
Kigali	4.6	22.1
Gitega	3.06	23.4
Nyamagabe	4.7	39.5
Byimana	42.4	36
Gicumbi	18.2	29.1
Busogo	127.8	48.9
Musanze	49.4	38.5
Bugarama	50.7	25.6
Rusizi	42.5	28.9
Rubavu	137.9	48.4
Rubengera	42.3	53.2
Ngoma	25	19.9
Kawangire	18.9	20.2
Nyagatare	7.7	11.2

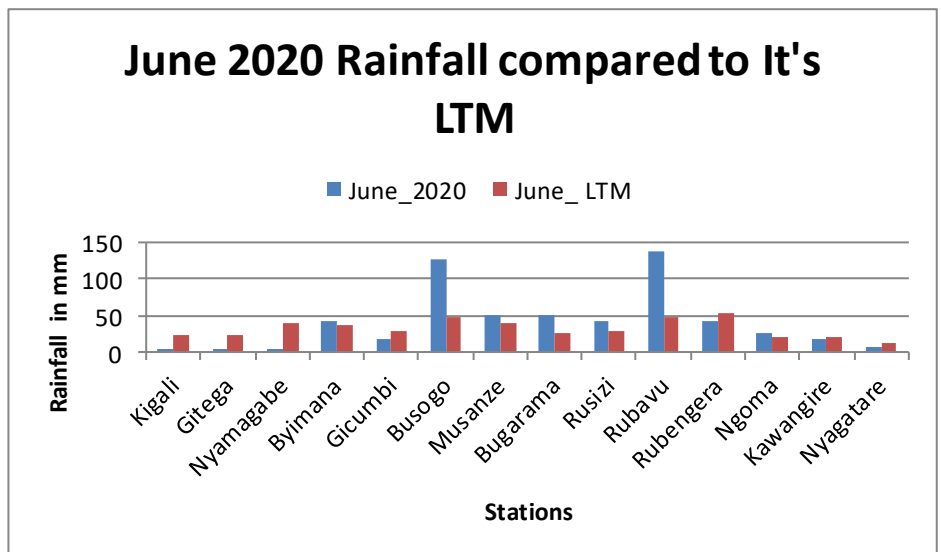
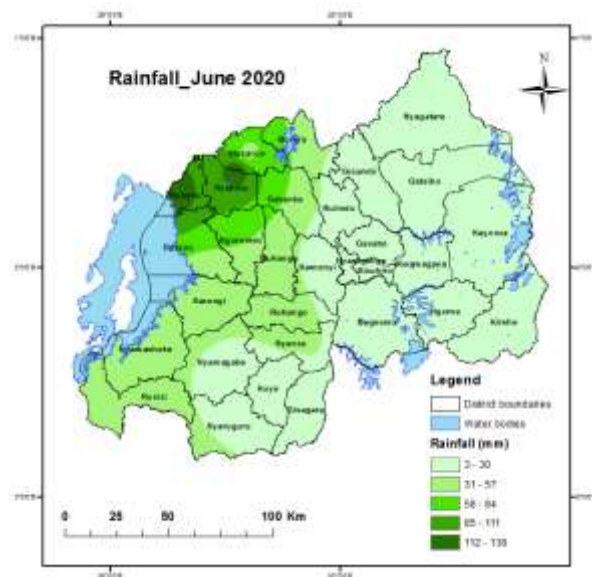


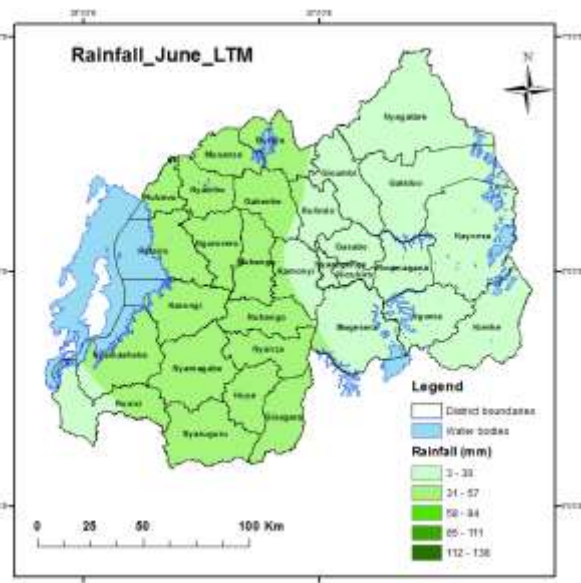
Figure1: Rainfall performance as Compared to the Long Term Mean

Table1: Cumulative rainfall recorded as compared to the LTM

Map 1 & 2 below show rainfall distribution during June 2020 and the Long Term Mean for the same period.



Map1: Rainfall distribution of June 2020



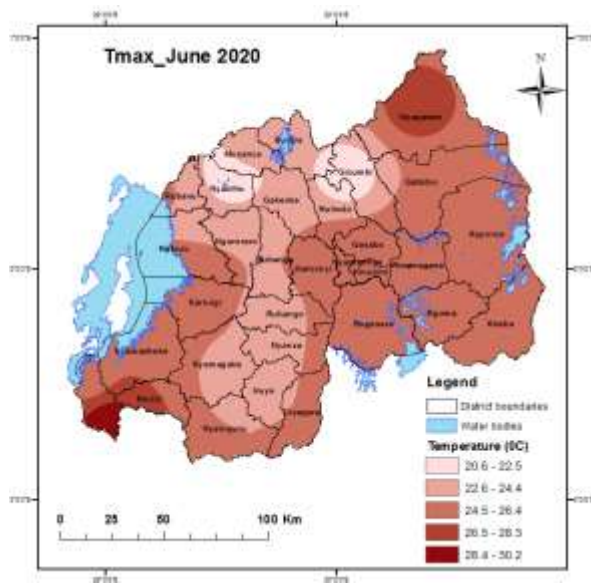
Map2: May Long term mean rainfall distribution



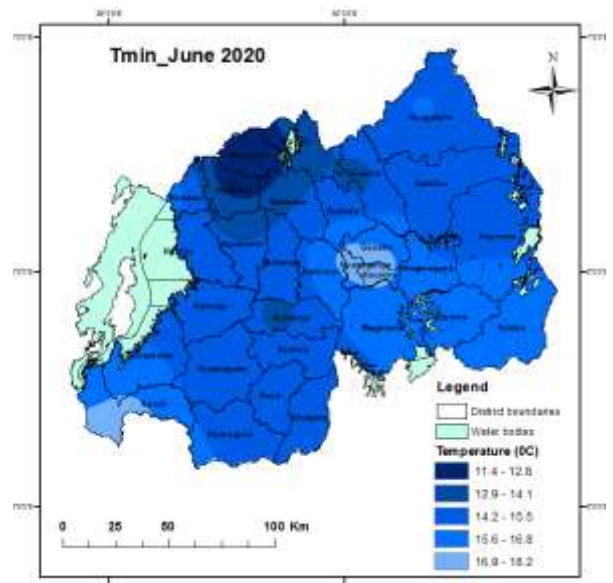
3.3 Temperature analysis

The lowest value of maximum temperature was 20.6°C which was observed in the Northern Province at Gicumbi weather station. The highest value of maximum temperature was observed in the South Western region at Bugarama station with 30.2°C.

The mean minimum temperature, was ranged between 11.4 at Musanze station which is the lowest and 18.2°C at Bugarama station. The Northern and Southern Provinces were cooler compared to the Eastern, Central regions and Western Provinces of the country (Map 3 and 4).



Map3: June Maximum Temperature



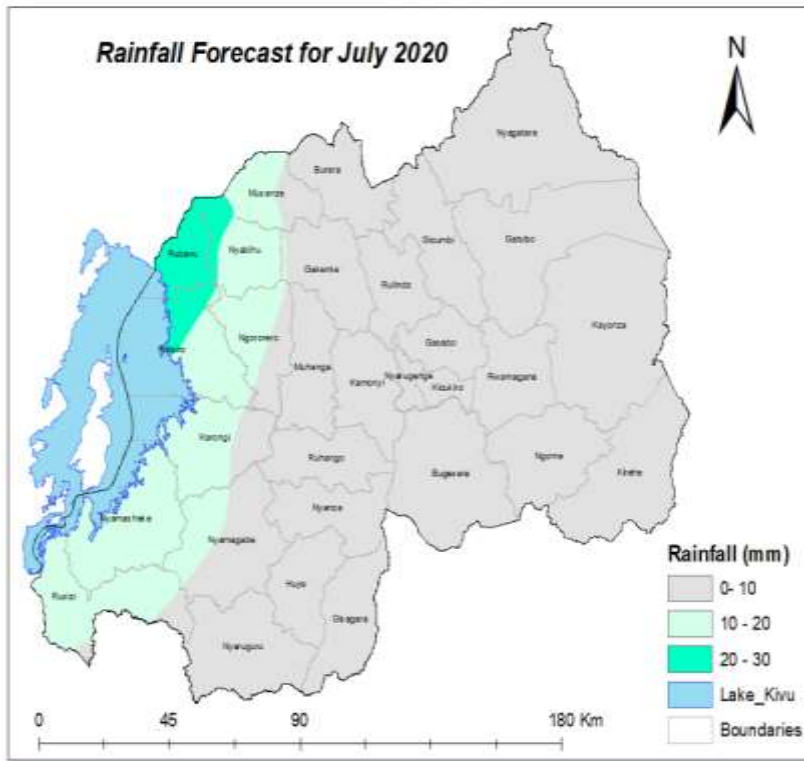
Map4: June Minimum Temperature

4. Soil Moisture Index (MI)

Comparing the soil moisture of May and June 2020, it is observed that the soil moisture was decreased during the month of June as a result of dry weather conditions observed over some parts the country during June 2020. The reduced soil moisture is expected to continue in July 2020, as results of expected persistent dry conditions within the forecasted period.



5. Rainfall forecast for July 2020



Map 5: Rainfall prediction for July 2020

Rainfall expected in the month of July 2020 will range between 0 and 30mm countrywide. Spatial distribution shows that dry conditions with sunny interval will dominate over most parts of the country. Rainfall ranging between 20 and 30mm is expected in Rubavu district and surrounding areas of Nyabihu and Rutsiro Districts.

6. IMPACTS ON SOCIO-ECONOMIC SECTORS

The socio-economic impacts associated with observed climatic conditions and the likely impact in the forecasted period are illustrated below:

6.1 Impacts of observed climate condition.

During the month of June 2020, the rainfall accumulation was slightly above the Long Term Mean (LTM) in Northern and Western Provinces while the rest parts of country including Eastern, Southern, South-Eastern (Amayaga) and Kigali city continued to experienced dry conditions increase the likelihood of poor crop, water, and pasture performance.

Light rain of 10 to 20mm is expected in remaining areas of Western Province and in some parts of Nyamagabe and Musanze Districts bordering Western province. The rainfall between 0 to 10mm is also expected in the remaining bigger part of the country, which covers central, eastern, southern and northern parts. Rainy days will be very few in many parts of the country with maximum number of about 4 days in the month of July especially over Western Province.

The rainfall expected in the month of July 2020 will be within the range of July Long Term Average over the whole country. The Long Term Average range for July is normally between 0mm and 30mm across the country.



6.2 Potential likely impacts for the July 2020.

Considering that the month of July is one of the driest months contributing to the dry season of June to August, the increased water stress, reduced performance in crop and pasture conditions and water resource availability is expected. The drier areas over Eastern, South-eastern (Amayaga) and Central plateau of the country should be closely monitored.

N.B: This forecast should be used in conjunction with the Six hours, Daily (24-hour), Three (3), Five (5) Seven (7) and 10 days forecasts issued by the Rwanda Meteorology Agency (Meteo Rwanda).