



ICPAC

Summary for Decision Makers

SEASONAL FORECAST

June to September 2023

Rainfall and Temperature

June to September (JJAS) is an important rainy season, especially in the northern regions of the Greater Horn of Africa (GHA), where it contributes to more than 50% of the annual rainfall.

The forecast indicates increased chances for drier conditions (below average rainfall) over most parts of the region during JJAS 2023 (Figure 1a), specifically, Djibouti, Eritrea, central and northern Ethiopia, western Kenya, northern Uganda, much of South Sudan and Sudan.

Probabilities for drier conditions are particularly enhanced (> 50%) over central and north-eastern Ethiopia and parts of central and western South Sudan. On the other hand, coastal parts of Kenya, parts of southern and northern Somalia, isolated areas over the rangelands of eastern Ethiopia, southern Uganda, and Ethiopia-Sudan cross border areas are likely to experience wetter than average (above-normal) conditions.

In some regions, forecast probabilities for above-, near- and below-normal rainfall are equal at 33%, for example, over central and western Sudan and in transition zones separating regions where above normal is favoured from regions where below normal is favoured.

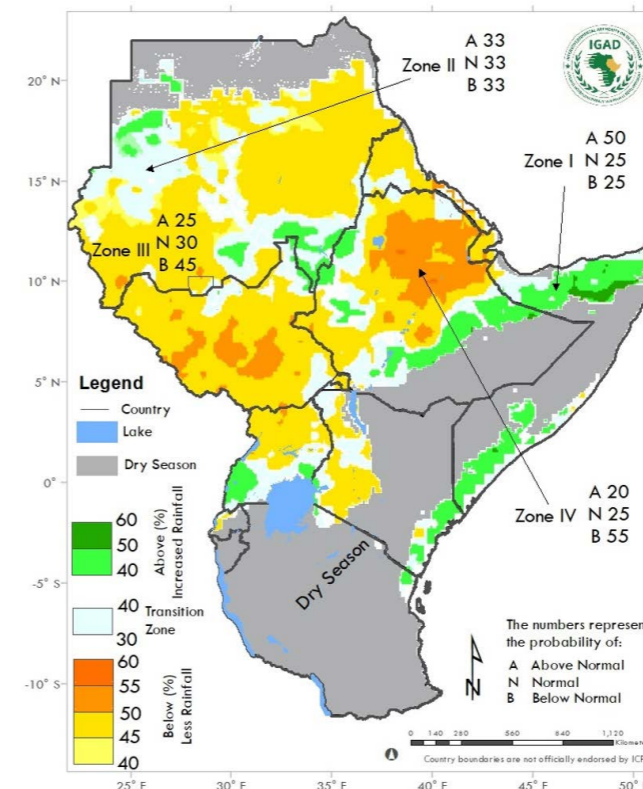
The consolidated objective temperature forecast indicates an increased likelihood of warmer than average conditions over the entire region (Figure 1b). Probabilities for warmer than average temperatures are most enhanced over northern Sudan, parts of southern and central to western Ethiopia, central and northern Kenya, central and northern Somalia, and coastal parts of Tanzania.

The predicted start dates of the June to September 2023 season are provided in Figure 2b. consistent with the outlook for seasonal rainfall (Figure 1a). Analysis of daily predicted rainfall further indicates delayed or near-normal onset dates over much of Uganda, parts of western Kenya, and parts of southern South Sudan (Figure 2a).

An analysis of the Standardized Precipitation Index (SPI) using both observed and predicted precipitation over 4-, 9-, and 15-month period ending on 30 September 2023 indicates moderately dry conditions in the northern regions. This is especially over Ethiopia and Sudan for both the predicted 4-month period and the observed/predicted 15-month period. However, recent relatively wet conditions in parts of Ethiopia result in a positive SPI in central Ethiopia for the 9-month period Jan-Sep 2023.

How should I use seasonal forecasts? Seasonal forecasts are tailored for planning purposes as they are associated with uncertainties. Therefore, this seasonal forecast should be used in conjunction with weekly and monthly forecasts as well as climate monitoring products issued by ICPAC and National Meteorological and Hydrological Services (NMHSs) of the region.

Rainfall Probabilistic Forecast June - September 2023

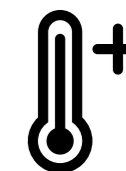
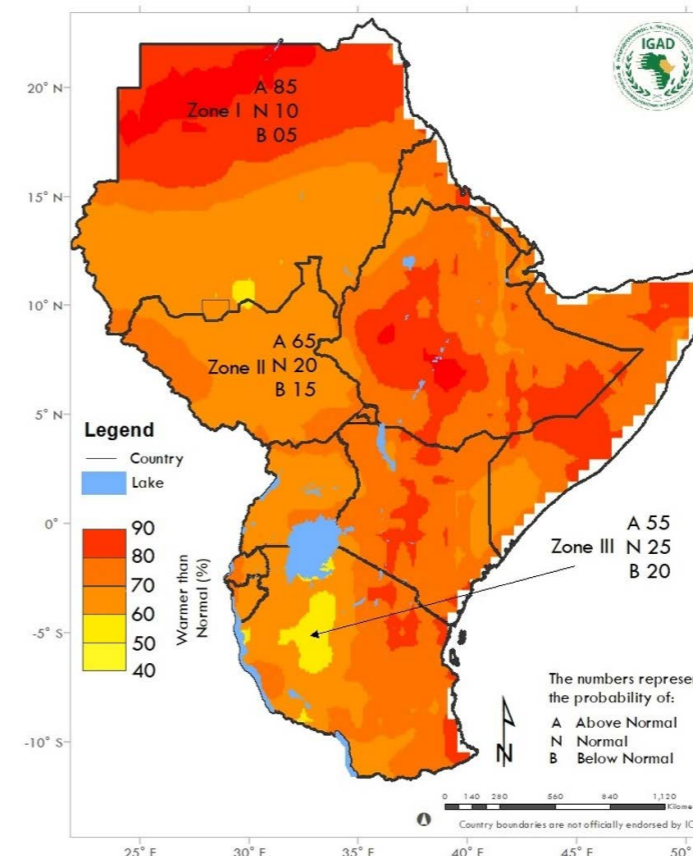


Rainfall



Figure 1 (a): June - September 2023 rainfall probabilistic forecast

Temperature Probabilistic Forecast for June - September 2023



Temperature



Figure 1 (b): June - September 2023 temperature forecast

June to September rainfall season: dry conditions expected in the northern parts of the Greater Horn of Africa

June - September 2023 onset probability

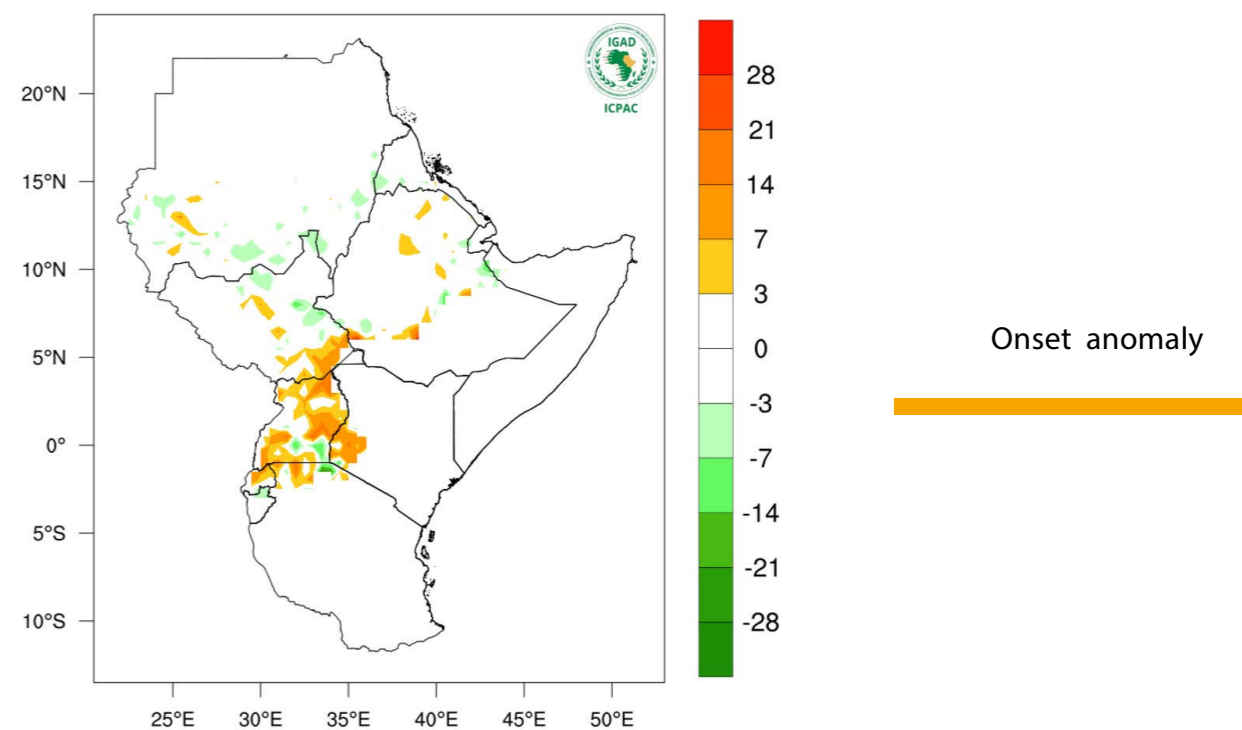


Figure 2 (a): June - September 2023 Onset anomaly

June - September 2023 rainfall onset forecast dates

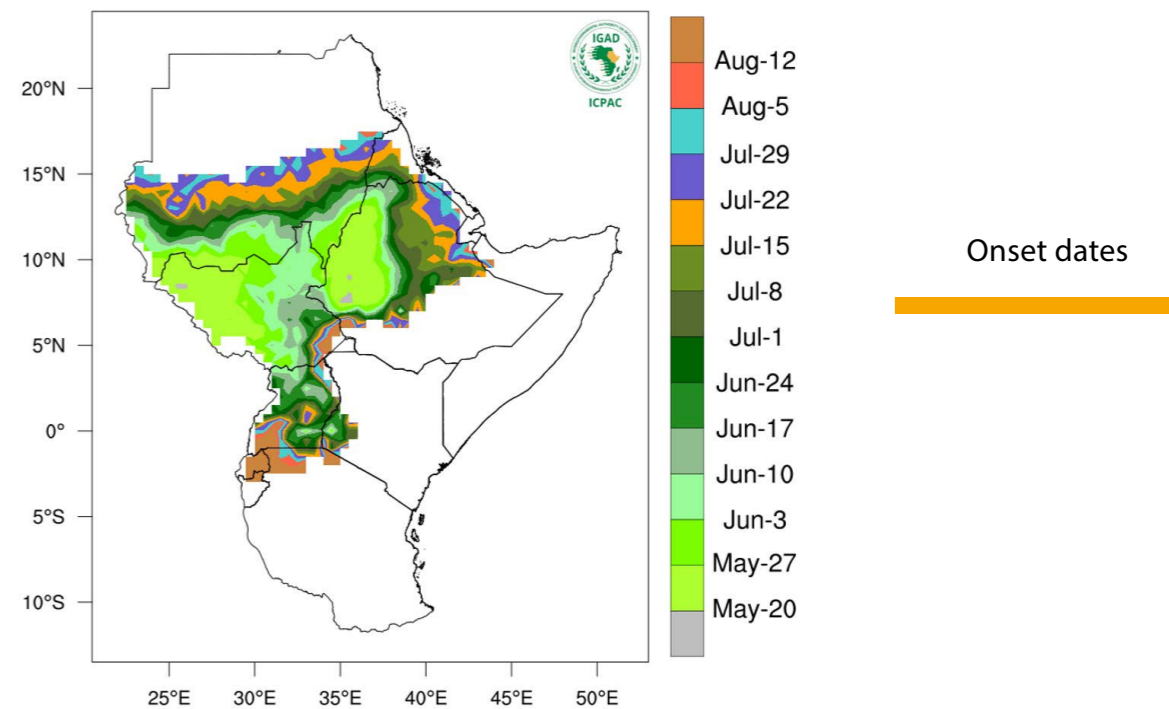


Figure 2 (b): June - September 2023: Onset dates

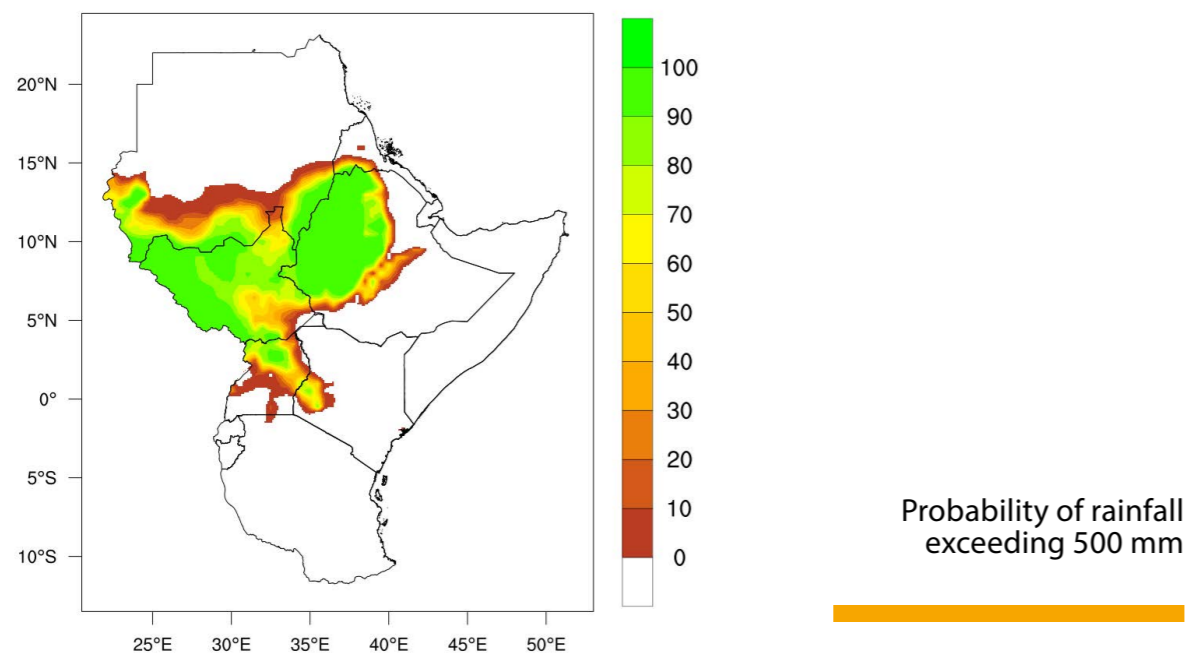


Figure 3 : June - September 2023 probability of rainfall exceeding 500 mm

- High chances of receiving 500 mm over central to western Ethiopia, South Sudan, southern areas of Sudan, and northern Uganda.

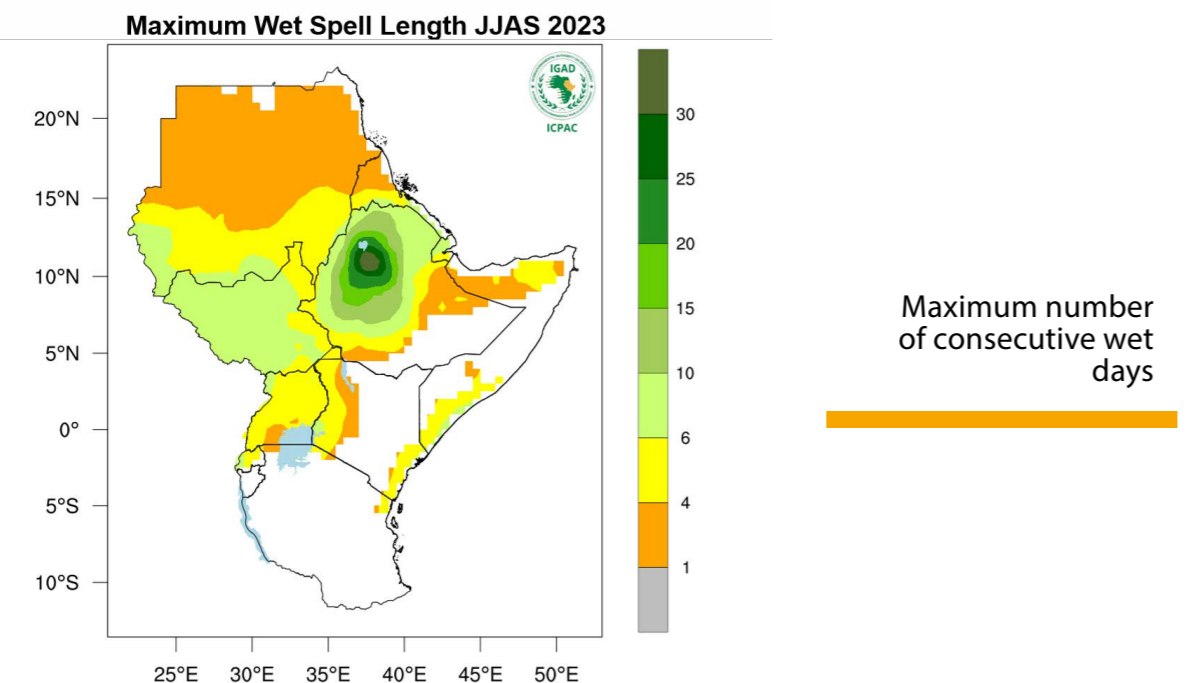


Figure 4 : June - September 2023 maximum number of consecutive wet days

- Longest wet spell lengths (more than 15 days) after onset expected over western Ethiopia.
 - Much of the region to experience max wet spell length ranging from 4 to 15 days

June 2023 forecast

Rainfall Probabilistic Forecast for June 2023

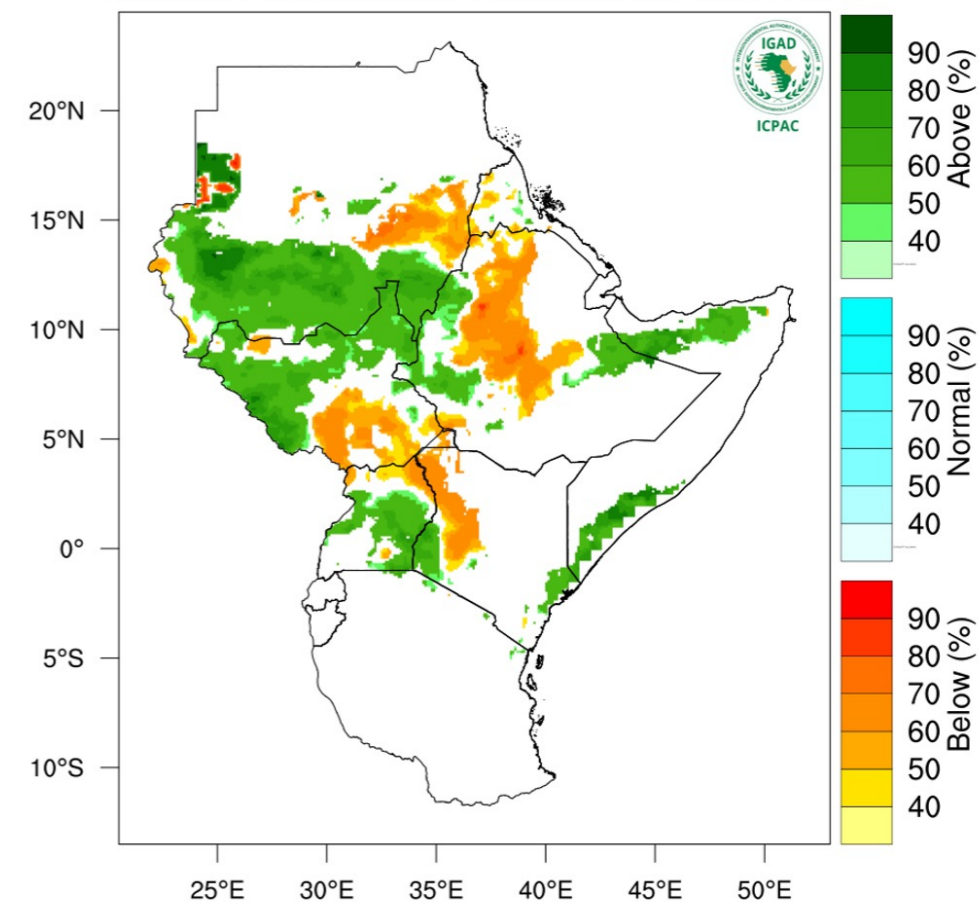


Figure 5 : June rainfall forecast

- Wetter than normal conditions expected over western and southern Sudan, western and northern South Sudan, northern and southern coastal Somalia, and central Uganda extending to the Lake Victoria regions of Kenya.
 - Drier than normal conditions likely over parts of eastern Sudan, southern South Sudan, northern Uganda, western Kenya, and central to northern Ethiopia.

DJIBOUTI



Disaster Risk Management

The JJAS forecast indicates high chances of depressed rainfall and high temperature in the country which may lead to drought and water scarcity.

Advisory

- Prepare for humanitarian assistance to the population at risk by end of June—The Ministry of social affairs / WFP/ FAO.
- Urgently rehabilitate traditional wells, small water boreholes, underground cisterns, water reservoirs and small dams by the Ministry of Water and Djibouti Red Crescent.
- Create protected areas for fodder storage and development of hydroponics with the support of Ministry of Agriculture and FAO by July.
- Establish a livestock destocking system by Ministry of Agriculture and Livestock.
- Expand and/or adapt social protection and cash transfers with the support and National social fund/Ministry of social affairs.



Agriculture and Food Security

Dry conditions are conducive for harvesting of palm dates. Very high temperature and below normal rains not conducive for farming. There is a likelihood of increase in the number of food insecure and malnourished people.

Advisory

- Undertake food distribution to vulnerable populations.



Water and Energy

Enhanced water storage due to the forecasted above average precipitation. Possibility of secured water for use by pastoralist. Enhanced groundwater recharge.

Advisory

- Desilt water pans and other storage facilities to accommodate maximum inflows.
- Provide early warning information on potential risks.

ETHIOPIA



Disaster Risk Management

Areas with above normal forecast in Ethiopia may be associated with landslides and floods that may lead to waterborne disease (human and livestock).

Advisory

- Timely early warning to all regions—to be done by The Ethiopian Disaster Risk Management Commission (EDRMC).
- Conduct multi-stakeholder engagement in preparedness for emergency response.
- Carry out disease surveillance and animal health monitoring.



Agriculture and Food Security

Predicted drier conditions will favor Belg (MAM) season harvest. Predicted normal onset and cessation of rains in most parts of the country favor normal crop growth (normal length of growing period) and could boost double cropping. Prolonged dry spells in the central and north east part of the country (between 4-8 days) will likely impact negatively on main season crop performance (moisture related stress).

Advisory

- Plan early maturing crop and early planting in central and north parts of the country.
- Supply farm inputs (e.g. seeds, fertilizer) on time—government and agro-dealers.
- Harvest water through simple structures like farm ponds for supplementary irrigation in times of water stress.
- Encourage moisture conservation practices and water harvesting in central and northern parts.
- Rehabilitate and develop drainage and irrigation infrastructure.
- Make use of forecast updates for within season planning.



Water and Energy

Potential reduction in hydropower production in Fincha, Koka, Gibe 1 and 3 dams. Potential reduction in water supply. Potential conflict over water resources use. Due to good MAM season, hydropower production is expected to be stable in Melka Wakene, Genale-Dawa III dams.

Advisory

- Promote water conservation measures.
- Prepare water conflict resolution plan in advance.
- Provide early warning information on potential risks.

KENYA



Disaster Risk Management

Anticipated impacts from the current forecast for Kenya are: drought, disaster displacements, resource-based conflicts and diseases outbreaks.

Advisory

- Inoculate and vaccinate livestock—with support from the Ministry of Health in June.
- Preposition food and Non-Food Items (NFI) by the Department of Special Programmes.
- Designate displacement centres—to be done by National Disaster Operations Centre (NDOC).
- Build capacity of stakeholders (training, drills and exercises)—organized by NDOC.
- Start early livestock offtakes as well as cash transfer with support from partners—NDOC with the support of Kenya Red Cross.



Agriculture and Food Security

Dry conditions are conducive for grain harvesting in unimodal parts of Kenya e.g., western parts. Good harvest for cassava, rice, pulses, millet, sorghums and maize expected along the (15 mile) coastal strip. Enhanced pasture growth to support livestock value chain in western and coastal regions leading to enhanced potential for expansion of livestock value chain, thus improving the communities' livelihoods in the above areas. Improved food and nutrition security thus enhancing community health status and school enrolment and attendance in the western and coastal region. Likelihood of outbreak of pests such as Fall Army Worms (FAW). Likelihood of floods/landslides in the western Kenya and coastal areas. Likelihood of displacements in some areas. Damage of infrastructure such as bridges and irrigation equipment. In the unlikely event of enhanced rains, it might interfere with harvesting of crops which might lead to grain spoilage in the western region. Likelihood of community conflicts in the northern, eastern and South Rift due to competition for pasture and water due to depressed rainfall. Low school enrolment and attendance likely due to movement as pastoralist seek water and pasture.

Advisory

- Prepare storage for the expected harvest in western region.
- Prepare silage, hay and crop wastes as animal feeds.
- Use/provide appropriate equipment for transportation, drying, storage, and treatment to avoid crop from spoilage/contamination.
- Advise relevant government authorities to prepare, stock and mobilise resources, chemicals, and personnel to combat any pest's outbreak threats.
- Alert multi agency teams on time to handle any humanitarian needs that may arise.
- Encourage stakeholders to expand and sustain school feeding programmes to ensure food and nutrition security and keep pupils in school.



Water and Energy

Due to adequate water availability from MAM season, streamflow expected to remain within normal range since JJAS is off-season. Potential reduction of water for hydropower production in Masinga and Sondu.

Advisory

- Improve planning for hydropower operations.
- Continuously monitor dam levels.
- Promote water conservation measures.

SOMALIA



Disaster Risk Management

In addition to the ongoing drought impact in some parts of the country, riverine, and isolated flash floods are anticipated for Somalia.

Advisory

- Carry out drought risk mitigation—to be done by Somali Disaster Management Agency (SoDMA) with the support of ICPAC Drought Watch that may lead to the activation of drought anticipatory action.
- Closely monitor the trigger and threshold before activating floods anticipatory action– Ministry of Water and SoDMA.
- Prepare a contingency resource mobilization plan—by government.



Agriculture and Food Security

Enhanced rain in coastal regions is conducive for crop production and pasture growth. Likelihood of flood, waterlogging, and soil erosion incidences within the season especially in low-lying areas.

Advisory

- Government should facilitate timely distribution of farm inputs.
- Create awareness and control for flood possibilities.



Water and Energy

Due to adequate water availability from MAM season, streamflow is expected to remain within normal range since JJAS is off-season. Good water supply for domestic and livestock use.

Advisory

- Raise awareness on water conservation.
- Desilt pans to harvest more water.

SOUTH SUDAN



Disaster Risk Management

Expected impacts are: floods, livestock diseases, epidemics/malaria/cholera and resource-based conflict.

Advisory

- Coordinate peace building within communities, provide water tanks and rehabilitate boreholes.
- Kick start early vaccination campaigns with the support of the Ministry of Health.
- Provide medicines/mobile clinics by the relevant government ministries.
- Raise awareness, stock food, set aside evacuation routes/areas, coordinate with other stakeholders for response, build community dykes, offer cash for work/food for work.



Agriculture and Food Security

Likelihood of flooding in the greater Upper Nile and the Greater Barh el Ghazal areas that could damage infrastructure. Crop performance will be impacted negatively especially in the greater regions.

Advisory

- Create flood awareness and control measures in the Greater Upper and Barh el Ghazal.
- Humanitarian actors urged to be on standby for assistance to areas affected by flooding.
- Rehabilitate and prepare drainage systems.



Water and Energy

Near normal water supply because of stable Lake Victoria outflows. Potential risk of flooding in Bahr El Gazal.

Advisory

- Enhance water conservation measures.
- Create water conflict resolution plan.
- Desilt water pans and dams.
- Run awareness campaigns on flood risk.

SUDAN



Water and Energy

Reduction in hydropower production in Rosieres, Khashm El Girba, and Merowe dams. Reduction in water supply for irrigation. Potential conflict over water resources use.

Advisory

- Improve planning for hydropower operations.
- Continuously monitor dam levels.
- Encourage conservation and storage of water as well as rainwater harvesting.
- Minimize water wastage.
- Prepare water conflict resolution plan in advance.

UGANDA



Disaster Risk Management

There are high chances of landslide around Mt Ruwenzori and parts Kigezi; flooding around Ntoroko, Bundibugyo, Kabarole district; expected water stress in Karamoja (but there is potential for isolated flooding events).

Advisory

- Sustain desilting efforts for rivers in Kasese (River Nyamwamba and others) with the support of the Ministry of Public Works and Ministry of Water.
- Procure and pre-position relief items by the office of the Prime Minister (OPM) and Uganda Red-Cross.
- Train first responders and local government by OPM.
- Develop a national contingency plan for drought.



Agriculture and Food Security

Favourable conditions for physiological maturity, harvesting and drying of crops that had good physiology e.g., beans that might result in probable yield increase and improvement of food security situation. Likelihood of water stress for some crops such as bananas, coffee, tea, and fruit trees. High chances of drier than normal conditions in northern Uganda might affect seasonal operations – planting beans. Likelihood of shortage of pasture and water for livestock which could lead to conflicts. Increased incidences of livestock and crop pests/vectors and diseases like fall army worm, African army worm.

Advisory

- Recommend supplementary irrigation to sustain crop growth in the event of prolonged dry spells.
- Encourage backyard/homestead gardening of vegetables such as nakati, dodo, egg-plants.
- Store enough food for household use especially cereals.
- Plant short maturing crops such as cow peas, leafy vegetables etc.
- Plough towards the end of JJA, in readiness for new season (SON).
- Promote proper post-harvest handling practices to avoid yield losses e.g. use of super bags, metallic silos, maize cribs, cocoons, tarpaulins, raised drying racks.
- Stock farm inputs for the coming season like seeds.
- Preserve pasture for livestock farmers e.g. hay and silage.



Water and Energy

Due to adequate water availability from MAM season, levels are expected to remain within normal range since JJAS is off-season. Enough water is available for various sectors: hydropower, irrigation, municipal and industrial.

Advisory

- Intensify monitoring of water levels to manage the outflow from the lake.
- Schedule operations of all downstream hydropower dams in advance.
- Encourage conservation and storage of water as well as rainwater harvesting.
- Minimize wastage of water.
- Assess water intakes and extend them early to avoid interruptions in water supply.

BURUNDI



Agriculture and Food Security

JJAS (called season C) is climatologically dry in the country. JJAS is an appropriate season for establishment of tree nurseries. Season conducive for préparation the OND coming cropping season.

Advisory

- Encourage farmers to utilize small scale irrigations technologies.
- Restrict farming activities in swampy areas/marshlands particularly vegetables (cabbage, tomatoes, amaranths, onions, carrots) are mostly recommended especially but not beyond the buffer zones.
- Encourage livelihood diversification (e.g. trade, breeding of small livestock, carpentry) and promote other income generation activities.



Water and Energy

Due to adequate water availability from MAM season, levels are expected to remain within normal range since JJAS is off-season. Enough water is available for various sectors.

Advisory

- Encourage conservation and storage of water as well as rainwater harvesting.
- Minimize wastage of water.

RWANDA



Water and Energy

Due to adequate water availability from MAM season, levels are expected to remain within normal range since JJAS is off-season. Enough water is available for various sectors.

Advisory

- Encourage conservation and storage of water as well as rainwater harvesting.
- Minimize wastage of water through improving water use efficiency.

TANZANIA



Agriculture and Food Security

Dry conditions are conducive for harvesting. Season favors post-harvest management, lowers post-harvest losses, alleviate food insecurity. Increased food availability and accessibility. Improved market price for consumers. Moisture stress for horticultural crops.

Advisory

- Government is advised to empower National Food Reserve Agency to buy and reserve food products.
- Communities are advised to maximise food storage at their capacity, and to utilize all food groups for better nutritional security.
- Local governments should facilitate set up of markets to ensure win win situation for both farmers and business men.
- Government urged to facilitate exportation of surplus agricultural products.



Water and Energy

Due to adequate water availability from MAM season, moderate inflows into the lakes and reservoirs. Enough water is available for various sectors. Stable hydropower production in Mtera and Nyumba Ya Mungu dams due to good MAM inflows.

Advisory

- Encourage conservation and storage of water as well as rainwater harvesting.
- Minimize wastage of water and improve water use efficiency.
- Improve irrigation efficiency.






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