Head Office:
Plot 21/28,
PortBell Road- Luzira
Email: info@unma.go.ug
Email: exdir@unma.go.ug



Tel: +256 414 251 798 Fax: +256 414 251 797 P.O.Box 7025, Kampala-Uganda. Website: www.unma.go.ug

# **UGANDA NATIONAL METEOROLOGICAL AUTHORITY**

Ref: FCF/102/02/UPDATE

3rd August, 2024

AUGUST 2024 MONTHLY RAINFALL UPDATE AND REVIEW OF RAINFALL PERFORMANCE FOR JULY 2024 OVER UGANDA

### 1.0 SUMMARY

- The August 2024 rainfall outlook indicates enhanced rainfall over Eastern and Northern parts of the country. However, suppressed rainfall is expected to prevail over some parts of South Western, Central and Western Uganda
- During the month of July 2024, enhanced rainfall was experienced in Eastern and Northern parts of Uganda, where Mt Elgon and Karamoja sub-regions recorded the highest amount of rainfall. The rest of the country recorded moderate (in Central) to suppressed rainfall (in South-western region).

## 2.0 RAINFALL OUTLOOK FOR AUGUST 2024

The forecast for August 2024, reveals that enhanced rainfall is expected to continue over most parts of Northern (West-Nile, Acholi, Lango and Karamoja sub-regions) and Eastern Uganda (Mt. Elgon, Bukedi, and Teso sub regions). In contrast, suppressed rainfall is expected to be experienced in most parts of Southwestern, Central and Western Uganda during the forecast period. Refer to Figure 1.



Figure 1: Rainfall outlook for August 2024



### 3.0 Drivers for the August 2024 Climate Outlook

The major physical conditions that are likely to influence the rainfall distribution for August 2024 over Uganda include: -

- The positioning of the Inter-Tropical Convergence Zone (ITCZ) over the country which shifted to the northern hemisphere;
- The location and intensification of the intra-seasonal variation of Madden Julian Oscillations (MJO) in likely to influence the intensity and distribution of the August rainfall at different locations and time scales:
- The local and regional physical features such as mountains, inland water bodies, and vegetation cover are likely to play a significant role in the rainfall distribution.

NB: The current neutral phase of the Indian Ocean Dipole (IOD), and the neutral state of El-Nino Southern Oscillation (ENSO) are expected to play a neutral role in influencing rainfall performance during this forecast period.

#### 4.0 POTENTIAL IMPACTS DURING AUGUST 2024 AND ADVISORIES

The rainfall forecast depicts continuation of rainfall activity in the Northern and Eastern parts of the country. The potential hazards expected to occur are lightning, flash floods, waterlogging, increased pests and diseases, rapid growth of weeds, contamination of water sources due to increased surface runoff, and disruption of traffic flow along transportation routes as some bridges may collapse or be washed away.

#### Advisories

- Soil and water conservation practices (waterways, trenches, stone bands, contour trenches, diversion channels, grass bands) should be established to minimize the impact of floods and water logging.
- Early/timely weeding to address the rampant growth of weeds such as nut grass, spear grass, wandering Jews, and coach grass which increases the cost of production.
- Stocking of pesticides due to expected increase in pests and disease incidence (bacterial for vegetables and fungal for cereals and vegetables).



- Communities are advised to use safe water to reduce the risk of drinking contaminated water.
- Sensitize and encourage communities to plant trees for firewood and use of energysaving stoves.
- Advocate for fertilizer use to enhance soil fertility due to the likelihood of soil erosion in several districts, leading to increased leaching of soil nutrients especially in the lowlands
- Relocating kraals to raised and fresh grounds to manage foot rot due to the wet and muddy conditions
- Local authorities especially in urban areas are encouraged to clear off clogged water pathways or open up drainage channels to avoid truncation of the roads by turbulent water overflows and over-flooded transport routes.
- Water harvesting should be encouraged to improve water availability especially during dry spells.
- Since there is a high risk of violent winds and lightning, the public is encouraged to take precautionary measures, such as avoiding open places when it is raining, installing lightning arresters, reinforcing buildings.
- Monitor the malaria prevalence and repositioning stocks of drugs and routine distribution of long lasting insecticide treated mosquito nets.

# 5.0 REVIEW OF RAINFALL PERFORMANCE FOR JULY 2024

The analysis of the selected observed rainfall for the month of July 2024 generally depicts wetter conditions in most parts of Eastern and Northern Uganda.

The highest amount of rainfall during the month was recorded at Gibuzale washing station and Buginyanya both in Bulambuli district, with a total of 296.8mm and 266.7mm, respectively. These were followed by Amuria, with a total of 265.3mm and Moroto wih a total of 259.3mm. The lowest amount was experienced at Kibanda weather station in Rakai district, with a total of 5.6mm. Other stations with least amount of rainfall include Ibuga prison station in Kasese district and Mbarara station, with 17.5mm and 20.1mm, respectively.

The temporal rainfall distribution (number of days with rainfall activity) reveals that Buginyanya in Bulambuli district experienced the highest number of rain days, with



an observation of 22 days in the month. This was followed by Gabuzale in Bulambuli district, with 20 days of raifall. Kween and Busulani Washing Station in Sironko district, all had 17 days of rainfall during the month of July 2024.

The highest maximum fall (highest amount recorded in a single day) was observed at Kotido weather station, with a total amount of 114.5mm on 21st July 2024, Kobwin sub-county in Ngora district recorded 104.2mm on 16th July 2024, and Manafwa Washing station in Manafwa district recorded 80.0mm on 23rd July 2024.

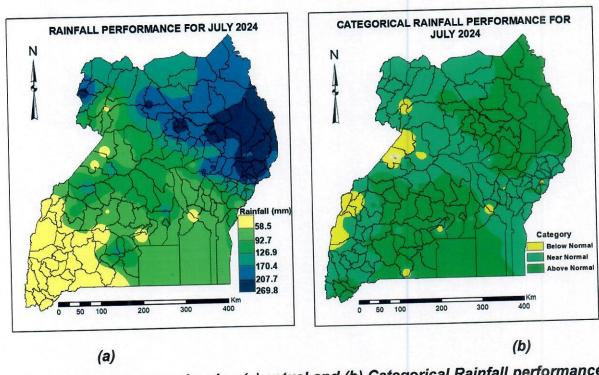


Figure 5: Spatial maps showing (a) actual and (b) Categorical Rainfall performance in July, 2024

The comparison of observed and the Long Term Mean (LTM) rainfall reveals that above normal rainfall was experienced at Arua, Gulu, Lira, Serere, Soroti, Buginyanya, Kotido, Kamenyamigo and Kampala, among others. The stations that recorded below normal rainfall include: Wadelai (Pakwach district), Jinja, Masindi, Bushenyi, Kibanda (Rakai district) and Kyembogo (Kabarole district), among others.



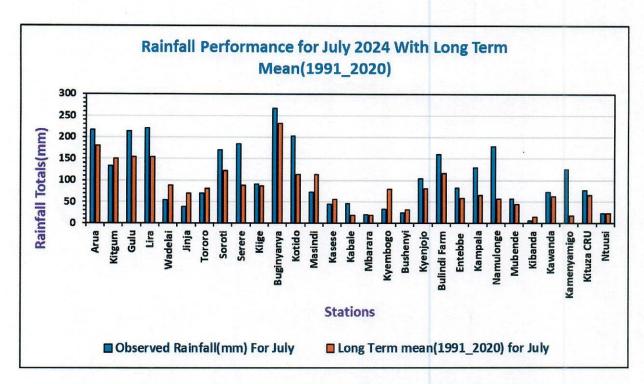


Figure 6: Graph showing observed rainfall performance in July, 2024 and the Long Term Mean (LTM)

Please note that Uganda National Meteorological Authority (UNMA) will continue monitoring the evolution of the relevant weather systems, and issue appropriate weather alerts, updates and advisories to the general public. This outlook should be used together with forecasts at different timescales, including 6-hours, 24-hours, 5-days (city forecasts), 7-days, and 10-days forecasts, routinely issued by UNMA for appropriate planning and decision making.

Bob Alex Ogwang, PhD

AG. EXECUTIVE DIRECTOR