



Highlights:

- **The cumulative rainfall** for December 2017 we observe **deficit in rainfall amount** at most of representing stations except the neighbouring of the Nyungwe Forest (in the south west) where rainfall has been observed to be in the normal range of the LTM (Long Term Mean);
- **Soil moisture content** has decreased as we were going towards the rain cessation of the SOND (September to December) season over most parts of the country but the soil is again recovering from dry conditions to wet.
- We expect **the north and west and southwest to have more rain than the rest of the country; and the spatial distribution to range in the LTM category**

I. Introduction

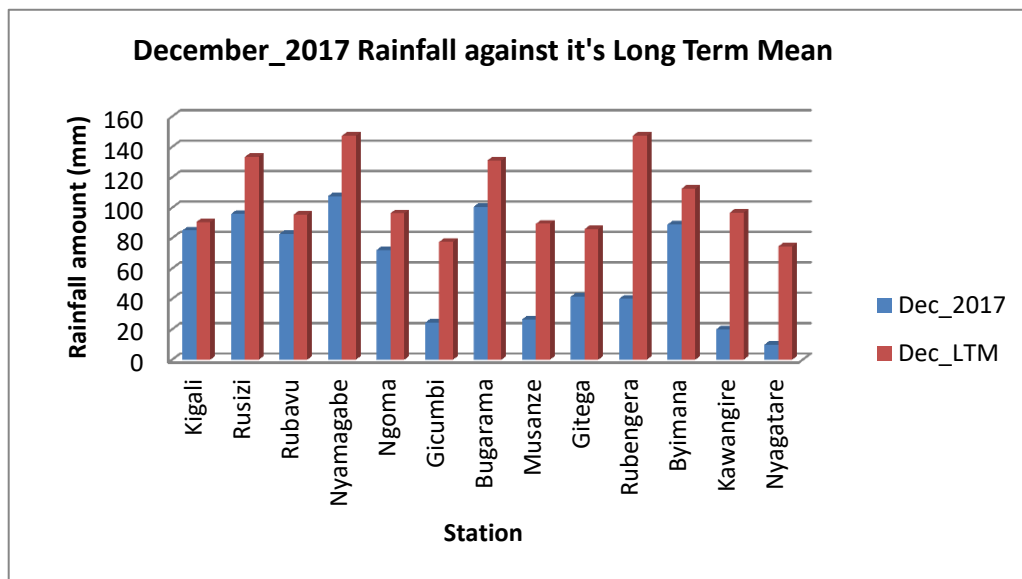
Most of the representing stations within the country during the December 2017 were ranging in the below normal range compared to what has been observed (LTM). We observe this deficit in rainfall amount at most of representing stations except the neighboring of the Nyungwe Forest (in the south west) where rainfall has been observed to be in the normal range of the LTM.

a) The table and histogram below indicates the rainfall recorded during dekad2 December_2017:

Cumulative rainfall (in mm) recorded at different stations

Station	Dec_2017	Dec_LTM
Kigali	85.1	90.6
Rusizi (Kamembe)	95.9	133.5
Rubavu (Gisenyi)	82.8	95.4
Nyamagabe (Gikongoro)	107.6	147.4
Ngoma (Kibungo)	72.2	96.4
Gicumbi (Byumba)	24.4	77.5
Bugarama	100.7	131.2
Musanze (Ruhengeri)	26.6	89.5
Gitega	41.5	85.9
Rubengera	40.1	147.5
Byimana	89.0	112.5
Kawangire	19.9	96.8
Nyagatare	10.0	74.5

Table1

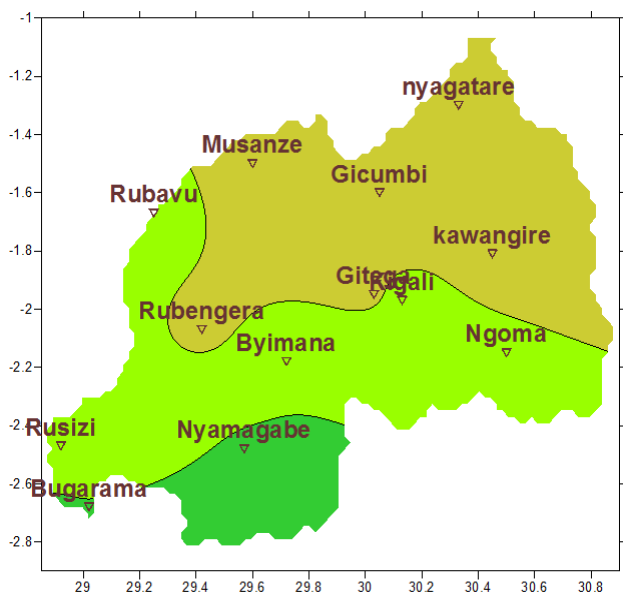


Plot1

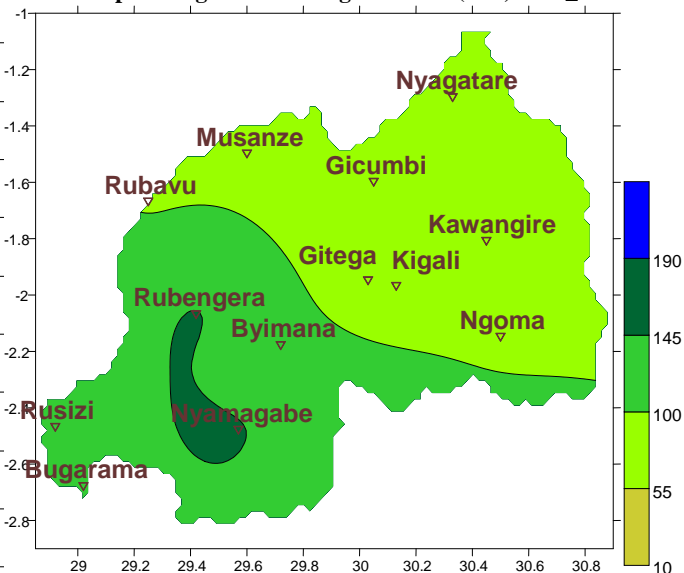
b) **Rainfall analysis:** The maps “**Map 1 and 2**” below show the cumulative rainfall recorded during December_2017 and the cumulative rainfall for the same period.

The maps “**map 3 and 4**” show the cumulative rainfall recorded during November_2017 and the cumulative rainfall for the same period

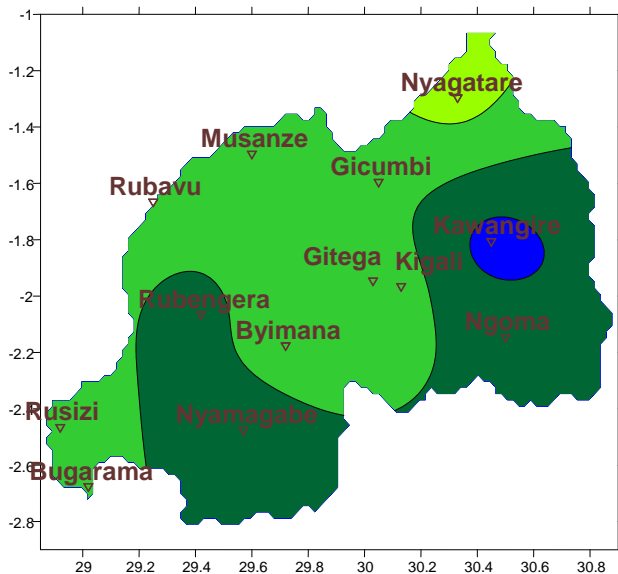
Map1: Total Rainfall (mm): Dec_2017



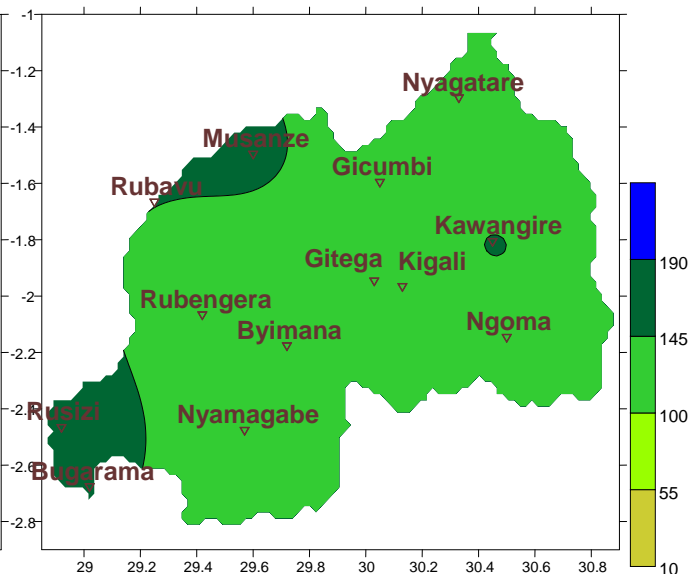
Map2: Long Term Average Rainfall (mm): Dec_LTM



Map3: Total Rainfall (mm): Nov_2017



Map4: Long Term Average Rainfall (mm): Nov_LTM

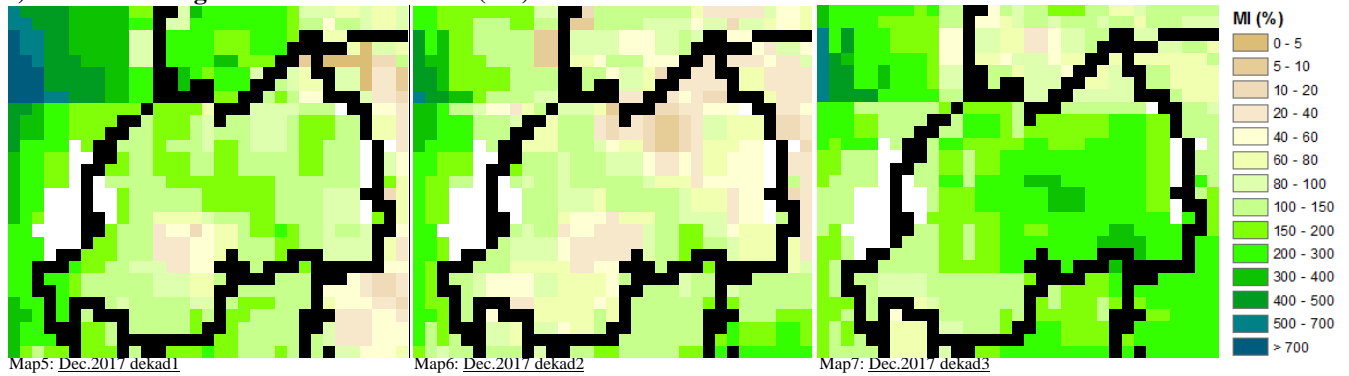


II. Detailed observed rainfall during December 2017

The cumulative rainfall amount during November_2017; all the representing stations within the country were ranging in the normal-to-above in comparison with the LTM. We observe more rainfall amount over localized places of the central-east towards south-east and the south-western parts of Rwanda to have high values of rainfall compared with LTM (see **Map3&4**). For the cumulative rainfall amount during December_2017; all the representing stations within the country were ranging in the below normal range compared to what has been observed within the last 3 decades (LTM). We observe this deficit in rainfall amount at most of representing stations except the neighboring of the Nyungwe Forest (in the south west) where rainfall has been observed to be in the normal range of the LTM (see **Map1&2** and **Table1**)

III. Agricultural impact.

a) Satellite images: Soil Moisture Index (MI)



Within the 3rd dekad of December; we observe high values of soil moisture over a wide part of the country; because of moving from dry conditions (rain cessation) to a transition of rainy conditions spreading country wide (see **Map5, 6&7**): recovery of wet soil conditions capable to get along well with a large variety of crops (see **Map7**) and with the prevailing wet conditions we expect for first two dekads of January; we can say that the soil will be wetted enough

b) Rainfall forecast for January 2018

January 2018; we expect rainy conditions to cover the whole country and intensity to be more over the south-westwards

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)