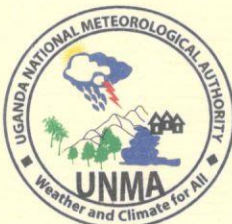


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UGANDA NATIONAL METEOROLOGICAL AUTHORITY

Ref: SCF/JJA/2020

26th May, 2020

THE SEASONAL RAINFALL OUTLOOK FOR JUNE TO AUGUST 2020 OVER UGANDA

1.0 OVERVIEW

The June, July and August forecast period is part of the dry season over most parts of South western, Central, Lake Victoria basin and parts of Eastern region but a continuation of rainy season for much of Northern Uganda. In Southern sector, it marks the end of the first rainfall season and is generally crops harvesting season.

It has been observed that the major physical conditions likely to influence the weather conditions over Uganda and the rest of the countries in the Greater Horn of African region for the forecast period of June to August 2020 are:

- i) The neutral state of the Indian Ocean Dipole (IOD) over the Indian Ocean;
- ii) The neutral state of El Niño-Southern Oscillation over tropical Pacific Ocean; and
- iii) The influence of regional circulation patterns, topographical features and large inland water bodies.

Based on the above considerations as well as details of the climatology of Uganda and scientific tools used for climate analysis and prediction, Uganda National Meteorological Authority (UNMA) has come up with the following detailed rainfall outlook:

Overall, there is an increased likelihood of **normal to above normal rainfall (enhanced rainfall) conditions** over the northern, north eastern and in most of the areas in eastern region, while the rest of the country is expected to experience **normal with tendency to below normal** rainfall conditions. For more details, refer to the map below:

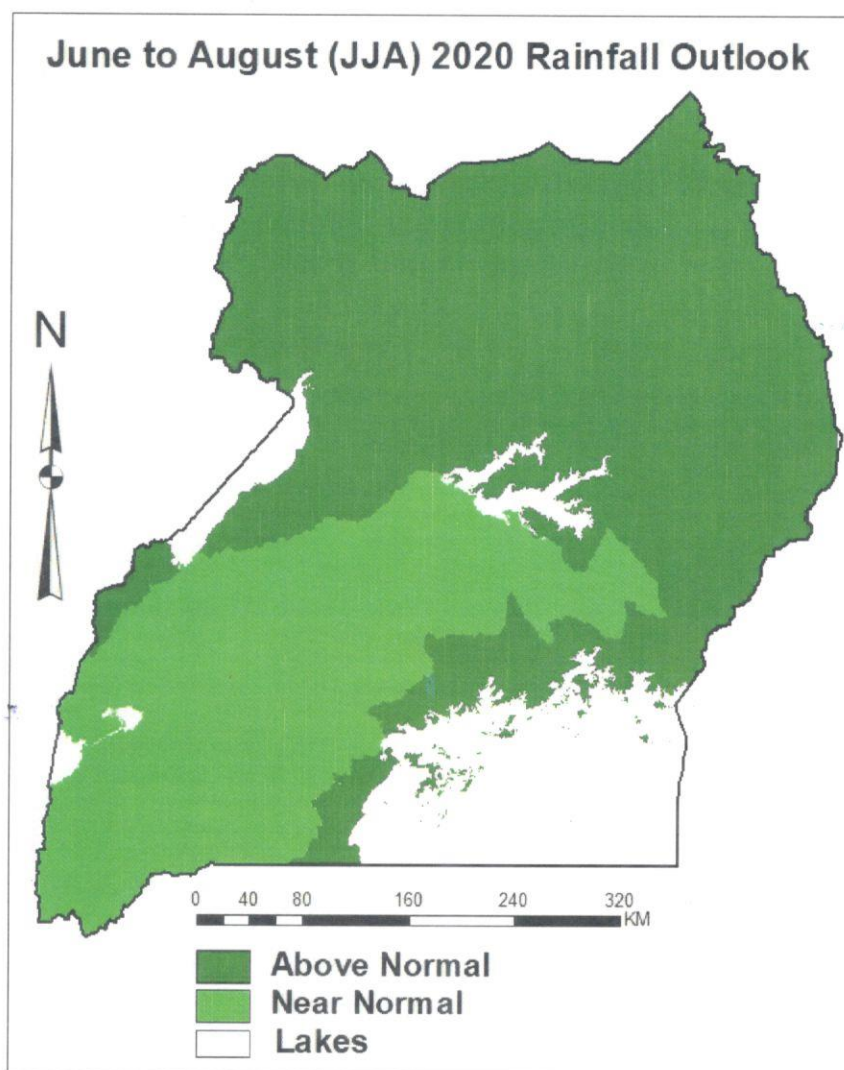


Fig1: A map of Uganda showing spatial distribution of rainfall for the season June to August (JJA), 2020.

2.0 THE BREAKDOWN OF THE FORECAST FOR EACH REGION

2.1.0 WESTERN REGION

2.1.1 Central Western (Bundibugyo, Ntoroko, Kabarole, Kyenjojo, Kyegegwa, Kamwenge, Masindi, Buliisa, Hoima, Kakumiro, Kagadi, Kikube and Kibaale) districts

This region has been experiencing wet conditions with a gradual reduction in rainfall activity. This situation is expected to persist up to around mid-June when dry conditions are expected to set in and continue till early /mid-July. Thereafter, occasional wet conditions will begin up to the end of the forecast period. Overall, **near normal (near average)** rainfall is expected to prevail over most parts of this region.

2.1.2 South Western (Kisoro, Kabale, Rubanda, Rukiga, Rukungiri, Kanungu, Ntungamo, Rwampara, Kazo, Mbarara, Kiruhura, Isingiro, Ibanda, Bushenyi, Buhweju, Mitooma, Sheema, Rubirizi, Kitagwenda and Kasese) districts

The rains being experienced in this region have been gradually reducing and this is likely to continue up to early/mid-June. Thereafter, dry conditions are expected to set in and continue up to mid/late July when isolated light showers are expected to set in up to the end of the season. Overall, **near normal (average)** with a tendency to below normal rainfall is expected to prevail over most parts of the region.

2.2.0 LAKE VICTORIA BASIN AND CENTRAL REGION

2.2.1 Northern and Southern parts of Central (Nakasongola, Luwero, Nakaseke, Kyankwanzi, Kiboga, Mubende, Kasanda, Sembabule, Lwengo, Lyantonde, and Rakai) districts.

The present rains being experienced over this region are gradually reducing, with dry conditions expected by mid-June up to mid-July. Thereafter, occasional rainfall punctuated by dry spells are expected to prevail and continue up to the end of the season. Overall, there are high chances of **near normal (close to average)** rainfall over most parts of the region.

2.2.2 Eastern parts of Central (Mukono, Buikwe, Kayunga, Buvuma) districts.

This region is currently experiencing moderate rains which are expected to continue up to early / mid June when relatively dry conditions are expected to set in and continue up to mid-July, eventually giving way to occasional rains up to the end of the forecast period. Overall, there is a high chance of **near normal (near average)** rainfall conditions with a slight tendency to **above normal** rainfall over most parts of the region.

2.2.3. Central and Western Lake Victoria Basin (Kalangala, Kampala, Wakiso, Masaka, Mpigi, Butambala, Kalungu, Bukomansimbi, Gomba, and Mityana) districts

The region has been experiencing occasional showers and thunderstorms, which are expected to continue up to end of early/Mid June, when relatively dry conditions are expected to set in and persist up to mid-July. Thereafter, occasional showers (wet conditions) and thunderstorms are expected to get established until the end of the season. Overall, **near normal (average)** rainfall with a slight tendency to **above normal** rainfall is expected to prevail over this region.

2.2.4 Eastern Lake Victoria Basin: (Jinja, Bugiri, Busia, Mayuge, Namayingo and Tororo) districts.

The region is still experiencing rainfall activity that is likely to continue up to early/mid-June when the relatively dry conditions are expected to set in and persist up to mid-July. Thereafter, occasional rains punctuated by dry spell are expected to be established until the end of the forecast period. Overall, **near normal (average)** rainfall with a tendency to above average is expected over most parts of the region.

2.3.0 EASTERN REGION

2.3.1 South Eastern: (Kamuli, Iganga, Luuka, Namutumba, Buyende, Kaliro, and Butaleja) districts

The current rains over this region are expected to continue up to mid-June when relatively dry conditions are expected to begin and prevail up to mid/late July. Thereafter, occasional outbreaks of showers and thunderstorms are expected until the end of the forecast period. Overall, there are high chances of this area receiving **normal (average) with a tendency to above normal (above average)** rainfall conditions.

2.3.2 Eastern Central: (Pallisa, Budaka, Kibuku, Mbale, Sironko, Manafwa, Bududa, Bulambuli, Kapchorwa, Kween, Bukwo, Bukedea, Kumi, Kaberamaido, Serere and Soroti) districts.

The rains being experienced over this region is expected to continue over this region up to mid-June, followed by relaxation of the rains up to early July. Thereafter, the rains are expected to get established until the end of the season. Overall, there are high chances of this region experiencing **near normal** with a tendency to **above normal rainfall**.

2.3.3 North Eastern: (Amuria, Katakwi, Nabilatuk, Karenga, Moroto, Kotido, Nakapiripirit, Abim, Napak, Amudat, and Kaabong) districts

The region is currently experiencing some rains with reduction expected from mid-June up to late-July, when light isolated showers are expected to pick up until the end of the season. Overall, **near normal** with a tendency to **above normal rainfall** conditions are expected over most parts of this region during the forecast period.

2.4.0 NORTHERN REGION

2.4.1 North Western (Moyo, Yumbe, Adjumani, Arua, Maracha, Zombo, Nebbi, Madi-Okolo, Obongi, Pakwach, Koboko) districts

The region is currently experiencing outbreak of showers and thunderstorms which is expected to continue until mid-June followed by relaxation up to mid-July. Thereafter, steady rains are expected to get established up to the end of the season. Overall, **near normal** with a tendency to **above normal rainfall** conditions are expected over most parts of this region during the forecast period.

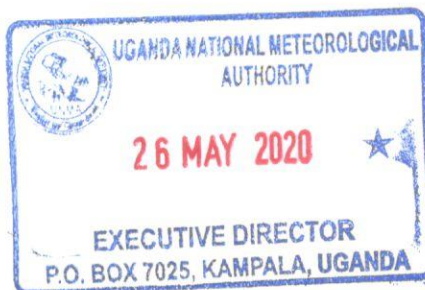
2.4.2 Eastern Northern Parts: (Lira, Kitgum, Agago, Lamwo, Otuke, Pader, Alebtong, Kole, and Dokolo) districts

The current outbreak of showers and thunderstorms being experienced over this region is expected to continue in this region up to mid-June, followed by relaxation up to mid-July. Thereafter, steady rains are expected to pick up until the end of the season. Overall, there are high chances for this region receiving **near normal** with a tendency to **above normal (above average)** rainfall.

2.4.3 Central Northern Parts: (Gulu, Apac, Pader, Nwoya, Amuru, Oyam and Kiryandongo) districts

The region has been experiencing wet conditions which are expected to continue up to mid-June when relaxation will set in up to early July. Thereafter, steady rains are expected up to the end of the season. Overall, there are high chances for **near normal** with a tendency to **above normal (above average)** rainfall to prevail over this region.


Dr. Festus Luboyera
EXECUTIVE DIRECTOR



EXPLANATORY NOTES TO TERMINOLOGY

Above Normal: This is when the total rainfall is above 125% of the long - term - mean (LTM). Impact on socio-economic activities is mostly boosted especially in the modest degrees of above average.

Normal: This is when the total rainfall is in the range of 75% to 125% of the LMT. This range of rainfall is expected to adequately support the normal socio-economic activities for the various areas.

Below Normal: This is when the total rainfall is below 75% of the LTM. Under this range there are high chances for socio-economic activities being stressed, the level of stress increasing with increasing rainfall deficiency.

Annex 1

3.0 ADVISORIES

3.1 Sector advisories

Very often there is no single season which has ever been free of weather and climate hazards. Each season offers novel challenges and therefore require sector advisories or interventions to guide decision-making, planning and operations in strategic sectors of the economy during the forecast period.

During this season, the potential hazards expected are: flash floods, waterlogging, mudslides, rising water lake levels over Victoria, Kyoga and Albert, gusty winds and lightning strikes

Some of these sectors for which advisories are required include the following:

3.2 Disaster Management Sector

With this sector, flash floods are expected in Teso, Elegu border in Amuru district, and Karamoja subregion but mudslides over Elgon subregion.

There is need to carry out sustained awareness campaigns on risks of flooding, lightning and mudslides.

Village, Sub county and District Disaster Management committees are advised to update their contingency plans , report any emerging incident associated with weather and climate hazards immediately to the concerned authorities and to the Office of the Prime Minister on a toll free line of National Emergency Coordination and Operations Centre, 0800177777.

3.3 Water, Energy and Hydro-Power generation

The positive potential impacts expected are sustained reservoir inflows and availability of sufficient water for hydro power production but with a high risk of flooding and destruction of communication networks, and electric power transmission poles due to enhanced rainfall. Besides pit latrines in lowlying areas are likely to be submerged contaminating domestic water sources.

This therefore calls for increased awareness campaigns over the risk of flooding for communities living adjacent to lakes and rivers including regular surveillance over electricity transmission lines. The communities should avoid consumption of contaminated water. Tree planting along riverbanks such as bamboo trees and clearing of water pathways to avoid silting should be undertaken.

3.4 Infrastructure, Works and Transport Sector

The anticipated near normal to above normal rainfall patterns are likely to be accompanied by extreme rainfall events that may lead to flash floods in lowlying areas in eastern, northern, north eastern and in urban areas. This requires urban authorities to clear and reduce blockages of the drainage systems to avoid water logging on streets. Solid waste should be disposed to safer places and authorities also need to check on sewage lines.

Uganda National Roads Authority (UNRA) and Ministry of Works and Transport should reposition its equipment as bridges are likely to be washed away and roads truncated by flash floods in the areas in context. Strong/violent winds may also occur with a potential to cause structural damage to private and public buildings (blowing off rooftops) and collapse of poorly constructed buildings

3.5 Health

There is a potential upsurge of acute water diarrhoeal diseases, cholera, dysentery and bilharzia because of water contamination with faecal matter. Malarial upsurges are also expected to occur during periods when rains relax. Yellow fever cases might go up in West Nile.

Health authorities are therefore advised to be on the lookout and equip health units with necessary drugs to deal with such situations as they may arise. They should intensify health education and awareness campaigns on the use of mosquito nets, slashing of bushes around homesteads, disposing open containers, filling up open pits, and draining stagnant water around homesteads in order to reduce breeding places for mosquitoes; Frequent health inspection in all communities is encouraged; Improve on domestic hygiene and sanitation around homes and schools to reduce on the contamination of water. E.g. use of latrines.

3.6 Agriculture and Food security

As June to August season is often part of the normal dry season in the areas of **south-west, western and central**, the farming population is advised to be vigilant in post-harvest handling practices which include proper drying of the harvest on clean surfaces, use of tarpaulins, drying on racks and good storage of produce to avoid compromising on quality. Plan and construct water harvesting structures.

For northern and eastern parts of the country, farmers should continue with regular weeding, pest and disease surveillance and control. Due to the expected enhanced rainfall in those areas, water logging and proliferation of fungal and bacterial crop diseases is likely to occur. Dig/open drainage channels around household and gardens to reduce risks from stagnant water of causing damage to root tuber crops.

In Karamoja subregion, much wetter conditions are expected to boost the production of cereals (sorghum, millet, and maize), beans, and ground nuts and sustain pasture availability for livestock but flash floods are also anticipated to occur.

All communities are advised to prepare valley dams, reservoirs and other water harvesting facilities for harvesting rain water during this season in order to avert the impacts of dry spells which are usually part of the season.

Uganda National Meteorological Authority will continue to monitor the evolution of relevant weather systems particularly the state of the Seas Surface Temperature (SSTs) over tropical Pacific Ocean, regional circulation systems and issue appropriate rainfall alerts, updates and advisories to the users regularly, especially to those in areas anticipated to experience flooding and mudslides. All users of climate information are encouraged to follow subsequent updates from UNMA website and UBC television in order to keep abreast with changes which evolve over time.

Annex 2:

MARCH AND APRIL OVERALL RAINFALL PERFORMANCE IN 2020

A review of rainfall performance during March to May season, has been done at basic display of statistics for each month but complemented by spatial presentation.

A glance at figure1 below , portrays a comparison on a barchart between observed amounts of rainfall realised from a sample of weather stations within the country during month of March and the benchmark, 1981- 2010 rainfall long term means (LTM) for each station . Overall, it is depicting that much wetter conditions were experienced across the country in March as it is evident from the amounts of rainfall recorded from majority of the stations which surpassed their individual LTMs, except at Ntusi in Sembabule District and Arua where rainfall amounts were slightly below their LTMs.

However, according to figures 3 and 4, rainfall activity was slightly suppressed during the month of April in West Nile sub region (this is visible at Wadelai and Arua stations). Other stations with the same situation were Kasese weather station located at the lowlying area of the district, Kyembogo in Kabarole district, Masindi, Jinja, while for the rest of the country the performance of rainfall was much better. Further details are in figures 1 up to 4, below.

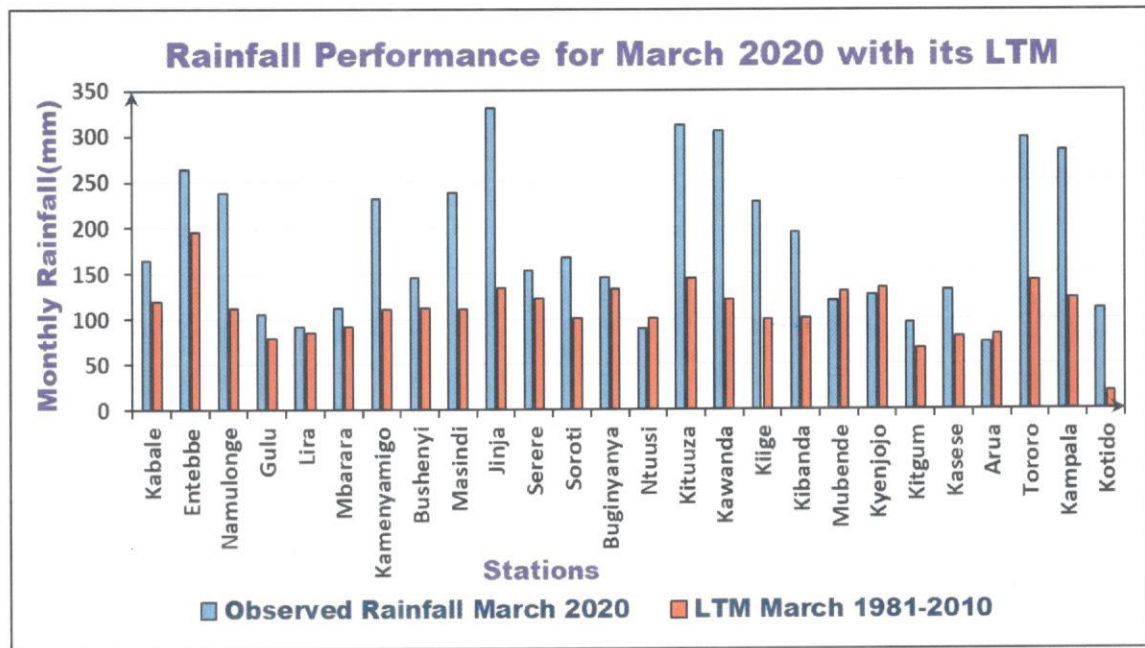


Figure 1: March 2020 actual rainfall amount from weather stations and their individual long term means.

a) Spatial distribution of actual rainfall amount in the month of March and the anomaly

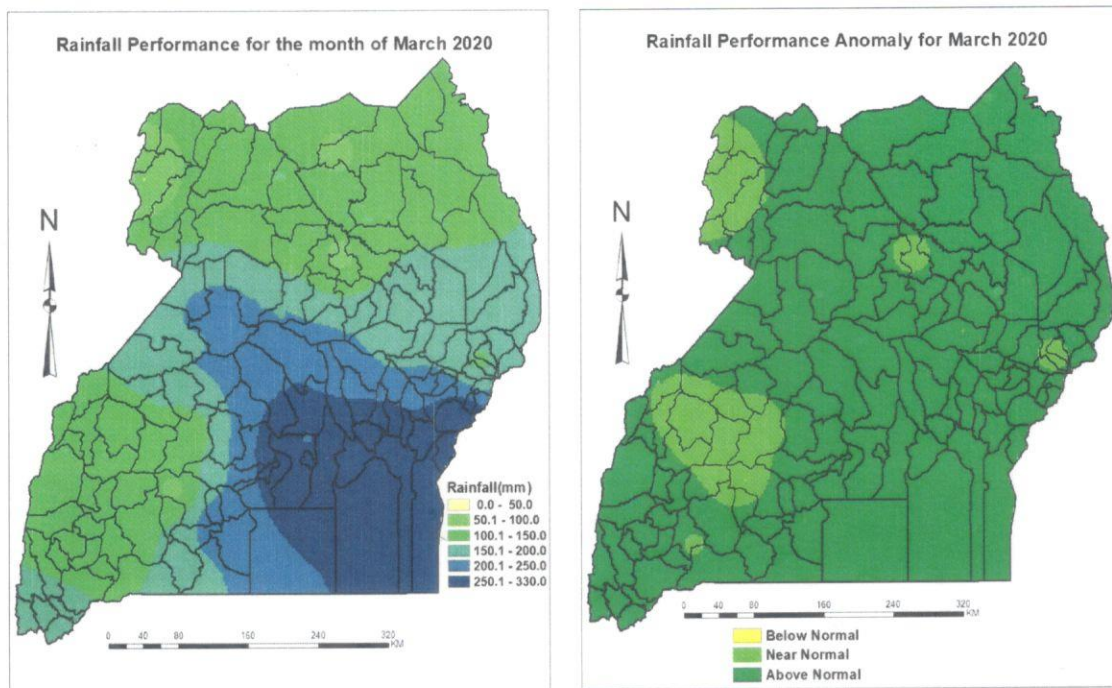


Figure 2: March actual rainfall totals (mm) and deviation from the Long term Average

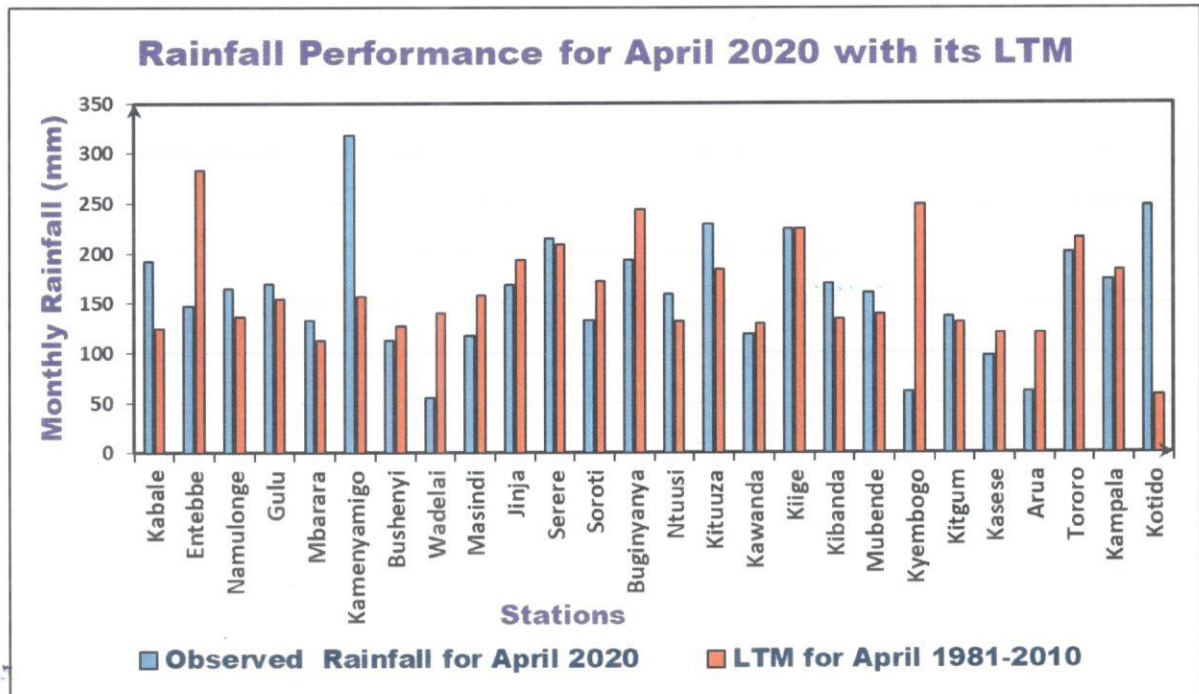


Figure 3: April 2020 actual rainfall amount from weather stations and their individual long term means

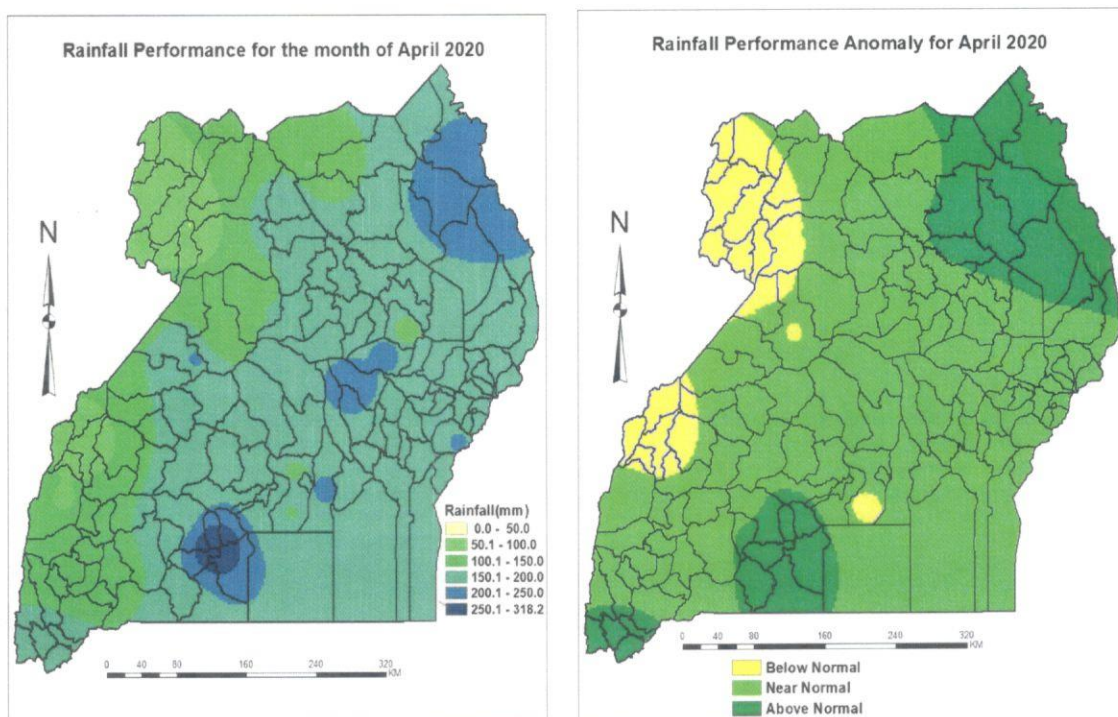


Figure 4: April actual rainfall totals (mm) and deviation from the long term average