

Telephone General: 505942
Hon. Minister: Direct: 504621
Hon. Minister of State (Water): 222514
Hon. Minister of State (Environment): 222572
Permanent Secretary: 505945
Director of Water Development: 220734
Under Secretary: 236359



MINISTRY OF WATER AND ENVIRONMENT
P.O. BOX 20026
KAMPALA -UGANDA

THE REPUBLIC OF UGANDA

In any correspondence on this
Subject please quote no: APS/130/141/146/03

PRESS RELEASE

Date: Thursday, 10th March 2016

MARCH TO MAY 2016 SEASONAL RAINFALL OUTLOOK OVER UGANDA

1. OVERVIEW

March to May (MAM) constitutes the first major rainfall season in Uganda. During the 42nd Climate Outlook Forum for the Greater Horn of Africa held in Kigali, Rwanda from 22 to 23rd February 2016, the national, regional and international climate scientists reviewed the state of the global climate system and its implications on the seasonal rainfall over the East African region. It was observed that the major physical conditions likely to influence the weather conditions of Uganda and the rest of the region for the forecast period of March to May 2016 are as follows:

- i) The observed and predicted atmosphere-ocean conditions in the Indian and Atlantic Oceans with implications of transporting moisture and rainfall distribution in the region;*
- ii) Global scale forcing due to the decaying / declining El Niño conditions in the tropical Pacific Ocean;*
- 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 for climate analysis, Uganda National Meteorological Authority (UNMA) in the Ministry of Water and Environment, has come up with the following detailed forecast:-

2. GENERAL FORECAST

Overall, there is an increased likelihood of **near normal** rainfall over several parts of the country. The onset of seasonal rains is expected to be characterised by severe thunderstorms and hailstorms in some parts of the country. The

breakdown of the forecast for each region is given as follows:

2.1 EASTERN UGANDA

2.1.1 Eastern Lake Victoria and South Eastern: *(Jinja, Mayuge, Kamuli, Iganga, Bugiri, Luuka, Namutumba, Buyende, Kaliro, Busia and Tororo) districts*

This region has been experiencing intermittent rains since January. The onset of seasonal rains is expected around Mid-March. The steady rains are expected to progress on well until the first week of April when a short lived dry spell is expected. The peak of the seasonal rains is expected around mid April with cessation expected around early to mid June. **Overall, this region has a high chance of receiving near normal to above normal rainfall.**

2.1.2 Eastern Central *(Pallisa, Budaka, Kibuku, Mbale, Sironko, Manafwa, Bududa, Kapchorwa, Kumi, Kaberamaido, Soroti, Serere, Amolatar, Butaleja, Bulambuli, Kween, Bukwo, Bukedea and Ngora) districts*

The region has been experiencing dry conditions with occasional rains during the month of February. Intermittent light showers with occasional violent thunderstorms and strong winds are expected to get established around mid March. Steady seasonal rains are expected to set in around mid April. The peak rains are expected around late April. Moderate relaxation of rainfall is expected around mid June. **Overall the region is expected to receive near normal rains.**

2.1.3 North Eastern Region: *(Katakwi, Moroto, Kotido, Nakapiripirit, Abim, Napak, Amudat, Amuria, and Kaabong) districts*

This region has been experiencing dry conditions reaching drought levels in several areas. However, irregular light rains are expected to set in around mid March, thereafter a prolonged dry spell is expected until mid April when steady rains are expected to get established. The peak is expected around early to mid May, and then moderate relaxation around mid June 2016. **Overall, there are high chances for near normal rains with slight tendency to below normal over this region.**

2.2 NORTHERN UGANDA

2.2.1 Eastern parts of northern region: *(Lira, Alebtong, Kitgum, Agago, Otuke, Pader, Kole, and Dokolo) districts*

The region has started receiving occasional rains. The onset of normal seasonal rainfall is expected around early to mid April. Moderate relaxation of rains is expected around mid June. **Overall, near normal rainfall is expected during this season.**

2.2.2 Central Northern Parts: *(Gulu, Apac, Lamwo, Nwoya, Amuru, Oyam and Kiryandongo) districts*

The region is currently experiencing dry spells which are expected to continue up to mid March when the onset of the seasonal rains is expected to get established.

The seasonal rains will be interrupted by short-lived dry spells around first week of April and Moderate relaxation of rains is expected around mid June. **Overall, there are high chances for near normal rains with slight tendency to above normal over this region.**

2.2.3 North Western: (*Moyo, Arua, Maracha, Nebbi, Adjumani, Yumbe, Koboko, Terego and Zombo*) districts

The region has been experiencing dry conditions since February. Isolated light showers with prolonged dry spells which are being experienced are expected to continue up to first week of April when the onset of the seasonal rains is expected to get established. The peak of the seasonal rain is expected around late April 2016 and moderate relaxation is expected around mid June 2016. **Overall, there are high chances for near normal rains with slight tendency to above normal over this region.**

2.3 WESTERN UGANDA

2.3.1 South Western (*Kisoro, Kabale, Rukungiri, Kanungu, Ntungamo, Mbarara, Kiruhura, Isingiro, Ibanda, Bushenyi, Buhweju, Mitooma, Sheema, Rubirizi and Kasese*) districts

The region has been experiencing isolated outbreaks of light showers and thunderstorms over few places since the last week of February which are symbolising the onset of steady rains. The peak of the seasonal rains is expected around early to mid April and the cessation around early to mid June. **Overall, the region is expected to receive near normal rains during this season.**

2.3.2 Western Central (*Bundibugyo, Ntoroko, Kabarole, Kyenjojo, Kyegegwa, Kamwenge, Kibaale, Hoima, Buliisa and Masindi*) districts

The region has been experiencing relatively dry conditions since January. Currently isolated outbreaks of light rains sometimes accompanied by destructive wind storms are being experienced and these are expected to continue up to around end of March, when a short lived dry spell is expected thereafter steady rains are expected to prevail up to end of May. The cessation of the seasonal rains is expected around mid June. **Overall, there are high chances for near normal rains with slight tendency to above normal over this region.**

2.4 LAKE VICTORIA BASIN AND CENTRAL AREAS

2.4.1 Central and Western Lake Victoria Basin: (*Kalangala, Kampala, Wakiso, Eastern Masaka, Lwengo, Mpigi, Butambala, Kalungu, Bukomansimbi, Gomba, and Mityana*) districts

The region is currently receiving intermittent light showers which are expected to continue up to mid March when the onset of steady rains is expected to get established. The onset of seasonal rains in this region is expected to be accompanied by strong and destructive winds as well as hailstorms and thereafter, rains are expected to intensify with the peak occurring around mid April. The cessation is expected around early to mid June 2016. **Overall, there are high chances of near normal rainfall over this region.**

2.4.2 Western Parts of Central: (*Nakasongola, Luwero, Kyankwanzi, Nakaseke, Kiboga, Mubende, Sembabule, Western Masaka, Lyantonde, and Rakai*) districts

The region is currently experiencing the outbreak of isolated light showers associated with occasional strong winds and hailstorms which are expected to continue up to mid March when the onset of steady rains is expected to get established. The peak of rains is expected to occur around mid April; however short-lived dry spells are expected to interrupt the seasonal rains in this region. By mid May, the rains are expected to relax with cessation occurring around early/mid June 2016. **Overall, there are high chances of near normal rainfall over this region.**

2.4.3 Eastern parts of Central: (*Mukono, Buikwe, Kayunga, Buvuma*) districts

The region is currently receiving some isolated light showers and thunderstorms with occasional hailstorms which are expected to be the gradual onset of the seasonal rainfall. The peak of rains is expected around early/mid April 2016, thereafter, the rains are expected to relax with cessation occurring around early to mid June 2016. Seasonal rains in this region are expected to be interrupted by occasional dry spells. **Overall, near normal rainfall is expected over this region.**

3.0 THE IMPLICATIONS OF THE CURRENT FORECAST

There are high chances that the rainfall performance over several places in the country is expected to be near normal with late onset over several places.

- i) It should be noted that areas expected to receive near normal rainfall does not mean that they will receive little rainfall. The implication is that these areas will receive rainfall within average range of their long term mean and rainfall is expected to adequately support the normal socio-economic activities for the various areas;
- ii) It should also be noted that localized episodic flash flood events may also be observed in areas that are expected to receive near normal rainfall as a result of isolated heavy down pours and similarly, poor rainfall distribution may occur in localized areas expected to receive above normal rainfall.

4.0 SPECIFIC ADVISORIES TO DIFFERENT SECTORS:

4.1 Agriculture and Food Security Sector

The predicted rains are expected to be normal over much of the country and therefore, farmers are advised to do the following:

4.1.1 Regions expecting near normal to above normal rainfall

- Farmers where rainfall onset is established should start securing inputs and planting;

- Livestock farmers are advised to plant livestock fodders at the onset of the rains;
- Water harvesting for home consumption, and ground water harvesting into gardens, dams and valley tanks for livestock and sustaining crop production is encouraged;
- Plant long maturing crops like millet, rice, sorghum, maize, cassava, sweet potatoes on the start of rains and short quick maturing crops later on (beans, tomatoes, vegetables) as rains progress;
- Construct drainage and diversion channels on crop plots and parcels in case of heavy rains;
- Put in place soil conservation structures to prevent soil erosion for those on slopes and highlands;
- Plant pastures, trees including the improvement of the existing ones;
- Guard against tick-borne diseases and worms;

4.1.2 Regions expecting near normal to below normal rainfall such as Karamoja are advised to do the following:-

- Timely planting of quick maturing crops and dry sowing for cereals; where possible as they wait for the on-set of rains is encouraged;
- Use food stocks sparingly and ensure appropriate food storage practices;
- Drip irrigation where possible is encouraged;
- Pasture preservation (making hay and silage) and use available water sparingly;
- Farmers with paddock farms are encouraged to get access to pasture seeds and plant to improve on the quality of the existing;
- Plant drought resistant crop varieties;

In general, farmers are advised to make use of the seasonal rains by optimizing crop yield through appropriate land-use management. Farmers are also encouraged to plant enough food for both domestic use and sale to emerging markets in the neighbouring countries.

4.2 Disaster Management Sector

It should be noted that local and month-to-month variations might occur as the season progresses. For example, episodic flash floods might be experienced in some areas leading to loss of lives and destruction of property. Other disasters may arise from possible landslides mostly in mountainous areas of western, south-western and eastern Uganda as well as strong and gusty winds and lightning among others. Therefore, appropriate measures should be taken to avoid loss of life and destruction of infrastructure and property such as:-

- Construct proper drainage systems around homesteads and urban areas;
- Local communities living adjacent to rivers prone to flash floods are advised to place sandbags a few metres from river banks and around their houses;
- Village, Sub county and District Disaster Management committees are advised to report any emerging incident associated with weather and climate hazards immediately to the concerned authorities at National Emergency Coordination and Operation Centre (NECOC), Office of the

Prime Minister on toll free line **0800177777**;

- De-silt the dams in Karamoja sub region to capture and store the water flows from expected limited rains for use;
- District authorities are advised to update their contingency plans for better coordination in case of any weather and climate disaster that might occur during this season.

In case of Lightning;

- Authorities at all levels should continue to encourage communities to install lightning conductors/arrestors on all structures especially on public buildings (schools, hospitals) and also in homes;
- Teachers should ensure that school children do not play in open grounds or take shelter under trees during light drizzles that precede thunderstorms;
- Avoid contact with metallic objects during thunderstorms since such objects may conduct the electricity discharged by a lightning strike;
- Always listen to your local radios about warnings on impending thunderstorms activity in your area.

4.3 Water, Energy and Hydro-Power generation

4.3.1 Regions expecting near normal to above normal

- Plans for optimization of power generation and distribution should be enhanced due to the expected increased discharge of seasonal rain water into the water bodies;
- Setting up and protection of vegetated/forested buffer zones around water sources to guard against water pollution should be encouraged and communities should avoid consumption of contaminated water;
- There is a likelihood of accidents such as drowning in flooded waters around settlements constructed in water catchment areas especially flood plains;
- Human activities in steep slope areas should be regulated to avoid flooding in downstream areas;
- More cases of electricity pole and wire breakdowns are expected due to wet soils and strong winds. Transformers also might be at stake.

4.3.2 Regions expecting near normal to below normal

- Water source protection and management should be strengthened for water security;
- Water should be used sparingly and where possible water recycling can also be adopted;
- Locals together with all stakeholders should assist communities to construct larger reservoirs to collect rain water;
- Protect and conserve the water infrastructure in the areas like already established dams and valley tanks;
- Soil and water conservation should be encouraged like mulching;
- Other energy sources like solar, biogas and wind energy should be exploited for example Biogas fuel using energy saving stoves.

4.4 Infrastructure, Works and Transport Sector

The anticipated near normal rainfall patterns are likely to be occasionally accompanied by intense rainfall events that may lead to flash flooding in some localized places especially in Kampala city and other urban areas. The following measures should be taken:-

- Urban authorities need to clear and reduce blockages of the drainage systems to avoid water logging on streets;
- Prepositioning of the maintenance logistics (e.g. bull dozers) for repair of bridges that might become submerged or washed away due to flash floods and also landslides which may cause road blockages;
- Strong/violent winds may be experienced that can cause structural damages to buildings (blow off rooftops and collapse of poorly constructed buildings);
- Local Councils should mobilise communities for carrying out “bulungi bwansi”;
- Roads Authorities should liaise with telecommunications and power companies on putting in place emergency remedies in case of demolition of infrastructure due to heavy rains in some places;
- Finalize critical work (e.g. roads) that is affected by rain;
- De-silting drainages and other water channels to curtail flooding is encouraged;
- Prepositioning of construction equipment in areas which are prone to landslides e.g. excavators and bulldozers.

4.5 Health

Increased disease surveillance due to expected upsurges of epidemics related to rainy season such as Malaria, Cholera, Bilharzia and Typhoid, also increase in lower respiratory diseases e.g. Asthma due to humid conditions and allergies from some flowering plants are expected. 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 also intensify health education and awareness campaigns emphasizing the use of mosquito nets, slashing bushes, disposing open containers, filling up open pits, and draining stagnant water around homesteads in order to reduce breeding places for mosquitoes.

- General Hygiene and Sanitation around homes and schools should be strengthened;
- Increase health surveillance and reporting cases of outbreaks of diseases to concerned authorities;
- Increase behavior change communication and campaigns in local communities;
- Increase budget support for local and regional health authorities and centers;
- Frequent health inspection in all communities is encouraged;
- Increased prevention for air born diseases and non communicable illnesses.

In conclusion, the predicted rains require action in sufficient time and in an appropriate manner so as to take advantage of the information. This forecast should be used for planning in all rain-fed economic activities so as to improve economic welfare and livelihoods for all our communities in their localities.

The ministry has taken a further step of translating this forecast into thirty five (35) different local languages for audio and text messages. These translated messages will be disseminated to communities in different parts of the country mainly using local FM radios and meetings/workshops.

For God and My Country



Hon. Flavia M. Nabugere

MINISTER OF STATE FOR ENVIRONMENT

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.
- Accuracy:** This forecast is up to 70% accurate. It is supported by useful forecast guidance inputs drawn from a wide range of sources including the World Meteorological Organisation's Global Producing Centres (WMO GPCs). These inputs were combined into a regional consensus forecast using deterministic and probabilistic modelling alongside expert analysis and interpretation to obtain the regional rainfall forecast for the March to May 2016 season.
- General:** The Uganda National Meteorological Authority will continue to monitor the evolution of relevant weather systems particularly the state of the SSTs and issue appropriate updates and advisories to the users regularly.