



**Highlights:**

- **The cumulative rainfall** for dekad2\_December\_2017 was below normal except isolated cases of extreme southeast and northwest at Ngoma and Rubavu stations respectively where the records show an above normal situation.
- **The soil moisture index shows a decrease** in moisture content country wide due to shift of the ICTZ going south
- **The rainfall during dekad3 December\_2017 is expected to be marked with transition period of dry days at the beginning and wet days towards its end** for the whole country expect the highlands of the western side which will receive some more little rains

**I. Introduction**

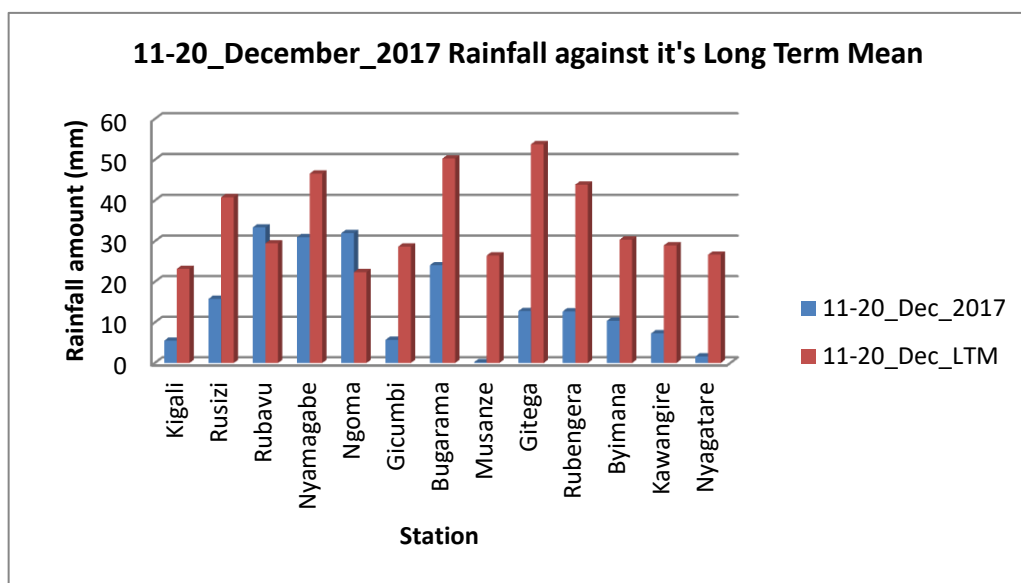
The second dekad of December\_2017 shows a below normal except isolated cases of extreme southeast and northwest at Ngoma and Rubavu stations respectively where the records show an above normal situation; this deficit is due to shift of the ICTZ going and weak trade winds to trigger rains.

a) The table and histogram below indicates the rainfall recorded during dekad2 December\_2017:

**Cumulative rainfall (in mm) recorded at different stations**

Station	11-20_Dec_2017	11-20_Dec_LTM
Kigali	5.5	23.2
Rusizi (Kamembe)	15.8	40.8
Rubavu (Gisenyi)	33.4	29.5
Nyamagabe (Gikongoro)	31.0	46.6
Ngoma (Kibungo)	32.0	22.4
Gicumbi (Byumba)	5.7	28.7
Bugarama	24.1	50.3
Musanze (Ruhengeri)	0.2	26.5
Gitega	12.8	53.8
Rubengera	12.7	43.9
Byimana	10.4	30.4
Kawangire	7.3	29.0
Nyagatare	1.6	26.7

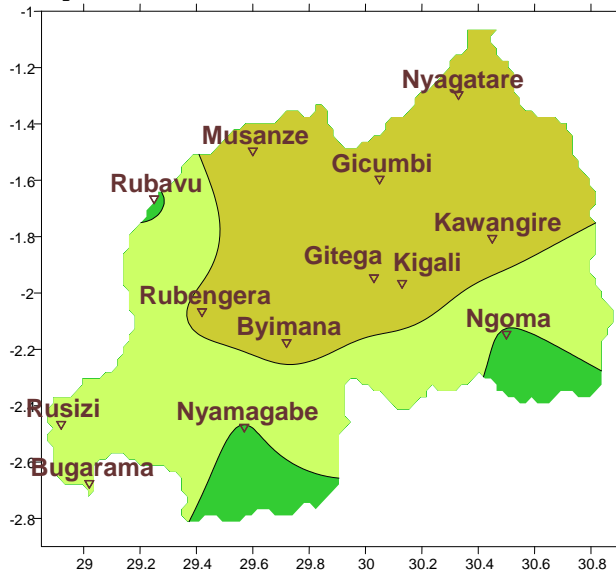
*Table1*



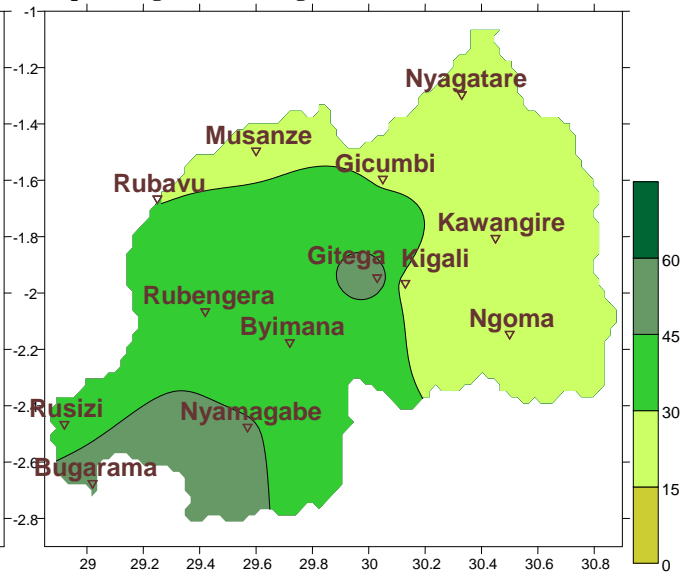
*Plot1*

- b) **Rainfall analysis:** The maps “Map 1 and 2” below show the cumulative rainfall recorded during dekad2\_December\_2017 and the LTM cumulative rainfall for the same period. The maps “map 3 and 4” show the cumulative rainfall recorded during dekad1\_December\_2017 and the LTM cumulative rainfall for the same period.

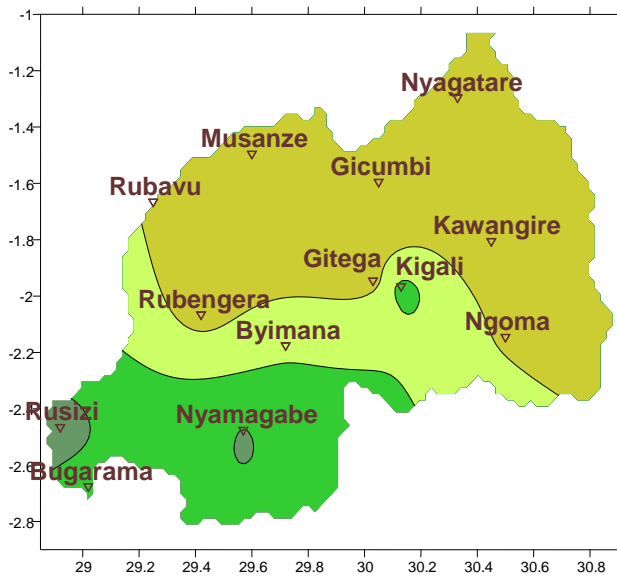
**Map1: Total Rainfall (mm): dekad2\_Dec\_2017**



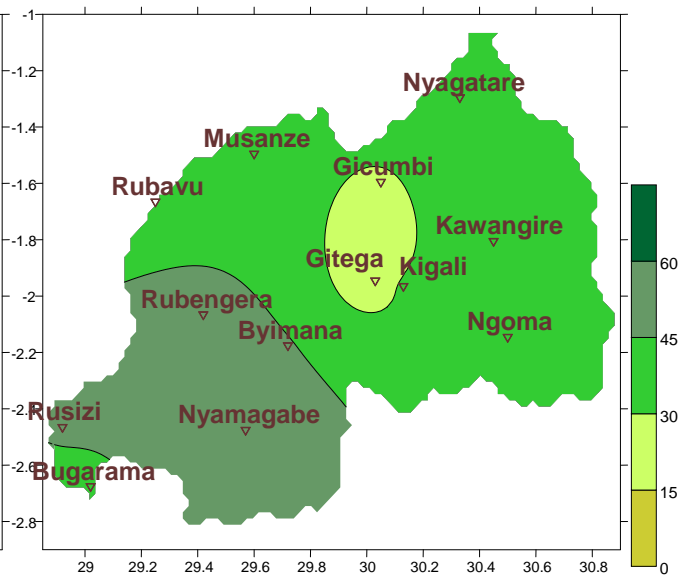
**Map2: Long Term Average Rainfall (mm): dekad2\_Dec\_LTM**



**Map1: Total Rainfall (mm): dekad1\_Dec\_2017**



**Map2: Long Term Average Rainfall (mm): dekad1\_Dec\_LTM**

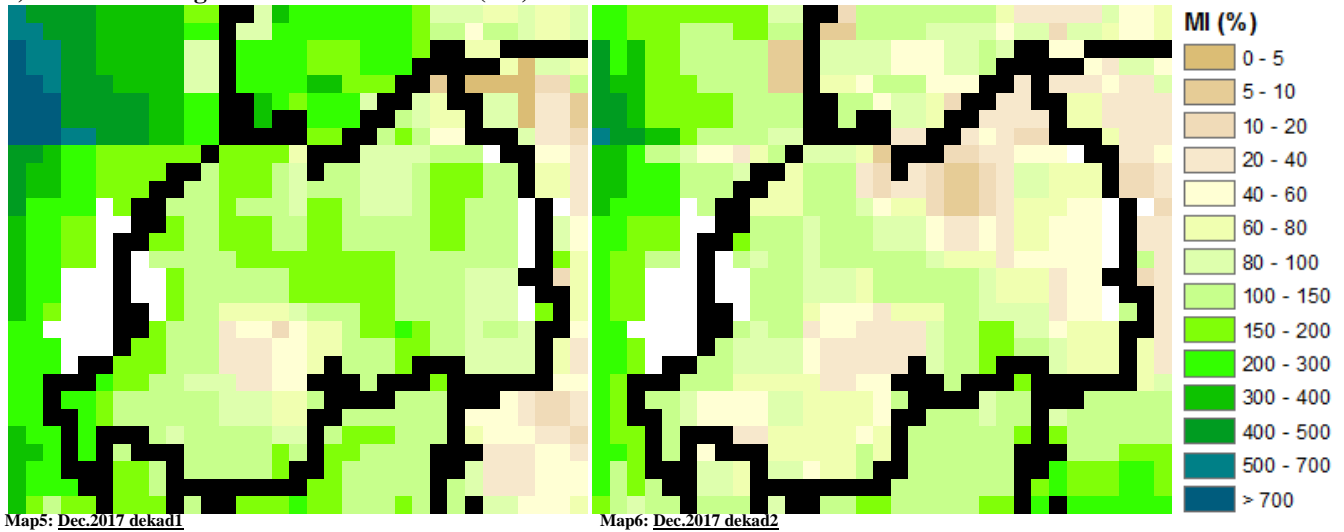


## II. Detailed observed rainfall during the dekad2\_December\_2017

The second dekad of December\_2017 shows a below normal except isolated cases of extreme southeast and northwest at Ngoma and Rubavu stations respectively where the records show an above normal situation; this deficit is due to shift of the ICTZ going; we also observe the northern part being drier than the rest (especially the northeast) for the 2 dekads due to the weakening of trade winds that resulted in no rain over most parts (see **Map1&2** and **Table1**). The same reason applies; for the shifting of the ITCZ; the rains were favoring the south during dekad1\_Sptember\_2017 as compared to the LTM (Long Term Mean; see **Map1&2** and **Table1**)

### III. Agricultural impact.

#### a) Satellite images: Soil Moisture Index (MI)



During dekad2 of December\_2017; the satellite derived soil moisture index shows a decrease in soil moisture content over the country due to shift of the ICTZ going south that caused little rains over the country(see **Map 5&6**)

#### b) Rainfall forecast for dekad3 of December\_2017

We expect rains during dekad3 of December\_2017 towards its end especially over the region of the Congo-Nile ridge.

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