



Highlights:

- **The cumulative rainfall** for December 2016 was above normal in some localized of east and northern parts of the country. The rest of the country recorded rainfall within the normal range.
- **Satellite derived soil moisture index shows a general decrease** from Dekad1 (1st to 10th), Dekad2 (11th to 20th) to Dekad3 (21st to 31st) of December_2016
- The rainfall during January 2017 is expected to **reduce in most places** of the country.

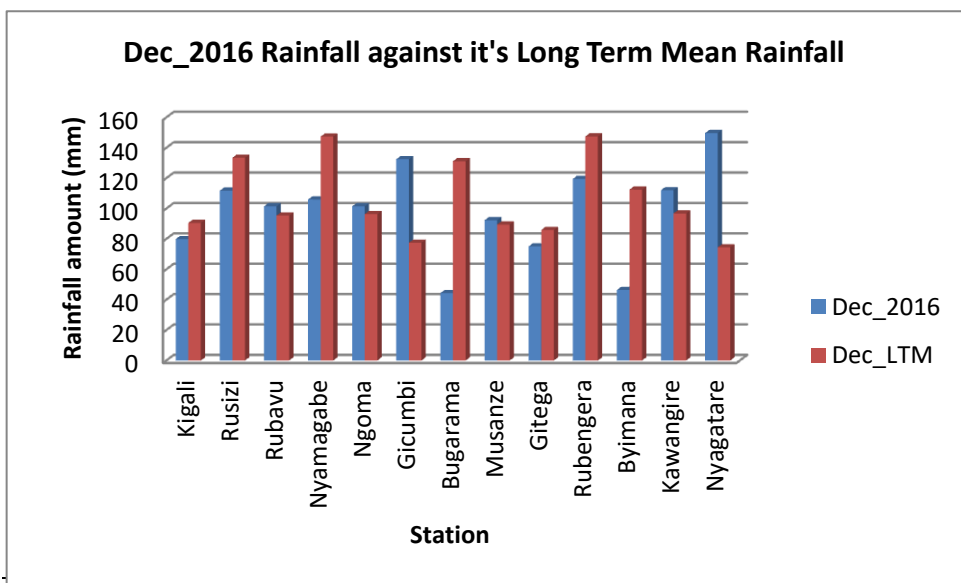
I. Introduction

Parts of the country especially the Northern Province (Gicumbi and Musanze Districts) and Eastern Province (Nyagatare; Kayonza and Ngoma Districts) during December 2016 recorded rainfall which was slightly above the long term mean (LTM); while the Southern Province of the country which recorded slightly below LTM.

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

Cumulative rainfall (in mm) recorded at different stations

Station	Dec_2016	Dec_LTM
Kigali	79.9	90.6
Rusizi (Kamembe)	111.8	133.5
Rubavu (Gisenyi)	101.5	95.4
Nyamagabe (Gikongoro)	106	147.4
Ngoma (Kibungo)	101.5	96.4
Gicumbi (Byumba)	132.5	77.5
Bugarama	44.4	131.2
Musanze (Ruhengeri)	92.3	89.5
Gitega	75.1	85.9
Rubengera	119.5	147.5
Byimana	46.4	112.5
Kawangire	112.1	96.8
Nyagatare	149.7	74.5

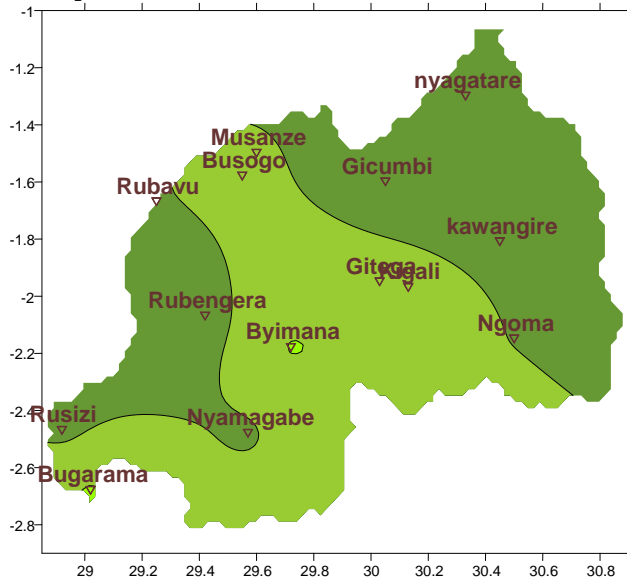


Plot1

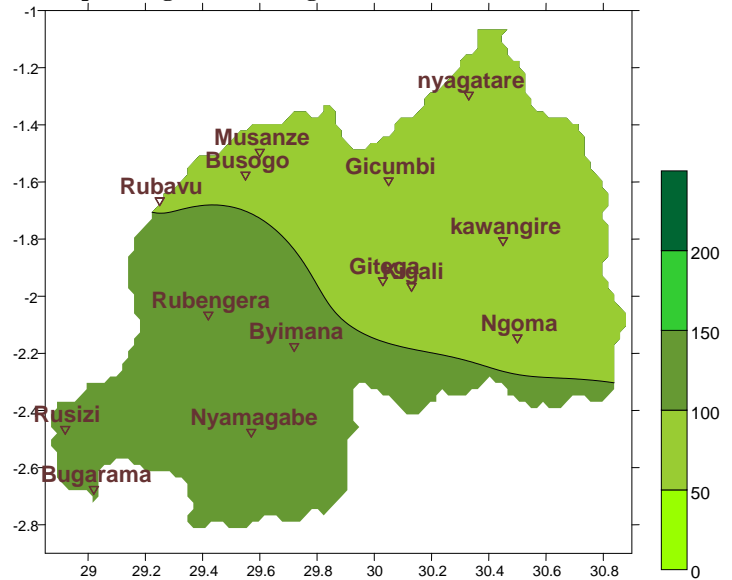
Table1

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

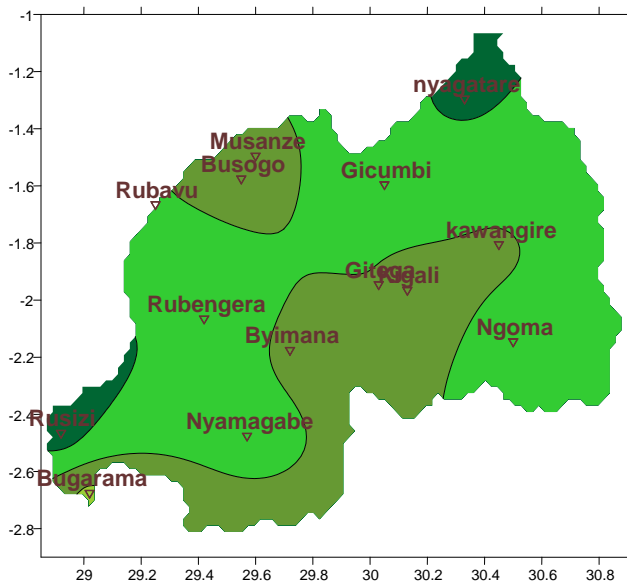
Map1: Total Rainfall (mm): Dec_2016



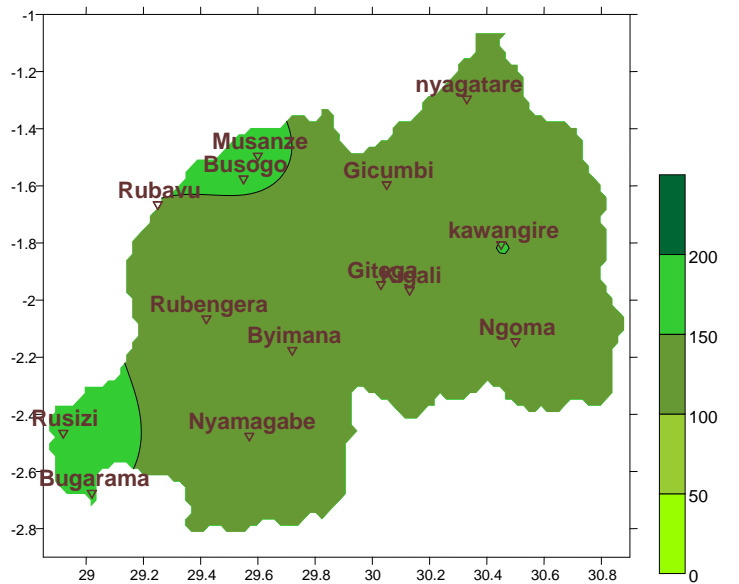
Map2: Long Term Average Rainfall (mm): Dec_LTM



Map3: Total Rainfall (mm): Nov_2016



Map4: Long Term Average Rainfall (mm): Nov_LTM



II. Detailed observed rainfall during the December 2016

Cumulative rainfall for December_2016 was slightly enhanced in the east and suppressed in the south (see **Map1&2**) for the month of November_2016 the cumulative rainfall was wet over most parts of the country especially east and west (see **Map3&4**). The central and southern parts of the country records were within the range of LTM (100mm) during the month of November.

a) Eastern Province

All representing stations recorded high rainfall amount that is above normal compared to the LTM (see **Table1** and **Map1&2**); with Nyagatare as 149.7mm of rainfall as the highest record within the whole country during December_2016

b) Northern Province

Most of the stations recorded rainfall which was within the range of LTM (100mm) except Gicumbi station which recorded slightly high amount of rainfall (132.5mm; see **Table1** and **Map1&2**)

c) Southern Province

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

d) Western Province

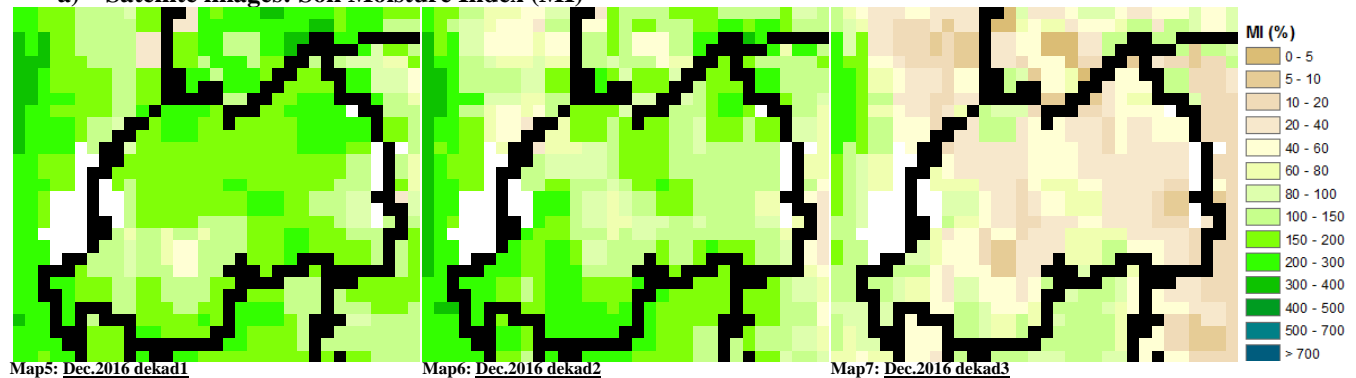
The stations in the Western Province recorded rainfall which was within the LTM range (140mm; see **Table1** and **Map1&2**)

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 December (see **Table1** and **Map1&2**)

III. Agricultural impact.

a) Satellite images: Soil Moisture Index (MI)



During December 2016 the satellite derived moisture index was reduced as a result of reduced widespread of rainfall across the country (see **Map 5, 6&7**; the 1st dekad of December 2016 indicated by “**Map 5**” was wet compared to the two following dekads (2&3); where the 2nd of December 2016 was slightly moist except the southern part highly moist hence favorable conditions for the crops (see **Map6**)

The distribution of rains during January 2017 is expected to continue reducing comparing to what was observed in December_2016

Farmers are advised to put in place supplementary measures which will support their farming practices.

Rainfall forecast for January_2017

We expect reduce rain distribution across many parts of the country during 2017.

Kigali City; Will experience cloudy conditions with slightly light rain within the first dekad of January_2017

Eastern Region; Will experience cloudy conditions with slightly light rain within the first dekad of January_2017.

Western Region; Will experience cloudy conditions to be likely over than rainy 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 month.

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)

Approved by

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