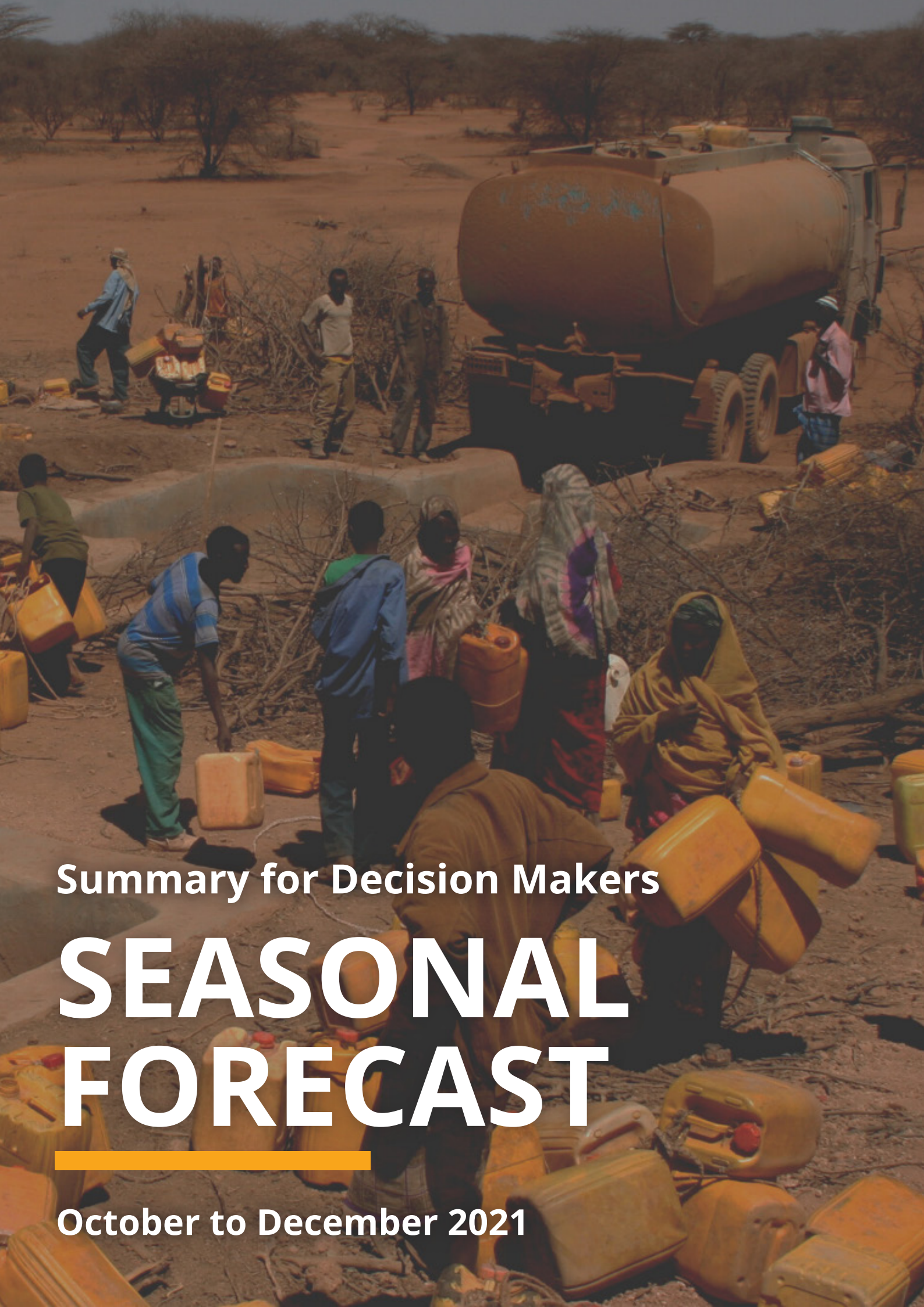


A large water tanker truck is parked in a dry, arid landscape. Several people are gathered around the truck, some standing and some sitting. Many yellow jerrycans are scattered on the ground, indicating a water distribution point. The background shows sparse, dry vegetation and a clear sky.

Summary for Decision Makers

SEASONAL FORECAST

October to December 2021

Rainfall and Temperatures

The upcoming rainfall season, October to December, is an important season for Uganda, Kenya, northern Tanzania, southern and central Somalia, southern Ethiopia and South Sudan, Rwanda, and Burundi. For some of these countries, this is the main farming season and it represents up to 70% of the total annual rainfall.

A drier than usual season is forecasted across Eastern Africa from October to December 2021. In particular, in Tanzania, Burundi, Rwanda, Kenya, southern, central, and north-western Somalia, southern and south-eastern Ethiopia, and the Red Sea coast of northern Eritrea. Of particular concern are the drier than usual conditions forecasted over the cross-border areas of Kenya and Somalia.

2021 is being, and expected to continue to be, a drier than usual year for the majority of the region. Observations of rainfall over the past months reveal that the region has been facing rainfall deficits in many parts of central and southern East Africa and this is forecasted to continue until December 2021. Past observed deficits, coupled with our forecast indicate moderate to severe drought conditions in the region, in particular over Uganda, south-western Ethiopia, eastern Kenya, southern Somalia, and Tanzania.

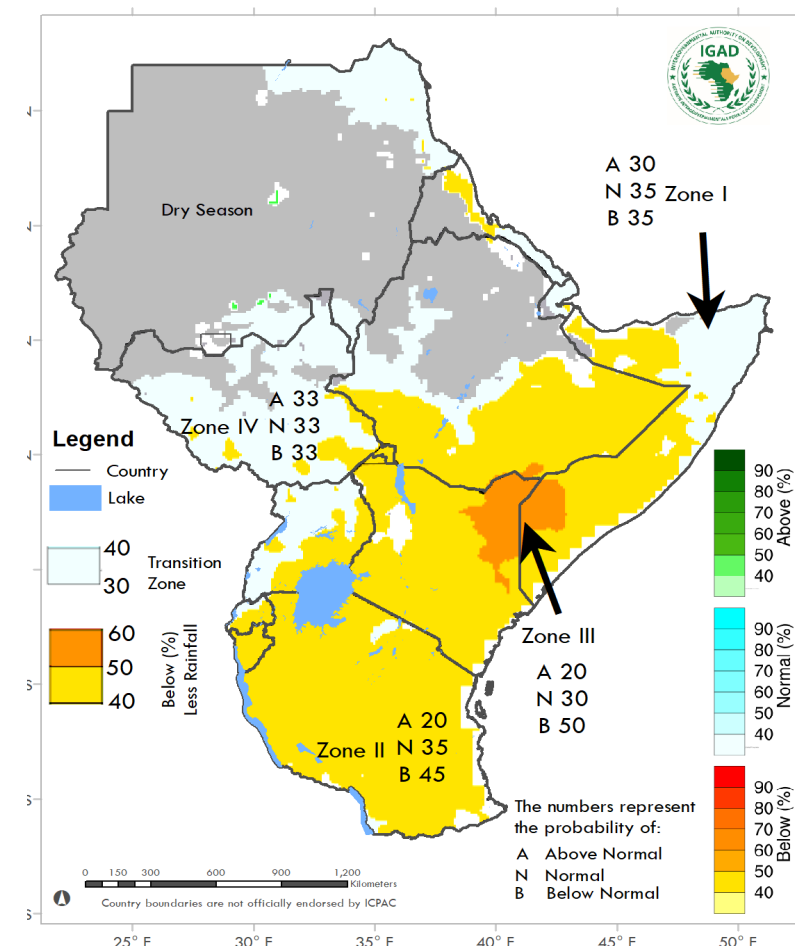
The start of the season is expected to be delayed by up to 2 weeks, especially over eastern Kenya and southern Somalia. The forecast indicates that South Sudan, north-western Uganda, and south-western Ethiopia could receive over 200 and 300 mm during the entire season. There is a lower than usual chance of exceeding 200 and 300 mm over most other regions, in particular over eastern Kenya and southern Tanzania.

Besides the dry conditions, warmer than usual temperatures are expected across the region. In particular in eastern Kenya to Somalia, eastern parts of Ethiopia, and eastern Sudan.

The food security and nutrition situation is likely to worsen especially in the Arid and Semi-Arid regions, requiring the need for expanding humanitarian assistance and interventions across the region. Generally, poor rains, late-onset, coupled with other non-climatic drivers like COVID-19, economic shocks, and conflict present poor prospects for farming across the region. More than 30 million people in the region will likely be highly food insecure (IPC Phase 3+) and in need of urgent assistance through 2021.

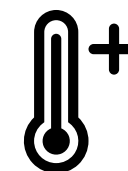
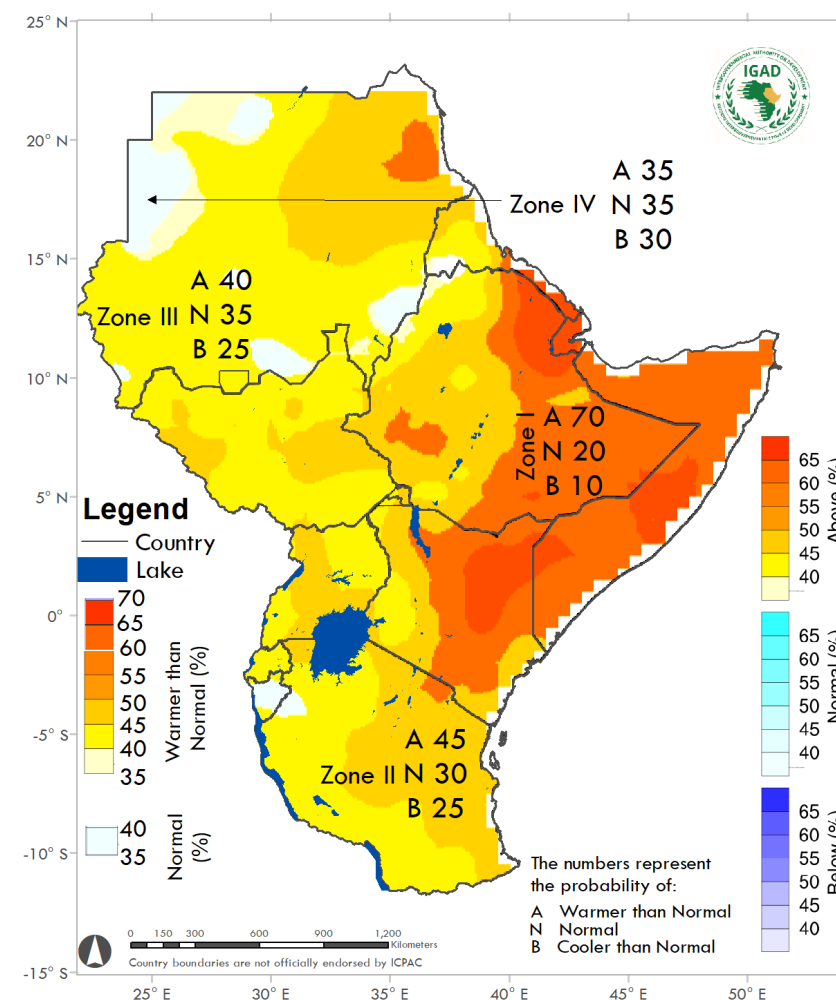
How should I use seasonal forecasts? Seasonal forecasts need to be used with caution for planning purposes because of the uncertainty inherent in seasonal forecasting. It is crucial to update and adjust plans with weekly and monthly forecasts as well as climate monitoring products issued by ICPAC and NMHSs.

Rainfall Forecast October - December 2021



Rainfall

Temperature Forecast for October - December 2021

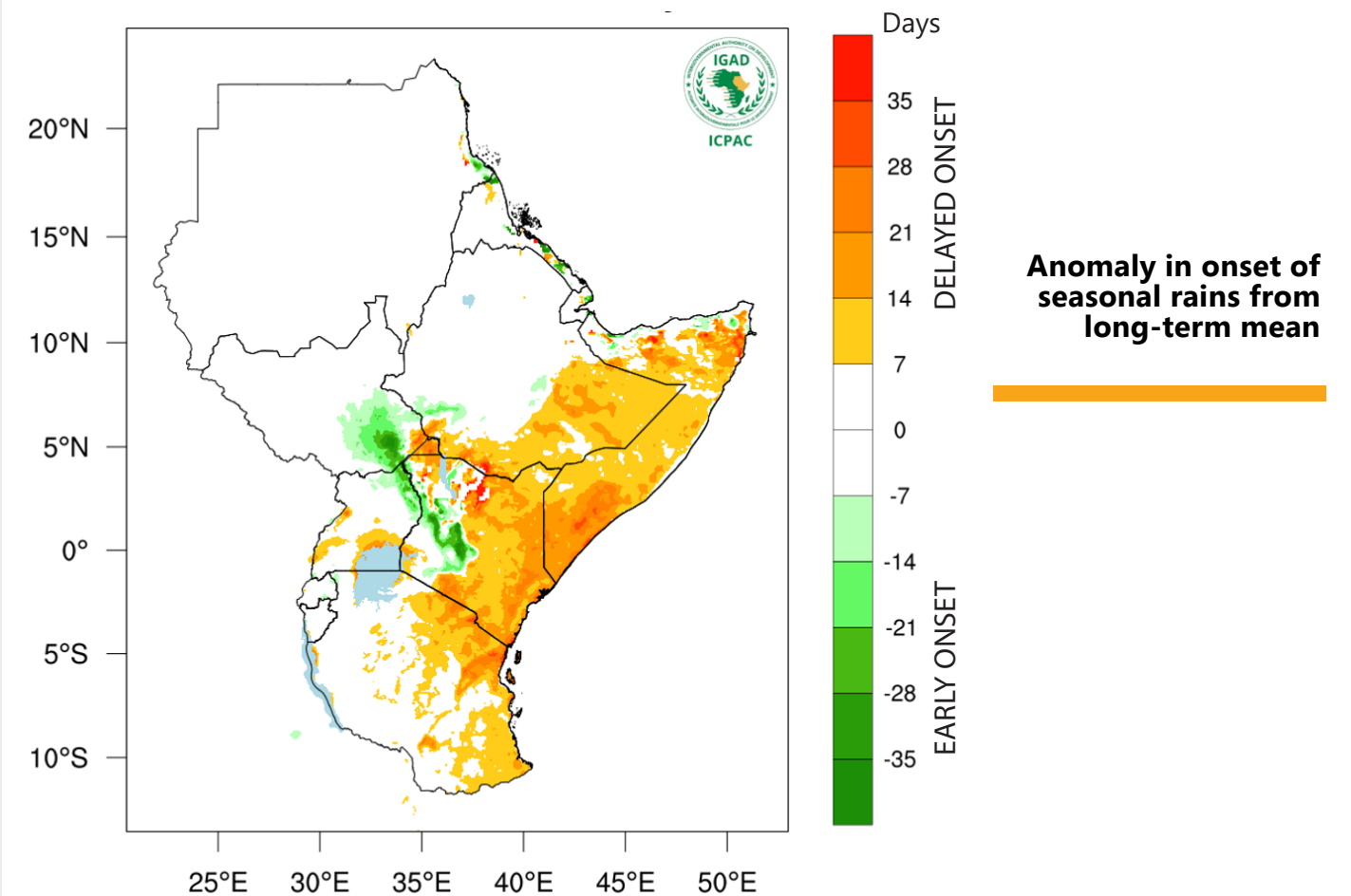


Temperature

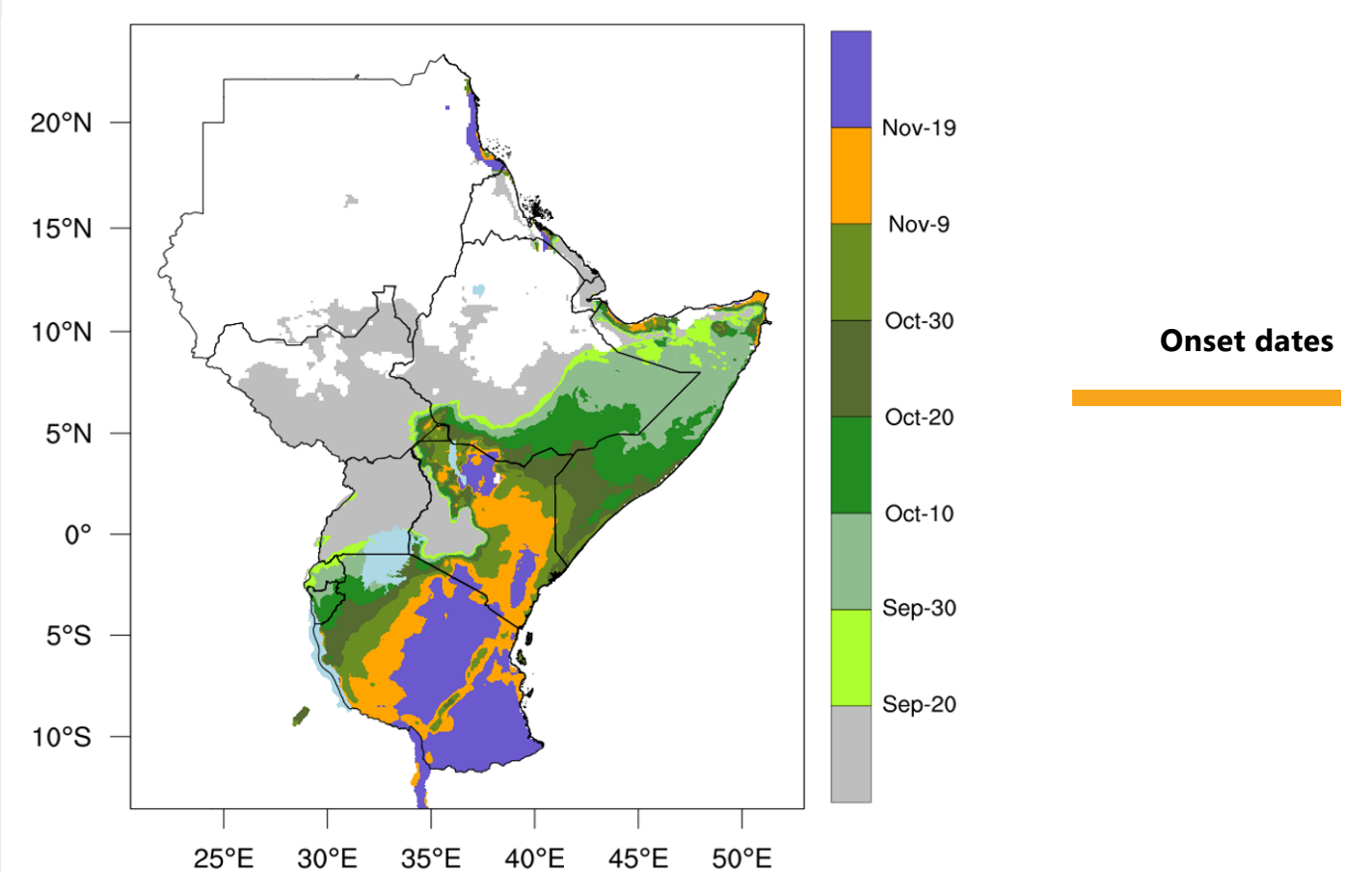
FIGURE 1 and 2:
Seasonal forecast for
October - December 2021

Drier and Warmer Season Forecasted to Continue Across Eastern Africa.

October - December 2021: Onset anomaly

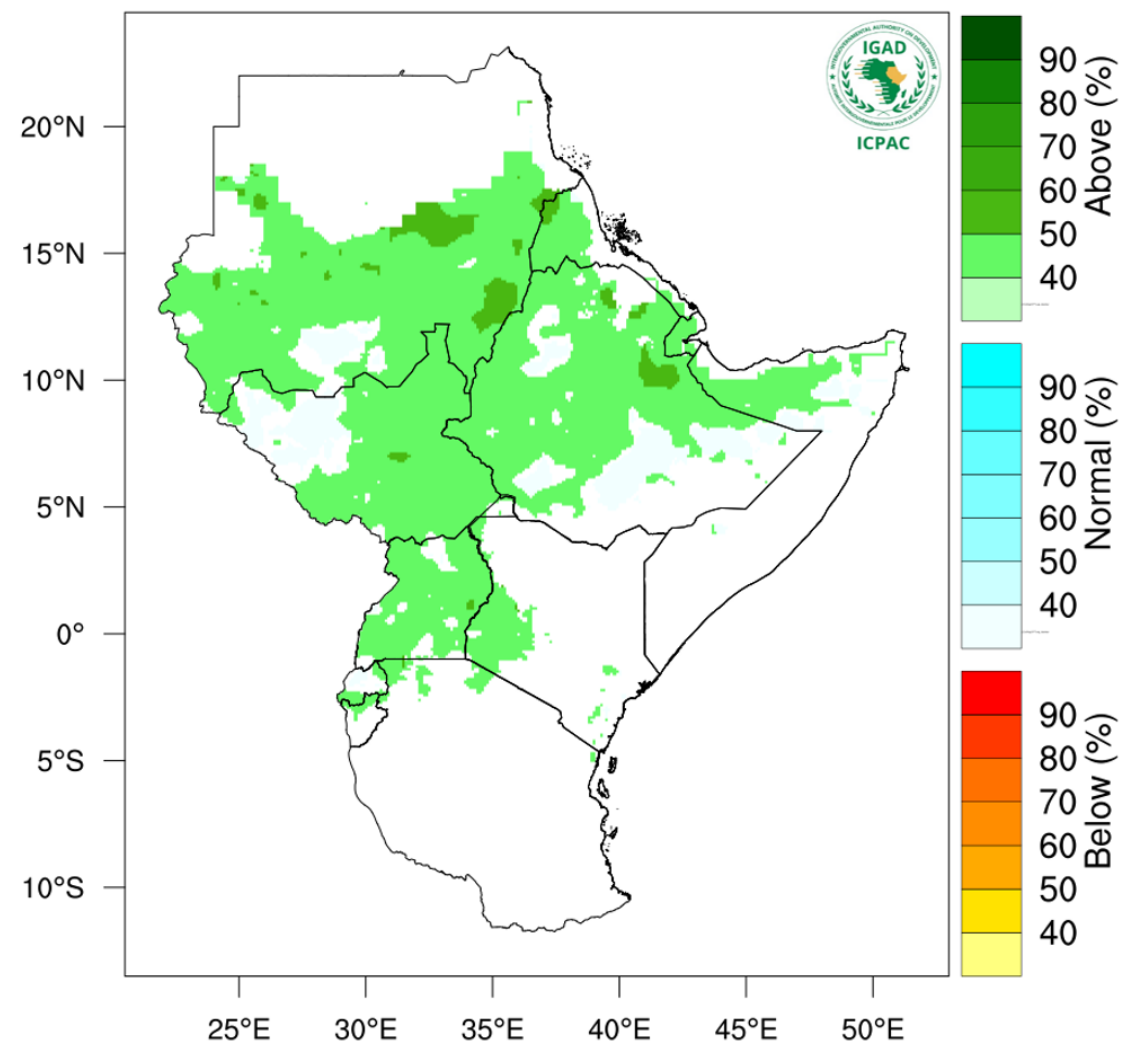


October - December 2021: Onset dates



September forecast

September Monthly Rainfall forecast

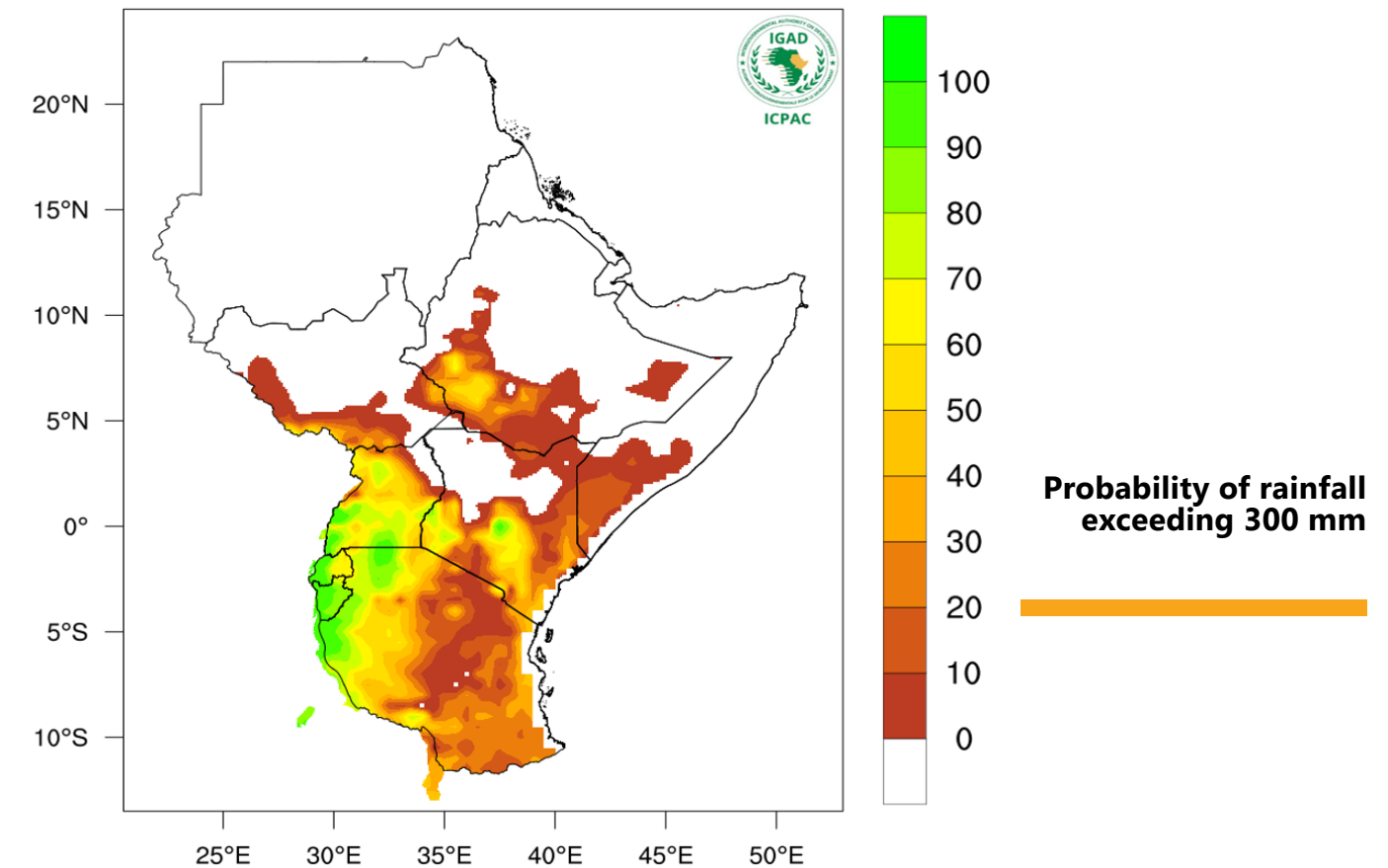


Wetter than usual conditions are expected over part of western Kenya, Uganda, much of South Sudan, southern areas of Sudan, much of Ethiopia, Djibouti, and north-western Somalia.

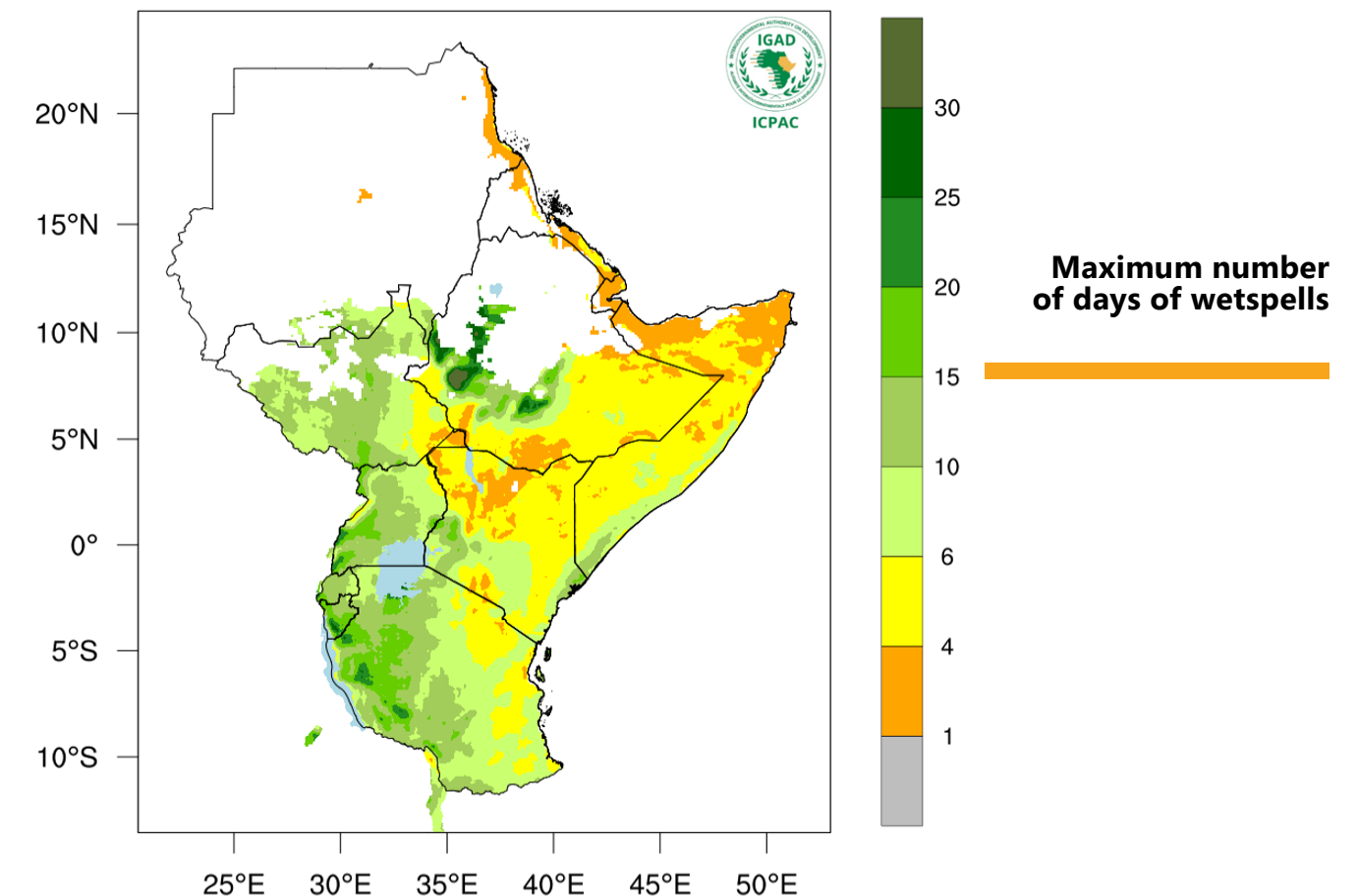
Usual conditions are likely to occur over north-western South Sudan, north-eastern Somalia, and a few areas in south-eastern Ethiopia.

The rest of the region is generally dry during September.

OND 2021: Probability of Rainfall Exceeding 300 mm



OND 2021: Number of days of wetspells



DJIBOUTI



Water and Energy

Water availability will deteriorate as this is not the rainy season.

Advisory

- Water Conservation and sustainable use of groundwater is encouraged



Livestock

Expected Outbreaks of animal diseases and likelihood of outbreak of desert locust.

Advisory

- Conduct Monitoring, control, and surveillance of animal diseases
- Conduct desert locust control measures



Water and Energy

For the northern parts of the country, this is not the main rainy season but a good June-August season will ensure good water resources availability for hydropower production. Water shortage may occur in catchments in the East and south-eastern parts of the country.

Advisory

- Update basin management plan based on the forecast
- Conserve water use for pastoralists, energy production, and irrigation



Livestock

Risk of outbreaks of desert locusts, animal disease and likehihood of reduced forage and water. Drought conditions on watch in Borena zone and Somali region.

Advisory

- Conduct control measures for desert locust
- Conduct close monitoring of the season's performance
- Activate contingency plans for supplemental feeding and water

ETHIOPIA



Disaster Risk Management

Post-harvesting in northern Ethiopia is favored with the forecasted weather. Water and pasture availability might be affected in the south and south-eastern part of Ethiopia. The south-eastern part of the country may be affected by drought.

Advisory:

- Adopt irrigation/water conservation techniques in areas expecting dry conditions
- Store animal feeds for use during the dry period
- Adopt irrigation/water conservation techniques in areas expecting dry conditions
- Timely activation of the task force(s) on drought that involves the different sector ministries



Agriculture and Food Security

Good conditions for harvesting (Wheat, Maize, Sorghum, Tef, Beans) in highlands areas. Likelihood of frost in the highland areas

Advisory

- Farmers urged to undertake early land preparation and plant as soon as the season starts since its a short one
- Farmers urged to practice water harvesting for crop supplementary irrigation and for livestock use
- Farmers advised using climate and weather updates as provided by the national meteorological agency



Health

Likely impacts include a worsening in Malaria in areas with still better rainfall due to the enhanced role of rising temperature. Shortage of food and poor nutrition that come from a shortage of animal feed (most of the communities are pastoralists). Cholera and other diarrheal diseases associated with shortage of water.

Advisory

- Conduct health education, strengthening case management, and persistent use of mosquito nets.
- Avail animal feed and water to animals to improve dairy products
- Improve water supply for households and community possibly before the drought occur



Environment and Forestry

Likely impacts include depressed growth rates of trees and productivity due to low rainfall, an increased incidence of fires and their associated environmental consequences and reduced availability of water and pasture for wildlife and livestock.

Advisory

- Promote land management/landscape restoration areas affected by floods and drought
- Promote fire management practices - digging fire cutlines, firebreaks, early burning
- Promote forage/pasture management (rotational grazing, provision of alternative food eg hay)

KENYA



Disaster Risk Management

Much of Kenya is likely to be affected by drought (eastern, northern and coastal regions). A short season is expected in the western parts of the country. Central and western part may get floods and landslide. Intercommunity conflicts and human-wildlife conflicts due to limited resources as a result of depressed rainfall especially in ASALs.

Advisory:

- Conduct water trucking for livestock and domestic use
- Disseminate Alerts to people in drought-prone/continuing areas
- Encourage short maturing crops in central and western Kenya
- Activate in time the task force(s) on drought that involves the different sector ministries



Agriculture and Food Security

Poor crop prospects due to consecutive season failure in some areas of the country (Eg. Coastal areas). Poor food security situation and high Global Acute Malnutrition (GAM) rates especially for ASAL areas, reduced household purchasing power. More dependence on markets to access food instead of from farms and increases in food prices. Likely reduced post-harvest losses (in western parts of Kenya and north Rift).

Advisory

- Ensure provision of Fodder and Hay to farmers
- Provide water for domestic use (Water trucking) in the event of water shortages
- Conduct awareness-raising campaigns to prevent inter-communal conflicts
- Farmers are advised to plant drought-resistant and short cycle crops
- Provide necessary seed assistance
- Improve public food distribution strategy and ensure food assistance
- Communities encouraged to conduct Water harvesting
- Intensify drilling/Sinking of boreholes



Water and Energy

Water shortages for both urban and energy production especially towards the end of the season. There is also a low risk of flooding in a few areas. Likely further reduction in the lakes due below-average rainfall forecast.

Advisory

- Conduct water conservation practices
- Provide water trucking services to those in need of water and far from water sources
- Provide early warning information on potential risks



Livestock

Further deterioration of animal body conditions. Expected tension and conflicts among pastoralists arising from internal and external migration.

Advisory

- Implement MoU in cluster 1: Raise awareness of the MOU among communities
- Conduct vaccination of animals against notifiable disease
- Conduct strategic prepositioning of support to the livestock sector
- Undertake strategic offtake of animals to destock animals from farmers



Health

Expect Nutritional conditions related to food deficits especially in northern, north-eastern, parts of south-eastern Kenya. May experience an increase in water-washed diseases especially Trachoma and Scabies. Due to likely water shortage, expect an increase in enteric diseases related to poor hygiene Eg. Dysentery, Diarrhoea, Amoebiasis in most parts of the country. Heat stress and air pollution especially in ASAL areas, which may lead to acute dehydration and allergies. Expect reduced vector-borne infections especially mosquito-born Eg. Malaria, Dengue, Filariasis across the country. However, there may be increased malaria in areas along Kerio valley fed by springs from highland areas and small scale irrigation in along the valley.

Advisory

- Undertake rapid vulnerability assessment on food insecurity and risk to specific climate health conditions
- Provide food relief to vulnerable populations and food supplements to the most vulnerable Eg. children under 5 years, pregnant women, the aged, and people living chronic immunosuppressive conditions to address acute malnutrition
- Strengthen treatments services for trachoma and skin infections by provision medicines and sensitization of health providers
- Provide drinking and domestic water in ASAL through bowzers
- Undertake public and targeted risk communication to all vulnerable populations
- Undertake aggressive Public education and promotion of household practices to enable communities to carry out prevention practices and care-seeking



Environment and Forestry

Depressed growth rates of trees already planted in both natural and commercial plantation areas. Reduced natural regenerations of arid lands vegetation. Reduced forages and water available for wildlife, increasing human-wildlife conflicts. Increased wildfires due to consecutive depressed rains.

Advisory

- Invest on planting drought high tolerant tree crops
- Improve on drought support livelihoods by providing food to most affected communities
- Provide alternative for forage and water for wildlife
- Mobilize resources for Human-Wildlife conflicts control and management

SOMALIA



Disaster Risk Management

Back to back drought to get worse in the next season. Coastal areas are expected to receive minimal rains as this is not the main season. The second harvesting season may be affected by looming drought.

Advisory:

- Issue advisory bulletin depending on the expected drought degree
- Encourage Community-Based organizations and NGOs to support communities response initiatives
- Encourage Climate-smart agricultural practices and drought-resistant crops in cropping areas
- Activate in time the task force(s) on drought that involves the different sector ministries



Water and Energy

Water scarcity may be experienced in areas that are forecasted below-average precipitation particularly in the central and southern regions. There is a risk of riverine flooding.

Advisory

- Conduct water conservation practices to take the country through the dry season up to the next rainy season
- Provide water trucking services to those in need of water and far from water sources
- Provide flood risk awareness campaign to those at risk and coordinate with the DRM sector



Livestock

Outbreaks of animal diseases. Deterioration of animal body conditions. Insufficient pasture and water for animals.

Advisory

- Prepare and implement contingency plans for pastoralists
- Conduct strategic destocking



Health

Impacts could include serious shortage of water sources for both humans and Animals, outbreaks of Diarrhoea and Cholera. Displacements of population could lead to more IDPs. Potential serious shortage of food availability with resulting food insecurity and malnutrition. Risk of loss of human and animal lives.

Advisory

- Implement AWD/Cholera Preventive Measures and case management activities including enhancing surveillance and capacity building
- Conduct nutrition interventions based on the needs of the target population and groups.
- Undertake general food distribution
- Conduct water tracking



Water and Energy

Good water availability for productive sectors. Risk of riverine and flash flooding and prolonged water logging condition. Delayed/difficulties in dykes repair work due to wet ground/water logging condition.

Advisory

- Create awareness to communities that are at risk associated with floods due to enhanced rainfall forecast
- Provide early warning information on potential risks



Livestock

Good Pasture especially in the lowlands. Internal movement of pastoralists from high to lowlands for water and pasture resulting in conflicts between farmers and pastoral communities. Disease outbreak (Karamoja cluster).

Advisory

- Vaccination of animals and animal diseases
- Implement MOU in the cluster



Health

Malaria upsurge due to flooding in some parts of the country, favorable for vector-borne disease such as malaria. Risk of HEV (Hepatitis E Virus).

Advisory

- Assess current stock levels of malaria diagnostics (Rapid Diagnostic Tests) RDTs, medicines (ACTs Artemisinin combination Therapy), and LLINs (Long Lasting Insecticide Treated Nets).
- Stock up on malaria prevention (LLINs), diagnostics (RDTs), medicines (ACTs), and enhancing behavioral change communication for malaria prevention, prompt investigation, and initiation of treatment
- Conduct field missions to undertake technical verification of the trends in the affected counties



Environment and Forestry

Loss of water and pasture for wildlife and livestock, high incidences of fire outbreaks. Decrease in water levels in flooded areas.

Advisory

- Construct water points for wildlife and livestock
- Rangelands and fire management plan
- Promote land management/landscape restoration areas affected by floods



Disaster Risk Management

Migration of pastoralists could cause conflict with farmers mainly along the Nile river. Heat waves will affect people who don't have access to good housing. Bush fires due to high temperature may lead to wildlife migration to Kenya.

Advisory:

- Conduct seasonal monitoring with the help of the South Sudan Met. Office.
- Civil defense unit/fire brigade will be involved to handle bushfires issues
- Issue multi-hazard early warning bulletin upon consolidation of all advisories
- Conduct Awareness creation/training for communities on safety measures to undertake at the household level
- Mobilise resource with the support of partners in South Sudan
- Put in place the necessary contingency plans

SOUTH SUDAN

SUDAN



Agriculture and Food Security

Usually dry season. Good for harvesting of JJAS crops.

Advisory

- Government urged to provide fuel for the harvest of summer season crops
- Farmers/authorities urged to increase the area under irrigation



Water and Energy

Enhanced inflows into the White Nile due to enhanced rainfall in upstream catchments the previous seasons. Enhanced water storage due to the forecasted above-average June-August precipitation.

Advisory

- Update basin management plan based on the forecast



Livestock

Competition on grazing and water leading to the spread of animal diseases around watering points. Internal movements; from the South to the East. Most livestock usually move to the south but SS looks dry so this will be a tough season.

Advisory

- Conduct disease control measures. Most animals being residents, it will be easier especially for PPR and FMD
- Enhance vaccination campaigns
- Provide supplemental feeding using green fodder from the irrigation schemes



Health

Likely increase of Meningitis cases. Increase of Allergan's and bronchial Asthma due to sandstorm and skins diseases Eg. Scabies due to lack of water & Eye disease also due to lack of water. Except cases like dengue fever.

Advisory

- Conduct early detection of cases & treatment
- Undertake Meningitis vaccination campaign especially for vulnerable groups
- Raise awareness using of facemask
- Avail treatments for allergy eye disease & skin diseases treatments

UGANDA



Disaster Risk Management

Lake levels are rising and more rain will cause floods in the next seasons. Teso region/south-western/ Karamoja are like to be in drought crisis since the previous season performed poorly. Cattle rustling likely to continue in Karamoja due to expected drought. COVID19 cases are on the rise and may get worse due to the forecasted drought.

Advisory:

- Conduct an Appeal for the Karamoja area (WFP to step in with food and non-food items)
- Establish continuous plans to handle issues as they occur with regular updates to partners
- Issue early warning through the national TV
- Request to the government to access relief funds to support flood areas
- Adopt a multi-agency and multi-hazard approach for effective disaster risk reduction



Agriculture and Food Security

Potential increases in food production for Maize and Beans in central and northern parts of the country (Karamoja area). Crop pests and diseases Eg. Fall Armyworm. Low moisture will negatively affect crops. Low food production, some farmers might refrain from planting.

Advisory

- Farmers encouraged to practice water conservation techniques for supplementary irrigation
- Farmers urged to practice conservation agriculture Eg. Mulching
- Disseminate early warning information
- Households are advised to store food to beef up food stocks
- Agro dealers urged to distribute seeds that are drought resistant and early maturing



Water and Energy

Further reduction of Lakes water level possible due to forecasted below-average precipitation in the upstream catchments. There is a risk of riverine/flash flooding.

Advisory

- Continuous monitoring of the rivers and Lakes to avert disasters
- Provide early warning information on potential risks



Livestock

The movement of pastoralists in-country in search of pasture for animals may lead to conflicts. Animal disease outbreaks.

Advisory

- Use pasture strategically with caution
- Have peaceful country negotiations over water/grazing grounds
- Vaccination of animals moving in the country extensively (PPR)



Health

Persistent Malaria upsurge in some districts of Lango region Eg. Amolatar and Karamoja region in the districts of Nabilatuk, Obongi and Nepak. Also in Westinile and Acholi regions in the districts of Madiokolo, Lamwo, Ajuman, Apac, Amuru, Maracha, Terego, and Pader where malaria transmission is currently high. Cholera outbreak in some parts of Karamoja like Kotido and Moroto in case of low rainfall towards November and December (Water shortage). Possible Cholera outbreak in Kasese in case rainfall is high.

Advisory

- Share early warnings with the Districts, preposition malaria commodities, improve health education and surveillance of malaria cases, prioritize routine distribution of nets in the mentioned Districts
- Conduct health education, ensure availability of water (Kotido and Moroto), improve disease surveillance, buffer of cholera vaccine for Kotido, Kotido, and Kasese.



Environment and Forestry

Decline in forestry productivity associated with the forecast less rainfall. Increased cost of forestry production. Increased incidence of fires and their associated environmental consequences including pollution and threats to biodiversity.

Advisory

- Conduct early planting
- Planting of moisture-stress (drought) resistant varieties of trees
- Authorities should prepare for fire management including rehabilitation of burnt areas

BURUNDI



Agriculture and Food Security

High likelihood of a reduction in crop production and water Stress conditions. Delay of onset dates will delay the plantation period.

Advisory

- Farmers advised planting drought-tolerant and short-cycle crop varieties
- Government and farmers urged to promote small scale irrigation technologies for supplementary irrigation in the event of prolonged dry spells
- Farmers urged to undertake integrated Soil fertility management technologies
- Households urged to diversify to other livelihood and income-generating activities Eg. beekeeping



Water and Energy

Risk of water shortages as well as low risk of flooding. Reduction of Lake Tanganyika Water level.

Advisory

- Implement water conservation measures to take the country through the season
- Conduct continuous monitoring of the rivers and Lakes to avert disasters



Health

Decrease in agricultural production with all its consequences on health: increase in acute malnutrition. Decrease of vector-borne diseases like malaria. Diarrheal diseases due to the lack of water and after open defecation during JJA season which is dry in Burundi.

Advisory

- Support low-income households with food, strengthen the management of acute malnutrition
- Keep up malaria prevention and treatment interventions, as it's endemic and since we don't know the duration of the rains and their quantity over the whole season
- Observe and keep key components of WASH

RWANDA



Agriculture and Food Security

Good crop prospects like maize and beans in the western part of the country. Water stress in the central and eastern parts of the country. Likelihood of crop failure due to poor distribution of rainfall and below normal rains Delayed onset will negatively impact long cycle crops such as sorghum and maize in the eastern and southern regions.

Advisory

- Farmers urged to embrace water harvesting strategies
- Adopt multi-channel approach to provide early warnings to farmers (Eg. Radio, Social Media etc).
- Agro-dealers to distribute improved seeds (drought-tolerant crop varieties) and fertilizers on time
- Authorities advised promoting the value chain in the insurance scheme
- Authorities and farmers advised preparing flood mitigation measures in Sebeya catchment (western parts) including rehabilitation of drainages



Water and Energy

Water shortages may occur. There may be a low risk of flooding.

Advisory

- Conduct water conservation measures
- Conduct flood risk awareness campaign
- Coordinate with Disaster Risk Management Authorities

TANZANIA



Agriculture and Food Security

Likelihood of a reduction in pests and diseases for crops. This is an adequate time for farmers to prepare land. Good conditions for harvesting and storage of the winter crops (Eg. Maize, Beans). Low soil moisture thus affecting crop growth. Delayed onset will lead to delayed planting. Low production of food crops.

Advisory

- Farmers should prepare land early.
- Farmers encouraged to practice rainwater harvesting
- Farmers advised planting improved varieties tolerant to dry conditions through their ministry of agriculture and extension officers
- Farmers encouraged to practice conservation agriculture techniques such as terraces, mulching, tied ridges, contours, etc.
- Households advised to properly use available food stocks



Water and Energy

Water scarcity may be experienced in areas that are forecasted below-average precipitation.

Advisory

- Implement water conservation measures take the country through the dry season
- Conduct Continuous monitoring of the rivers and Lakes to avert disasters



Environment and Forestry

Loss of soil moisture due to drought, an increase of fire incidences. Loss of biodiversity, animal migration, and animal habitat destructions. Increase in Forest encroachment and deforestation.

Advisory

- Conduct fire management practices (Maintaining fire break and applying early burning)
- Introduce dams for water supplying for animals
- Increase forest patrols and forest extension knowledge



ICPAC

Contacts:

IGAD Climate Prediction and Applications Centre
www.icpac.net

Follow us on Social Media

- IGAD Climate Predictions and Applications Center
- @icpac_igad
- IGAD Climate Prediction & Applications Centre

ICPAC Members:

Djibouti | Eritrea | Ethiopia | Kenya | Somalia | South Sudan | Sudan | Uganda | Burundi | Rwanda | Tanzania