

## ICPAC

# Summary for Decision Makers SEASONAL FORECAST

**October to December 2022** 

## Rainfall and Temperature

The upcoming October-December rainfall season constitutes an important rainfall season, particularly in the equatorial parts of the Greater Horn of Africa (GHA), where the OND rainfall contributes 20-70% of the annual total rainfall.

Drier than normal conditions are expected during the October to December 2022 season across the Greater Horn of Africa (Figure 1a). In particular, elevated chance of drier than average rainfall is expected to continue over the drought affected regions of Ethiopia, Kenya, and Somalia. Raised probability for drier than average rainfall is also expected over parts of Eritrea and most parts of Uganda and Tanzania.

Although predicted signals are less significant, there is a chance for wetter than average conditions over parts of Djibouti, eastern Afar region of Ethiopia, and central to north-eastern South Sudan.

The consolidated objective temperature forecast (Figure 1b) from 8 Global Producing Centers (GPCs) indicates an increased likelihood of warmer than average surface temperatures across the GHA. Highest probabilities are indicated over Djibouti, northern Somalia, parts of eastern and southern Kenya and central to north-eastern Tanzania. Cooler than normal conditions are expected over northern Ethiopia and north-western Eritrea.

Consistent with the predicted rainfall, the analysis indicates higher chances of delayed onset dates across much of the eastern parts of the region including southern Ethiopia, central and southern Somalia, eastern Kenya, much of Burundi, and Tanzania (Figure 2a). On the other hand, parts of northern Somalia, western Kenya, Uganda, eastern South Sudan, Rwanda, and northern Tanzania are indicated to experience a normal to early onset. The respective estimated onset dates are shown in Figure 2b.

It is also expected that over most parts of the region the chances of receiving more than 300mm is low, in contrast, high chances of rainfall exceeding 300mm are expected over Burundi, western Rwanda and few areas in north western Tanzania and south western Uganda (Figure 3).

A Standardized Precipitation Index (SPI) analysis of observed and predicted precipitation indicates long-term rainfall deficits in many parts of equatorial and southern regions (Figure 4). Notably, observed deficits projected to the end of December 2022 indicate a 12-month SPI representative of moderate to severe multi-season drought conditions in the region, particularly over Uganda, Kenya, Ethiopia, Somalia, and southern South Sudan

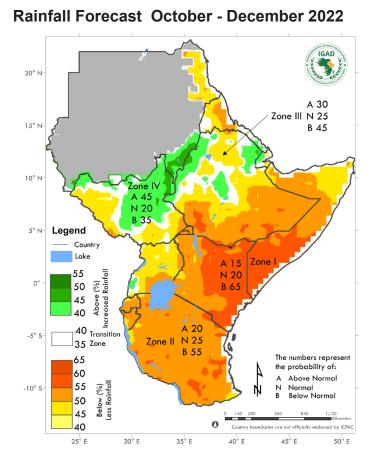
It is estimated that about 18.6 -21.1 million people across Somalia, Ethiopia and Kenya are

highly food insecure due to drought. In Somalia, 213,180 people are in Catastrophe (IPC Phase 5) and this number is likely to raise as the latest updates is to be realised.

Having OND season is very vital to most of the drought-affected areas and prospect of failure of OND rains, will exacerbate the dire food security situation in the coming months. In this respect, the number of highly food insecure populations in the three drought affected countries is projected to rise to 23-26 million in February 2023.

In view of this grim reality, immediate multi-sectoral humanitarian response should be scaled up to save lives and safeguard livelihoods.

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.

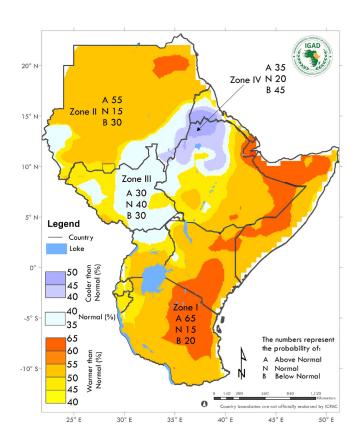




Rainfall

Figure 1 (a): October - December 2022 rainfall forecast

## **Temperature Forecast for October - December 2022**



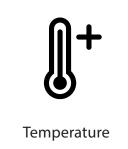


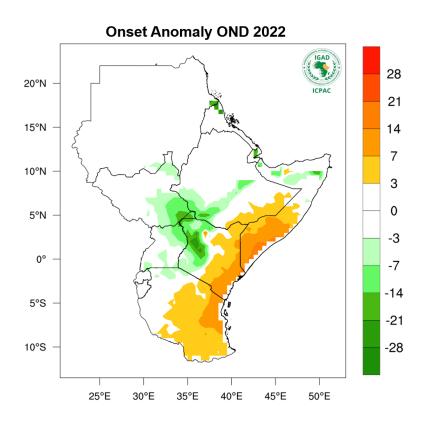
Figure 1 (b): October - December 2022 temperature forecast

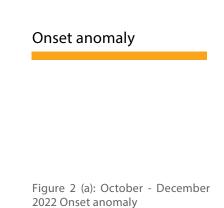
Seasonal forecast for October to December 2022

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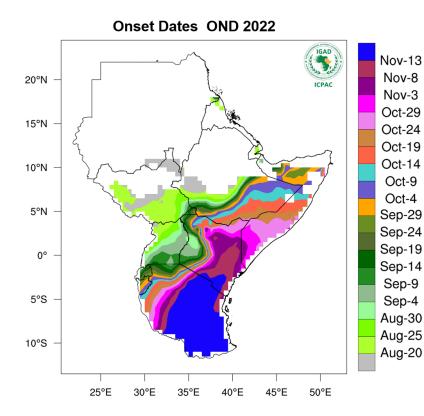
## Dry season predicted for the equatorial and southern parts of Eastern Africa

## **October - December 2022: Onset anomaly**





October - December 2022: Onset dates



Onset dates

Figure 2 (b): October - December 2022: Onset dates

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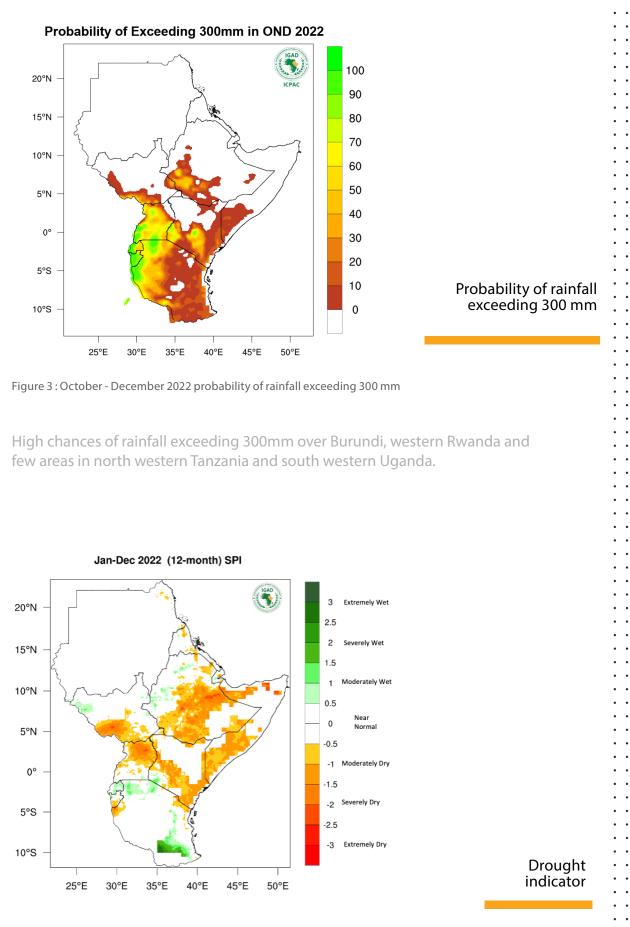


Figure 4 : January - December 2022 Standardized Precipitation Index (SPI) analysis

## September 2022 forecast

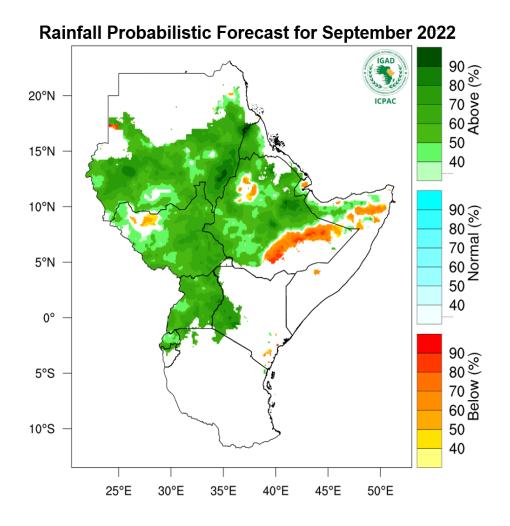


Figure 5 : September rainfall forecast

- Wetter than normal conditions expected over southern parts of Sudan, South Sudan, Uganda, Lake Victoria basin areas of Kenya, much of Ethiopia, parts of Djibouti, and north-western Somalia.

- Drier than normal conditions expected over eastern and part of northern Ethiopia, north-eastern Somalia, and part of north-western South Sudan.

## DJIBOUTI

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## **Disaster Risk Management**

Increase in the number of migrants (locals and citizens) from neighboring countries is likely and can cause conflict. There is a likelihood of deterioration of food as a result of reduced imports from Ethiopia. Food prices are expected to continue rising.

#### Advisory

- · IOM and government to facilitate voluntary return.
- Government to allocate more funds for food importation.
- Resource mobilization and provision of food items and livestock feeds.



## Agriculture and Food Security

Floods are likely to destroy agriculture infrastructure and crops. Destruction of feeder roads is anticipated.

#### Advisory

- Rehabilite of agriculture infrastructure.
- Maintain feeder roads to protect flood risks.



## Water and Energy

Good water availability for different users.

#### Advisory

• Proper water management so that the available water resources last throughout the long dry season.



## Livestock

Upsurge of animal diseases, especially pneumonia, and risk of Rift Valley Fever (RVF) outbreaks. Increased animal movements. Risk of desert locusts.

#### Advisory

- Enhance surveillance, treatment, and vaccination against LSD, PPR.
- Surveillance against desert locusts.
- Operationalize the MoU signed with Ethiopia for coordinated control of TADs and animal movements.



## Health

Spread of airborne diseases. Malnutrition, gastrointestinal disorders or diseases. Displacement of population in search of water and food.

#### Advisory

• Water trucking and supply.



## Conflict Early Warning

High mobility of pastoralists leading to poor animal conditions and deaths. High concentration of pastoralists around places of reprieve - high altitude areas, water basins, wetlands and communal water sources - resulting in probable conflictual issues. Human - wildlife conflicts will be observed around protected and conservation areas.

#### Advisory

- Activate peace committees and CPMR platforms, especially around shared communal resources.
- Engage more with cross border committees along inter-communal routes and grazing areas.
- Engage more with security forces and law enforcement agencies, including conservation and protected area agencies especially around vulnerable grazing and agriculture areas.

## ETHIOPIA



## **Disaster Risk Management**

The forecast for below normal rains will exacerbate the impacts of the ongoing drought and will likely cause – Woreda to Woreda attributed to drought. The forecast of enhanced rains and low temperatures in some parts of the country may cause frost and affect crops. Reduced post-harvesting losses in cropping areas.

#### Advisory

• Activate the taskforce and provide drought monitoring information to affected areas such as Borena, Somali, and parts of Oromia.

- Activate contingency and response strategies in drought-affected areas.
- Advise the Ministry of Agriculture to distribute fast maturing crops in affected areas.



## Agriculture and Food Security

Southern parts (SNNP and South Oromia regions) and 9 zones of the Somali region will face dire food insecurity.

#### Advisory

- Food supply should continue in South Somali, south Oromia (Borena, West Guji and Guji), and SNNP (South Omo, Konso, Alle) regions.
- Utilization of potential irrigation schemes to produce food crops.



### Water

A Stable hydropower production due to good reservoir inflows. Sufficient water available until next rainy season in the Nile basin. Potential water shortage in the Juba and Shebele basins.

#### Advisory

- Manage the available water resources properly.
- Explore alternative sources of water (such groundwater and water trucking) for eastern basins of Juba and Shebel.

## Livestock

Increased animal movements in search of pasture and water in drought-affected regions. Upsurge of animal diseases due to the congregation of animals. Increased conflict over natural resources.

- Enhance surveillance and vaccination against TADs- PPR, CCPP, S&G Pox etc.
- Strengthen conservation of crop residues and supply of animal feeds, drugs, and water as well as resource mobilization.

• Strengthen the operationalization of signed cross-border MoUs on animal health for coordinated control of TADs and promote trade



### Health

Below average rainfall might cause diarrheal diseases. Malaria incidence due to conducive environments for mosquitos over western parts. Likely increase of communicable diseases triggered by climate (e.g., cholera, malaria, dengue).

#### Advisory

• Enhance social support to the communities and special attention to protect children and women from vector-borne diseases.

· Strengthen interventions already in progress and deploy antimalarial drugs and diagnostics timely.

• Consider water supplying through transporting, maintaining existing and establishing new water, sanitation, and hygiene facilities.



## **Conflict Early Warning**

High mobility of pastoralists leading to poor animal conditions and deaths. High concentration of pastoralists around places of reprieve - high altitude areas, water basins, wetlands and communal water sources - resulting in probable conflictual issues. Human - wildlife conflicts will be observed around protected and conservation areas.

#### Advisory

- Activate peace committees and CPMR platforms, especially around shared communal resources.
- Engage more with cross border committees along inter-communal routes and grazing areas.
- Engage more with security forces and law enforcement agencies, including conservation and protected area agencies especially around vulnerable grazing and agriculture areas.



## **Environment and Forestry**

Reduced forage and water available for wildlife and livestock in drought-affected areas leading to resourcebased conflict and human-wildlife conflict. Reduced pre-establishment and growth of trees and forests in areas expecting depressed rainfall.

#### Advisory

- Monitor human-wildlife conflict hotspots and mitigation measures.
- Lessen tree planting and focus on management of existing forest estates for this season.
- · Adopt land management practices, soil and water conservation in western regions.

## KENYA



## **Disaster Risk Management**

Instances of rainfall may cause isolated flooding. The below normal rains will lead to a deterioration of conditions and may lead to conflict in northern parts with neighboring countries due to movement and competitions for resources. Further deterioration of water, food and feed availability due to expected poor rains.

- Mobilize resources / enhance cash transfers / water & food items distribution / import more food items.
- Distribute fast maturing crops for southeastern lowlands / adopt climate smart farming technologies.
- Disseminate early warning information on chances of drought and flooding to save lives/livelihoods.
- Provide water and feed for livestock and domestic use where needed.

## Agriculture and Food Security

In Western Kenya, harvesting of the current season crops will be negatively affected. Early cessation may lead to failure of short season overlap of crops.

#### Lower Eastern:

- Irrigation agriculture will be compromised in Lower Eastern and ASAL areas.
- Lengthened drought and total crop/pasture failure is expected, leading to continued pasture and relief dependency.
- · High chances of human-wildlife conflict in the regions bordering game reserves/national parks, i.e. Makueni.

#### Advisory

Lower Eastern: delay of planting.

- Scale up food relief and humanitarian assistance.
- Farmers in Western Kenya are advised to procure short season crop varieties and other inputs early.
- Farm input distributors are advised to stock required inputs prior to the onset.
- Farmers are advised to prepare their land early.
- Government to fast-track farm inputs and fertilizer subsidy to take advantage of the short crop season.



## Water

Reduction in reservoir inflows in the seven forks reservoirs. Reduction in water resources in the north and eastern basins (Ewaso Ngiro, Tana and Athi), leading to potential conflicts over water access/use. Stable hydropower production in the western hydropower systems.

#### Advisory

- Conserve water.
- Prepare and adopt a water conflict resolution plan.
- Adopt proper water management for the available water resources.



## Livestock

Increased trekking of animals in search of water and fodder, low productivity, deteriorated health, susceptibility to disease and mortality. Increased outbreak of animal diseases due to high levels of animal congregation. Increased conflict between pastoralists and farmers or among themselves.

#### Advisory

- Accelerate destocking through Kenya Red Cross and Kenya Meat Commision.
- Facilitate conservation of crop residues, supply of animal feeds and water.
- Enhance disease surveillance, treatment and vaccination.
- Promote peace dialogue among pastoralists and with crop farmers.



#### Health

Under-nutrition among the population especially among pregnant women, children and the elderly. Likely increased incidence of water-borne infections, i.e. diarrhea, dysenteries, amoebiasis, yellow fever in Ewaso Ng'iro River basin in Isiolo, and some parts of Garissa. Increased incidences of water washed infections i.e. trachoma, scabies and other skin infections in the regions which will experience droughts.

#### Advisory

- Provide relief food, create public awareness and provide medicines to address these conditions.
- Increase ongoing vaccination and strengthen surveillance for yellow fever.
- Provide chlorine chemicals for domestic water treatment.



## Conflict Early Warning

Due to anticipated warmer and drier than usual conditions, there is expected high mobility of pastoralists ensuing poor animal conditions and deaths. This is expected to create unfavorable conditions for mass - long distance raids as a result of poor animal conditions hence dampened conflicts. On the other hand, the situation is likely going to lead to a concentration of pastoralists around places of reprieve-high altitude areas, water basins, wetlands, and communal water sources resulting in probable conflictual issues around these areas. Most likely, human-wildlife conflicts will be observed around protected and conservation areas.

#### Advisory

- Activate peace committees and CPMR platforms especially around shared communal resources.
- Engage more with cross-border committees along inter-communal routes and grazing areas.

• Engage more with security forces and law enforcement agencies including conservation and protected area agencies, especially around vulnerable grazing and agriculture areas.



## **Environment and Forestry**

Decreased water and forage available for wildlife and livestock leading to increased human-wildlife conflicts (especially in/around forests and protected areas/conservation areas), crop raiding, injuries to wildlife and people, predatory livestock, incursion of livestock in forests and protected areas. Increase in wildlife deaths and livestock as a result of the continued drought. Incidences of fires in forests and protected areas. Over sprout of invasive species.

#### Advisory

• Mobilize resources from government and stakeholders to remedy against the expected dry season (provision of water and fodder to wildlife and livestock, facilitation for human-wildlife conflicts measures, fire fighting equipment...).

• Promote fire management practices - digging fire cutlines, firebreaks, early burning, ready fire fighting personnel, gears and machineries.

• Implement invasive and alien species management strategy.

## SOMALIA



## **Disaster Risk Management**

The fifth consecutive drought may affect different sectors of the economy. In-country and cross-border movements in search of water and feed. Resource-based conflict along cross-border areas due to migration by pastoralists.

#### Advisory

- Strengthen social protection systems.
- Promote peace among communities and encourage resource sharing.

• Governments should mobilize and allocate resources and provide food and water for drought affected areas as well as cash transfers.



### Water

Challenges of water availability for domestic, irrigation, and livestock use in Somalia due to the effect of the continued drought. Potential water contamination at lower reaches of the Shebele river. Potential conflicts over water access/use.

#### Advisory

- Encourage water conservation measures and alternative water sources such as trucking and groundwater.
- Create awareness raising on water quality, water-borne diseases and provision of water treatment chemicals.
- Adopt a water conflict resolution plan.



## Livestock

Increased livestock movement in search of pasture and water. Upsurge of vector borne animal diseases. Increased conflict over natural resources.

- Enhance surveillance, treatment, and vaccination.
- Strengthen peace resolution committees.
- Appeal for humanitarian assistance and social support.



#### Water

Challenges of water availability for domestic, irrigation, and livestock use in Somalia due to the effect of the continued drought. Potential water contamination at lower reaches of the Shebele river. Potential conflicts over water access/use.

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- Adopt a water conflict resolution plan.



## Health

Serious shortage of water sources for humans could cause deaths in rural/nomadic areas. Outbreaks of acute water diarrhea (AWD) / cholera due to serious shortage of water sources. Increased malnutrition and starvation.

#### Advisory

- Drill more water wells.
- Encourage water trucking.
- Preposition medical supplies.
- Training health staff.
- Distribute food, cash vouchers, and supplement feeding programs.



## **Conflict Early Warning**

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## SOUTH SUDAN



## Disaster Risk Management

More displacement and malaria outbreak expected as a result of enhanced rains. This can also Impair access to facilities, markets etc due to floods..

#### Advisory

- · Improve access to facilities / provision of food and non-food items to cut off communities.
- Mobilize resources by local and governmental authorities.
- Pre-position medical supplies.



## Agriculture and Food Security

Reduced crop harvest in the central and south-eastern part, particularly some counties in Warap state (Twic and Gogrial East county), and less harvest in the Kapoeta in Eastern Equatoria. Fear of food insecurity in the floods affected counties in Warrap, Jonglei, and Northern upper Nile.

#### Advisory

- Encourage farmers to build appropriate storage facilities.
- Reposition emergency food in the floods affected region in the country.



### Water and Energy

Possibility of flood risk in Bahr el Ghazal (soils currently saturated) as the area is yet to recover from the current flood.

#### Advisory

- Communicate and coordinate with the disaster response team in South Sudan for early warning and early actions.
- Practice proper water management for available water resources.



### Livestock

Increased displacement due to flash floods in Sudd and Wetlands particularly in Unity, Warrap, Northern Bahr el Ghazal, Jonglei, Lakes and part of central Equatoria states. Increased livestock disease outbreaks and mortality in Sudd and Wetlands which are attributed to starvation and fatigue. Possibility of outbreaks of RVF in hotspots areas (Joda upper Nile, Yirol Lakes, Torit Eastern Equatoria and Kejikeji of Central Equatoria). Influx of pastoralists from Sudan to South Sudan in search of water and pasture will contribute to increased conflicts.

#### Advisory

- Activate MOU signed between South Sudan and Sudan for harmonization of vaccination and disease control campaigns along border states of both countries.
- Initiate pastoralist and farmers dialogue before movement of livestock from lowland to highland to minimize conflict.
- Construct dykes along rivers sides to minimize the effect of floods.
- Carry out continuous surveillance and disease monitoring in RVF high risk areas.



## Health

Malaria upsurge across the country. Meningitis outbreak in Northern Bahr el Ghazal state with more than 257 suspected cases. Cholera outbreak.

#### Advisory

• Conduct rapid diagnostic tests (RDTs) and artemisinin-based combination therapy (ACT) prepositioned to all state hubs across the country.

- Conduct case identification, investigation, and management, and mass vaccination.
- · Treat domestic water with chlorine based disinfectant.



## Conflict Early Warning

Due to anticipated warmer and drier than usual conditions, there is expected high mobility of pastoralists ensuing poor animal conditions and deaths. This is expected to create unfavorable conditions for mass - long distance raids as a result of poor animal conditions hence dampened conflicts. On the other hand, the situation is likely going to lead to a concentration of pastoralists around places of reprieve-high altitude areas, water basins, wetlands, and communal water sources resulting in probable conflictual issues around these areas. Most likely, human-wildlife conflicts will be observed around protected and conservation areas.

#### Advisory

- Activate peace committees and CPMR platforms especially around shared communal resources.
- Engage more with cross-border committees along inter communal routes and grazing areas.
- Engage more with security forces and law enforcement agencies including conservation and protected area

agencies, especially around vulnerable grazing and agriculture areas.



## **Environment and Forestry**

Enhanced rainfall will lead to improved pasture and water points for wildlife and livestock, reducing pressure and resource-based conflicts. Good natural regeneration in both forest plantation and natural forests. Soil erosion/ land degradation and floods expected.

- Promote tree planting programs to benefit from the expected enhanced rainfall.
- Encourage land management/soil conservation and ecosystem restoration practices.

## SUDAN



## **Disaster Risk Management**

Not a major rainfall season. Riverine flooding due enhanced rains in the upstream areas of the Nile river. High chances of cholera and other related diseases.

#### Advisory

- Monitor water levels in river Nile.
- Pre-position medical supplies by the ministry of Health.
- Humanitarian Aid Commission (HAC) office to disseminate early warning information for anticipatory early action.



## Agriculture and Food Security

Increasing prices of farm inputs and fuel will affect the yield in crop producing areas, particularly in riverine areas.

#### Advisory

• Government should do continuous monitoring of agricultural and food prices combined with subsidies of inputs and staple foods.

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## Water and Energy

Stable hydropower production in case of completed filling of reservoirs during September. Available water for irrigation.

#### Advisory

- Proper water management of available resources
- Improve irrigation and water management.



### Livestock

EUpsurge of diseases (HS, RVF, water born, dengue fever). Extreme temperatures will challenge water conservation in open surface dams. Increased movements of livestock to South Sudan in search of pasture and water.

#### Advisory

- Enhance surveillance and vaccination against expected diseases before livestock movement to South Sudan.
- Strengthen one-health approach to manage zoonose.
- Initiate peace dialogues before movements and with crop farmers.



## Health

Viral and bacterial respiratory diseases plus asthma. Upsurge of Malaria cases expected. Diarrheal diseases.

- · Conduct early detection of cases and treatment.
- Avail medicines.
- · Carry out disease surveillance, early detection of cases and treatment, control of vectors, raise awareness.
- Conduct disease surveillance, treatment. Provision of safe water and awareness raising.



## **Conflict Early Warning**

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#### Advisory

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- Engage more with cross-border committees along inter communal routes and grazing areas.
- Engage more with security forces and law enforcement agencies including conservation and protected area agencies, especially around vulnerable grazing and agriculture areas.

## UGANDA



## **Disaster Risk Management**

Food prices expected to increase due to persistent drought. Resource-based conflicts for water and pasture. Migration within the country and across borders.

#### Advisory

- Government to provide seeds of fast maturing crops and supply of food, water and feed.
- Preposition food and non-food items and cash transfers for Karamoja, Acholi and other affected areas.
- Use available water/pasture sparingly.

## Agriculture and Food Security

Crop rotting due to water logging and post-harvest losses. Upsurge of pests and diseases and African Army Warm (AAW). Increase in prices of crops attributed to damaged roads.

#### Advisory

- Encourage soil conservation techniques and open up drainage channels to avoid floods.
- Encourage farmers to carry out proper post-harvest storage practices to minimize losses.



## Water and Energy

Reduction in hydropower production for the mini hydropower plants due to reduced streamflows. Decline in Lake Victoria water level although current water levels are still high. Some wetlands in Uganda might dry up and affect fisheries.

#### Advisory

- Encourage water conservation measures.
- Continuously monitor lake water levels.
- Properly manage water and available water resources.



## Livestock

Upsurge of vector borne and tick borne diseases, worms, clostridial, foot rot in north & north-west. Risk of RVF outbreak, risk of rabies from wild animals.

#### Advisory

- Vaccinate dogs against rabies, Rift Valley Fever, clostridial disease, deworming, increase control of ticks and external parasites and diseases.
- Enhance surveillance against RVF.



### Health

Depressed crop yield and food insecurity leading to food shortage, increased food prices, malnutrition, and death due to starvation. Poor sanitation and hygiene due to limited water sources leading to risk of infectious diseases like diarrhea, and cholera. Increased migration due to search for food, water, and pasture leading to transmission of infectious diseases.

#### Advisory

- Set aside emergency food and response by member states.
- Food security response to address food availability, access, and utilization.
- Identify new water resources and improve hygiene practices.
- Strengthen systems for emergency disease surveillance, preparedness, and response for priority diseases.



## **Conflict Early Warning**

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#### Advisory

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- Engage more with cross-border committees along inter communal routes and grazing areas.
- Engage more with security forces and law enforcement agencies including conservation and protected area agencies, especially around vulnerable grazing and agriculture areas.



## **Environment and Forestry**

Increased deforestation and over exploitation of forest resources. Decreased water and forage available for wildlife and livestock leading to increase in human-wildlife conflicts especially in/around forests and protected areas/conservation areas. Increased forest stress, pests and diseases, and over sprout of invasive species.

#### Advisory

• Promote moisture-stress resistant varieties of trees, less planting and focus on management of existing forest estates.

• Provide fodder and forage to wildlife and livestock, monitor human-wildlife conflict hotspots, and put mitigation measures in place.

• Implement invasive and alien species management strategy.

## BURUNDI

## Agriculture and Food Security

Low crop production for regions where drier conditions are predicted. Increased food prices causing difficulty in food access/food security.

#### Advisory

- Plant late in the period due to the predicted late onset.
- Promote drought tolerant crops varieties or/and early maturing crops.
- Promote other income generating activities (trade, small breeding, carpentry, etc)
- Encourage use of kitchen garden facilities in regions where drier than usual conditions are predicted.



## Water and Energy

Reduction in water supply for domestic usage and livestock. Potential conflicts over water access/use. Minimum risk of flooding.

#### Advisory

- Encourage water conservation and storage measures.
- Raise awareness on water quality and water-borne diseases.
- Raise awareness on flood risk for flood prone areas.

## RWANDA

## Agriculture and Food Security

Delay of rainfall onset in the south-eastern parts is likely to impact negatively on long cycle crops (eg: maize, etc). Crop disease, particularly fall armyworm (FAW) anticipated in central and eastern regions.

#### Advisory

- · Avail in good time seeds, fertilizer, and post-harvest infrastructures to farmers affected by late rains.
- Regularly monitor crops to control the infection of pest and disease, mostly fall armyworm (FAW).



## Water and Energy

Reduction in water supply for domestic and livestock.

#### Advisory

• Promote water conservation measures.

## TANZANIA

## Agriculture and Food Security

Advise farmers to prepare the fields earlier, but planting should be delayed until rain sets. Choose drought tolerant seeds and early maturing varieties, with higher yields (improved ones). Most households should engage in horticultural crops and other activities which can generate other income sources. Use of climate smart agriculture techniques and technologies for water and soil conservation. Households are recommended to use available food efficiently.

#### Advisory

- Disseminate alert on the expected enhanced rainfall and the risk that come with it.
- Actively monitor the seasonal progress through rainfall.



## Water

Reduction in hydropower production in north-east systems. Reduction in water supply for irrigation and domestic use.

#### Advisory

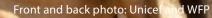
- Promote water conservation measures
- Use groundwater to supplement surface water.
- Improve irrigation water management.



## Health

Expect water-related diseases epidemics, such as trachoma in Dodoma, cholera, and dysentery in most parts of the country. Food scarcity in most parts of the country might result in malnutrition. Heat stress in most parts of the country, (except north-western part.)

- Improve hygiene among communities.
- Store enough food from now.
- Drink enough clean and safe water.



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