



Highlights:

- **The cumulative rainfall** for December decade two 2016 was enhanced in some localized places in the central and southern parts of the country. The rest of the country recorded suppressed rainfall which was less compared to the long term mean during the second decade of December.
- **Decreased soil moisture** was observed over most parts of the country which was littler than the first dekad of this December except southwestern part of the country.
- The rainfall during third decade is expected to **reduce over most places**.

I. Introduction

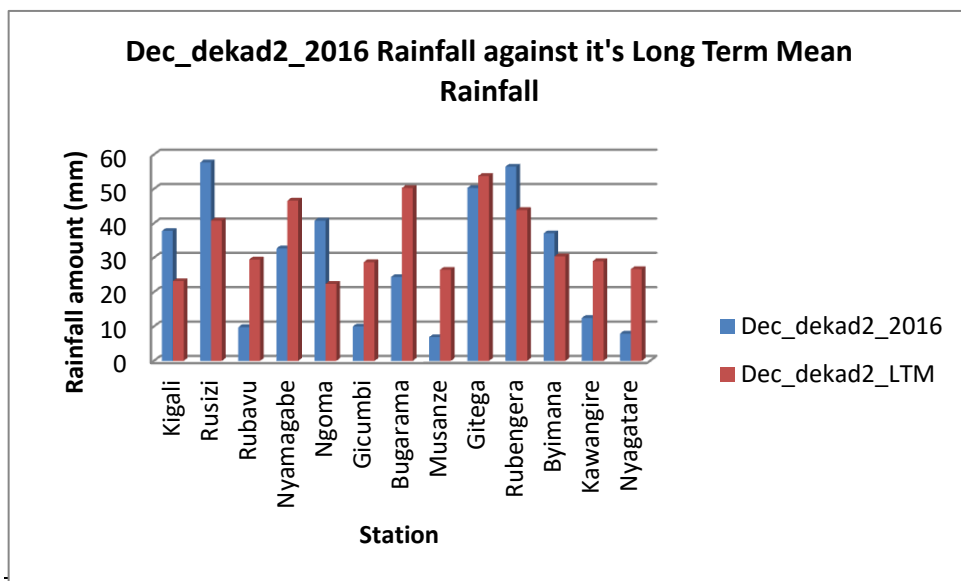
Most parts of the country especially the north during the second dekad of December 2016 recorded rainfall which was generally below long term mean (LTM); except station in the southern part of Rwanda which recorded slightly high amount of rainfall and the system was more influenced by convergence of the south-westerlies and south-easterlies that yielded influx of moisture within the region.

a) The table and histogram below indicates the rainfall recorded during the second dekad of December 2016:

Cumulative rainfall (in mm) recorded at different stations

Station	Dec_d ekad2_2016	Dec_de kad2_L TM
Kigali	37.8	23.2
Rusizi (Kamembe)	57.7	40.8
Rubavu (Gisenyi)	9.8	29.5
Nyamagabe (Gikongoro)	32.7	46.6
Ngoma (Kibungo)	40.8	22.4
Gicumbi (Byumba)	10	28.7
Bugarama	24.4	50.3
Musanze (Ruhengeri)	6.9	26.5
Gitega	50.3	53.8
Rubengera	56.5	43.9
Byimana	37.1	30.4
Kawangire	12.5	29
Nyagatare	7.9	26.7

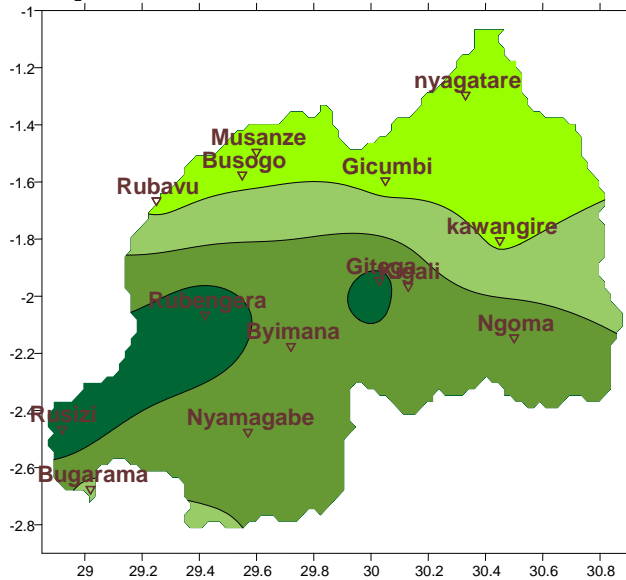
Table1



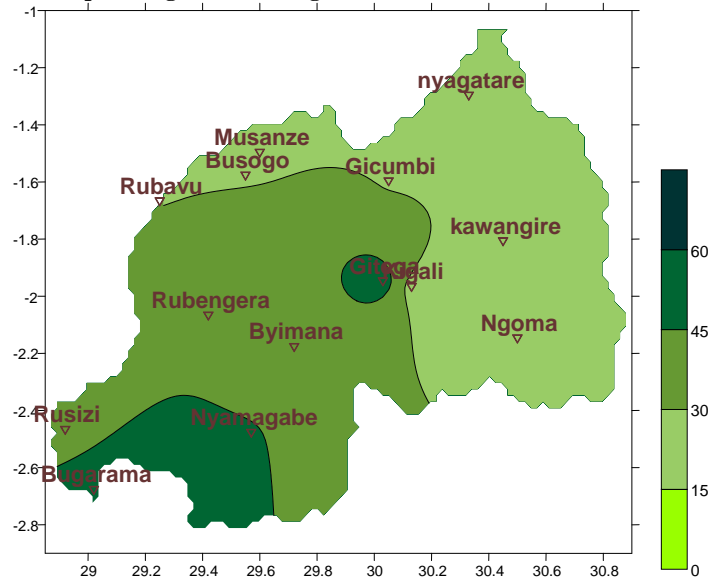
Plot1

- b) **Rainfall analysis:** The maps “**Map 1 and 2**” below show the cumulative rainfall recorded during the second dekad of December 2016 and the long term mean (LTM) of cumulative rainfall during the same dekad. The maps “**map 3 and 4**” show the cumulative rainfall recorded during the first dekad of December 2016 and the LTM of cumulative rainfall during the same dekad.

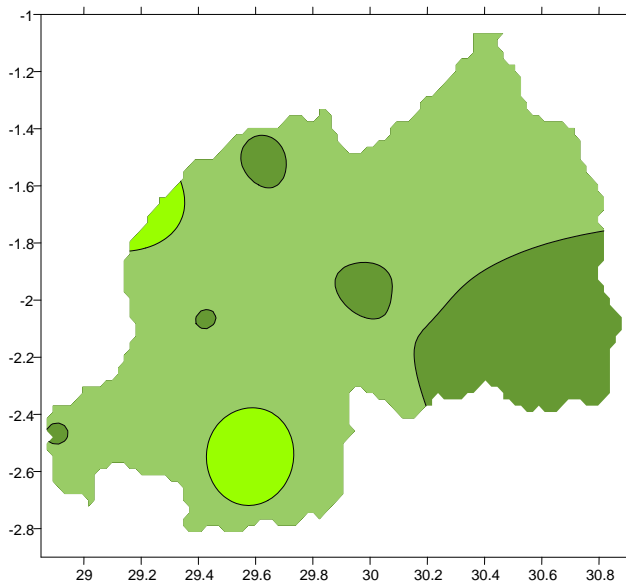
Map1: Total Rainfall (mm): Dec_dekad2_2016



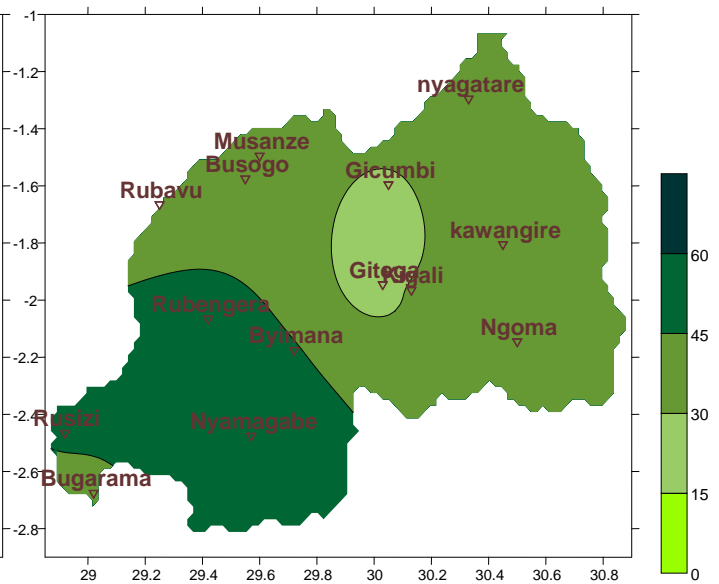
Map2: Long Term Average Rainfall (mm): Dec_dekad2_LTM



Map3: Total Rainfall (mm): Dec_dekad1_2016



Map4: Long Term Average Rainfall (mm): Dec_dekad1_LTM



II. Detailed observed rainfall during the second dekad of December 2016

Cumulative rainfall for December_dekad2_2016 was slightly enhanced in the south and suppressed in the north (see **Map1&2**) and the cumulative rainfall for the December_dekad1_2016 was wet over most parts of the country at approximately equal distribution (see **Map3&4**)

a) Eastern Province

Except the southern part at Ngoma station which recorded 40.8mm of rainfall; the rest of the stations within the area received below rainfall amount compared to the LTM (see **Table1** and **Map1&2**)

b) Northern Province

All representative stations recorded below normal rainfall amount compared to the LTM (see **Table1** and **Map1&2**)

c) Southern Province

Representative stations in this Province recorded rainfall amount that is within the range of LTM (see **Table1** and **Map1&2**)

d) Western Province

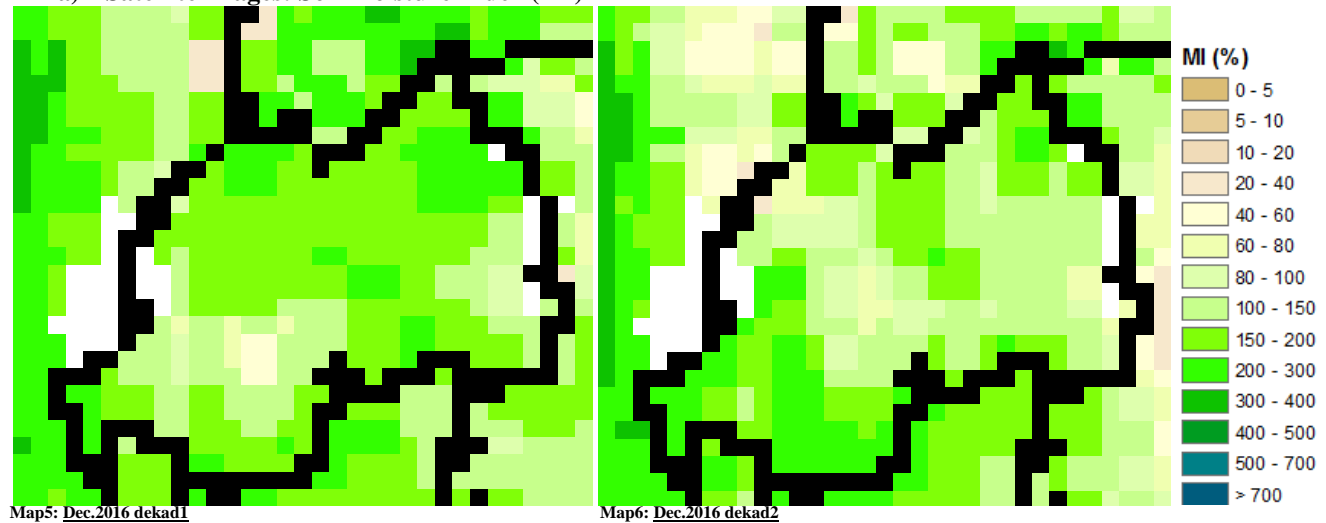
Except the northwest at Gisenyi station which recorded 9.8mm of rainfall; other stations recorded normal to above compared to the LTM (see **Table1** and **Map1&2**)

e) **Kigali City**

The central part of the country which is represented by Kigali and Gitega stations recorded the same weather pattern we normally observe during the second dekad in December as indicated by comparable rainfall recorded amounts during this dekad(see **Table1** and **Map1&2**)

III. Agricultural impact.

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



During the 2nd dekad of December 2016 the moisture reduced as a result of reduction in rainfall especially over the north and central parts of the country which is evident in **Map 6**. The 1st dekad of December 2016 indicated by **Map 5** was wet compared to the following dekad; i.e. the 2nd December 2016 since there was rainfall depression.

The distribution of rains during the 3rd dekad is expected to reduce over most parts the country. Farmers are advised to put in place supplementary measures which will support their farming practices.

Rainfall forecast for December_dekad3_2016

We expect rain the distribution of rains during the 3rd dekad is expected to reduce across many parts the country.

Kigali City; Will experience cloudy conditions with slightly light rain.

Eastern Region; Will experience cloudy conditions with slightly light rain.

Western Region; Will experience light rainfall conditions over most parts of the region.

Northern region; Will experience cloudy conditions to be likely over than rainy conditions over most parts of the region.

Southern Region; The region is expected to experience depressed rainfall activities throughout the period with slightly enhanced conditions over south western parts of the region.

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)