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MINISTRY OF ENVIRONMENT
RWANDA METEOROLOGY AGENCY



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Summary

In the third Dekad (21-31) of December 2019, most parts of the country received moderate to heavy rainfall which was above the Long Term Mean (LTM) in most parts leaving Busogo station with below the LTM. In this dekad, high rainfall amount was recorded at Byimana station (210.5mm), Gitega received 165.2mm. While less rainfall was received at Gicumbi (25.5mm). Generally Southern, Western Province and Kigali City were wet compared to the other regions of the country. The temperature was in normal range. The maximum temperature ranged between 29.5°C in Bugarama and 22.0°C in Gicumbi. Minimum temperature ranged between 13.0°C at Busogo and 19.2°C at Bugarama stations.

1.0 Rainfall Pattern

This section provides the observed rainfall amount, rainy-days and available soil moisture for the third dekad of December, 2019.

1.1 Rainfall Amount

The total rainfall amount for the third dekad of December, 2019 is presented in figure 1. On a daily basis observation, moderate to heavy rains were recorded in most parts of Rwanda. The accumulation of rainfall in ten days ranged from 210.5mm to 25.5mm. The highest rainfall total was recorded at Byimana (210.5mm), Gitega (165.2mm), Nyamagabe (162.2mm) and Kigali-Aeroport (123mm). Gicumbi and Busogo received rainfall less than 30 mm.

The Southern province and Kigali City were wet compared to other parts of the country.

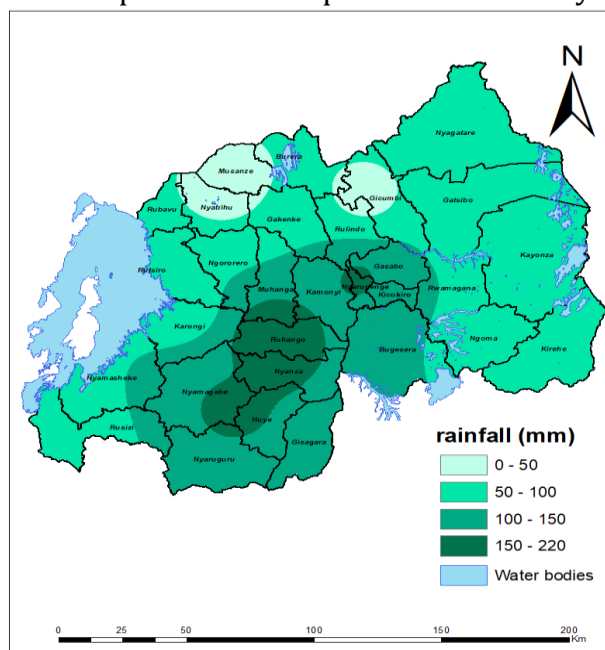


Figure 1: Rainfall amount

1.2 Rainfall climatology in the 3rd dekad

The rainfall climatology for the 3rd dekad of December is shown in figure 2 below, which indicates that rainfall usually range from 15.7mm to 56.5mm across the country. Comparing the current dekad and the Long Term Mean (LTM) for the same period, it was observed that rainfall in the 3rd dekad of December 2019 was above the LTM in most parts of the country leaving Busogo station with below normal compare to the Long Term Mean (LTM).

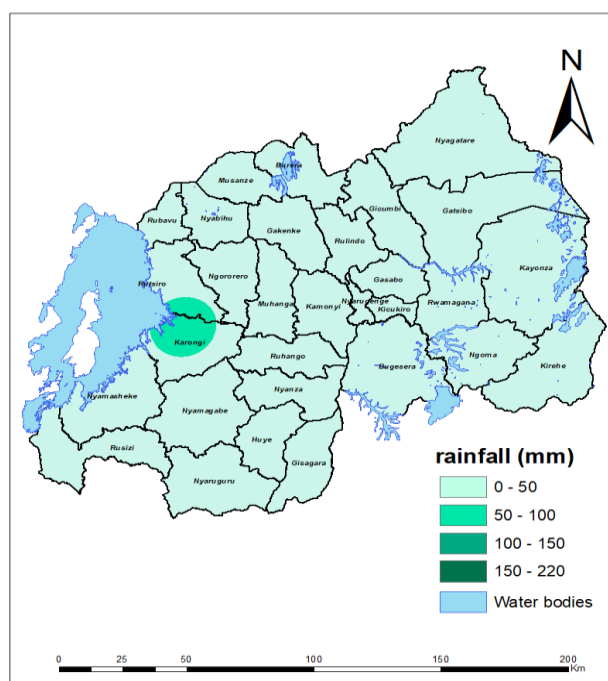


Figure 2: Rainfall distribution in long term

1.3. Number of Rain Days

Figure 3 shows the distribution of number of rain-days for the 3rd dekad of December 2019. A total of 3 to 8 days were observed across the country. It can be seen that most parts of the country had days ranged between 3 and 6 days of rainfall. A minimum of 3 day was observed at Gicumbi and Nyagatare . The maximum of 7 to 8 rainy days were received at Nyamagabe, Rubengera and Bugarama stations

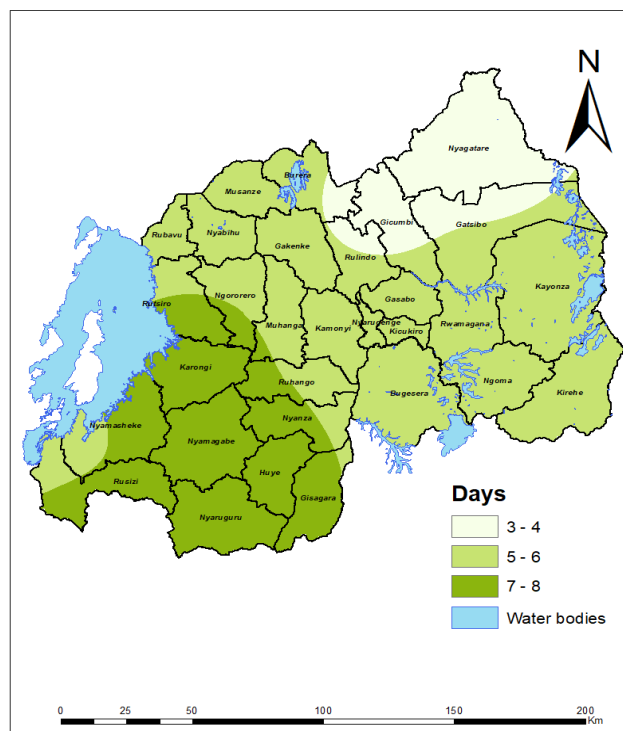


Figure 3: Rainy days

1.4 Soil moisture index



Figure 4: Soil Moisture Index

The distribution of available soil moisture across the country is shown in figure 4 above. Soil moisture increased in most parts of the country due to wet days experienced during this dekad. The expectation is that rain conditions are likely to decrease in the coming dekad hence leading to decrease of soil moisture across the country.

2.0 Temperature observation

The average of maximum and Minimum temperature across the country during the 3rd dekad is highlighted below in this section.

2.1 Maximum Temperature

Figure 5 below shows the actual mean maximum temperature distribution across the country which indicates that the Southwest, Kigali City and East provinces were warmer compared to Northern province and Southern province. However, in most parts of the country the maximum temperature ranged between 22.0 and 27.0°C with exception of Bugarama that recorded 29.5°C and Nyagatare that recorded 27.7°C.

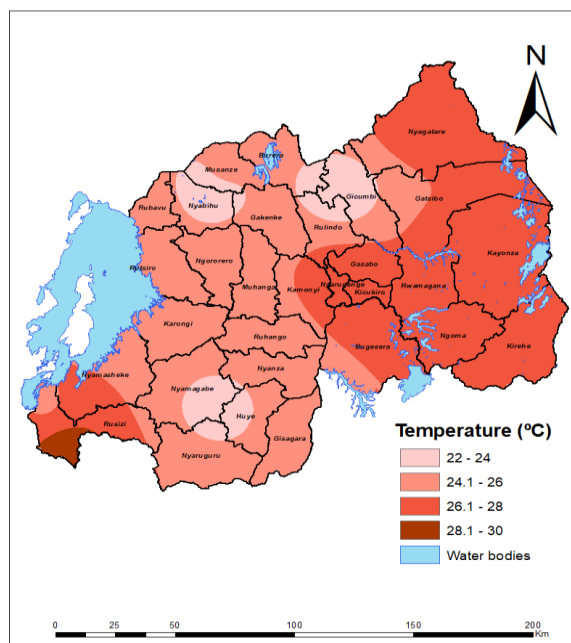


Figure 5: Mean Maximum Temperature

2.2 Minimum Temperature

The average minimum temperature across the country is shown in figure 6 below. The Northern region experienced temperature which were in the range of LTM with a tendency to be above. The minimum temperature ranged from 13.0 °C (Busogo) to 19.2°C (Bugarama).

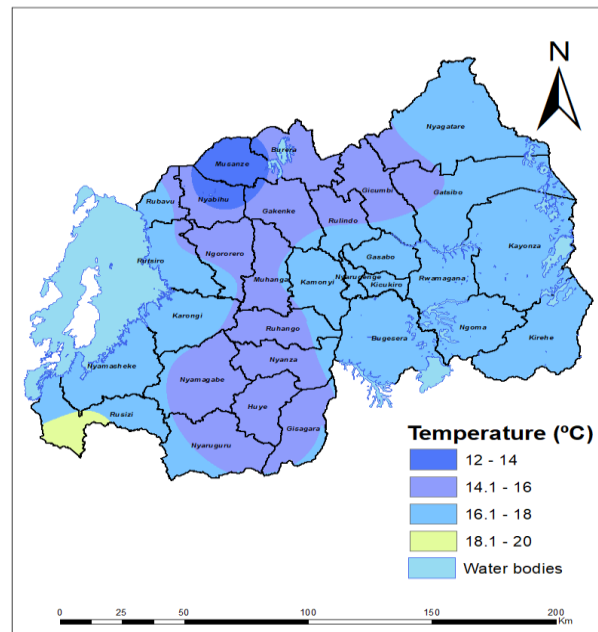


Figure 6: Mean Minimum Temperature

3.0 Weather Outlook and Agricultural for the 1st dekad (1-10) January, 2020.

3.1 Weather Outlook for the 1st dekad of January 2020.

Compare to the third dekad of December 2019 which was very wet; the first dekad of January will receive light rainfall activities due to the low level weak westerly wind flow and less contribution to moisture flux from Congo basin some part of the Southwestern and Northwestern regions are expected to receive more rainfall convergence of winds that led to the increase of moisture over Rwanda. Western province is expected to compare to other parts of the country.

3.2 Agricultural Activity/Advisories

The alternation of dry and wet conditions are expected in the 1st dekad of January 2020 from 1st to 10th, farmers are advised to work closely with Agriculture officers within their location. For more meteorological information you can visit Meteorwanda website: www.meteorwanda.gov.rw.