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## NATURAL

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Bulletin $\mathbf{N}^{\circ} \mathbf{3 1 / 2 0 1 6 :}$
$1^{\text {st }}-10^{\text {th }}$ November 2016
Issued on $12^{\text {th }}$ November 2016

## Highlights:

- Cumulative rainfall for the first dekad of November 2016 was within the mean range in many parts of the country;
- An increase of soil moisture content was observed in all parts of the country especially the Northern Province.
- Rainfall at normal distribution is expected for next coming ten days


## I. Introduction

a) The comparison between rainfall recorded in "November_dekad1_2016" and it's long-term mean (LTM) value at each station, is shown below:

Cumulative rainfall (in mm) recorded at different stations

| Station | Nov_d <br> ekad1 <br> $\mathbf{2 0 1 6}$ | LTM__ <br> Nov_de <br> kad1 |
| :--- | ---: | ---: |
| Kigali | 37.7 | 43.6 |
| Rusizi <br> (Kamembe) | 42.1 | 63.4 |
| Rubavu <br> (Gisenyi) | 34.1 | 56.6 |
| Nyamagabe <br> (Gikongoro) | 81.3 | 40.5 |
| Ngoma <br> (Kibungo) | 59.8 | 39.6 |
| Gicumbi <br> (Byumba) | 71.8 | 58.5 |
| Busogo | 43.5 | 56.8 |
| Bugarama | 24.5 | 33.7 |
| Musanze <br> (Ruhengeri) | 43.5 | 56.8 |
| Gitega | 23.6 | 33.4 |
| Rubengera | 65.6 | 33.3 |
| Byimana | 28.6 | 43 |
| Kawangire | 78.5 | 47.6 |
| Nyagatare | 71.3 | 47.6 |
| Tablel |  |  |



PlotI
b) Rainfall analysis: The next maps show the rainfall recorded during specific period monitored with the same dekad at long term average (mean)


Map2: Long Term Average Rainfall (mm): Nov_dekad1


Map4: Long Term Average Rainfall (mm): Oct_dekad3


## II. Detailed observed rainfall during the $1^{\text {st }}$ dekad of November 2016

Cumulative rainfall for the first dekad of November 2016 was within the mean range in many parts of the country. The southern part which had little amount of rain in the last dekad of October, received rain that was high compared to other representation stations within the country; whilst the northern part still have rainfall at normal range (see Map1,2, 3\&4):

## a) Eastern Province

All representing stations received rain in the above rainfall range compared to the climatology of this Province, with the highest values in the north at Stations of Kawangire ( 78.5 mm ) and Nyagatare ( 71.3 mm )

## b) Northern Province

All the stations; in this Province; are approximately at normal mean range; i.e. this Province lies close to the climatic range (see Map1\&2); with Gicumbi Station as the highest recorded in this Province with 71.8 mm of rainfall
c) Southern Province

The rainfall pattern were high in the south-west and in the mean range elsewhere within the Province; with 81.3 mm of rainfall at Nyamagabe Station (the highest amount recorded in the country for the past 10 days of November)

## d) Western Province

Though Rusizi and Rubavu Stations represent a decline in receiving a high amount of rainfall, the overall analysis shows a well distributed rainfall amount that is considered to be in the mean range values of rainfall
e) Kigali Region

The central part with 2 representatives stations Kigali and Gitega; received overall rainfall which lies also within the climatic range (see Table1 and Map1\&2)

## III. Agricultural impact.

a) Satellite images: Soil Moisture Index (MI)


Within the first 10-days of November, there was an enhanced rainfall that resulted in increase of the moisture content and vegetation cover over the whole Rwanda; especially in the northern part of the country (see Map5\&6)
The second dekad of November 2016; we expect continuation of rains across the country; Farmers are again advised to keep on harvesting rainwater to be used for irrigation.
b) Rainfall forecast for the $\mathbf{2}^{\text {nd }}$ dekad of November 2016

At some stations; we expect continuation of rains across the country that is normally distributed:
Kigali City; is expecting to experience alternatively wet and dry days which will be at normal range comparing to climatology.
Eastern Region; is expecting to experience rainfall activities across the whole region at normal range.
Western Region; is expecting moderate rains at normal to above range throughout the period.
Northern region; is expecting moderate rains at normal to above range throughout the period.
Southern Region; is expecting to experience rainfall activities throughout the period with expectation of high amount towards the southwestern part but at a normal range comparing to climatology.
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)

