



**ICPAC**

**REPORT OF THE SIXTY-SIXTH GREATER HORN OF AFRICA CLIMATE OUTLOOK  
FORUM (GHACOF 66) FOR THE MARCH-MAY 2024 RAINFALL SEASON**

**20-21 FEBRUARY 2024**

**THEME: "CLIMATE SERVICES FOR ANTICIPATORY ACTION"**



*Group photo taken after the official opening of the forum*

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## **PREFACE**

The sixty-sixth Greater Horn of Africa Climate Outlook Forum (GHACOF66) took place virtually and in person from February 20th to 21st, 2024, at Speke Resort Munyonyo in Kampala, Uganda. Its primary objectives were to assess the performance and impacts of the October to December 2023 season, present a comprehensive regional climate outlook for the March to May (MAM) 2024 season, and discuss the implications of the MAM 2024 outlook on climate-sensitive socioeconomic sectors in the region.

The forum convened climate scientists, researchers, decision-makers, and stakeholders from various socioeconomic sectors, governmental and non-governmental organizations, development partners, and civil society. Preceding the main GHACOF66 event on February 20th, sector-specific workshops were held to focus on co-producing and co-designing climate services, assessing impacts and responses during OND 2023, learning lessons, and designing forecast-based interventions and mitigation measures for the upcoming season. Additionally, a week-long climate scientists' workshop, known as Pre-GHACOF, took place from February 12th to 17th, 2024, at ICPAC in Nairobi, where both regional and national objective seasonal forecasts were developed, with the regional forecast serving as the main input for GHACOF66.

Organized by the IGAD Climate Prediction and Applications Centre (ICPAC) in collaboration with the National Meteorological and Hydrological Services (NMHSs) of participating member countries, GHACOF66 was held within the framework of the IGAD regional strategy for mainstreaming climate information in vital socioeconomic sectors for disaster risk reduction and sustainable development, under the theme "Climate Services for Anticipatory Action." The event attracted a total of 191 online participants and 183 physical participants at the Speke Resort Munyonyo.

ICPAC emphasized its commitment to continuing the organization of GHACOFs as an effective platform for enhancing dialogue among producers, users, and all actors along the climate services value chain. It aims to proactively innovate and improve efforts to deliver better services and build resilience in the region.

Guleid Artan (PhD)

ICPAC Director

## **EXECUTIVE SUMMARY**

ICPAC organizes GHACOFs 3 times a year to provide climate outlook for the 3 main rainfall seasons (MAM, JJAS, OND) in the region. COVID-19 pandemic brought about the shift in how these workshops are held with current formats being hybrid. The workshop adopted different formats of interaction including presentations in plenary and group discussions. The GHACOF65 workshop held in Nairobi comprised of fully in-person participation during the first day and a hybrid format on the second day. The forum was supported by the European Union funded Climate Services and related applications (ClimSA), CONFER, IFRAH-Emergency Desert Locust Response Project, DRM, AICCRA, Down2Earth, UKMO/FCDO WISER grant support Migration Project HQ, SC II Djibouti and the Government of Uganda

The forum was held within the framework of the IGAD regional strategy for mainstreaming climate information into key socioeconomic sectors for resilience and sustainable development. It brought together representatives from National Meteorological and Hydrological Services (NMHSs), global climate centers, regional partners, decision-makers, and users from critical socioeconomic sectors. The government of Uganda was represented by the director Uganda National Meteorological Authority. The forum provided a structured means for users, researchers, and climate services providers to interact at the regional level to ensure that user needs for the seasonal prediction are met.

# **1. Strengthening Community Resilience Through Anticipatory Action: Experiences from the El Niño response in Somalia**

In 2023, Somalia faced severe repercussions due to El Niño event that happened during the October to December season causing widespread havoc. Responding to these challenges, SODMA took proactive measures by soliciting support and establishing a framework dedicated to mitigating the impacts of floods. Recognizing the paramount importance of equitable access to early warning information, SODMA adopted a multi-faceted partner approach termed as Anticipatory Action (AA), emphasizing the need for collaborative efforts. Prioritizing areas vulnerable to flooding, particularly along the Juba River, was pivotal in guiding response strategies, with inputs from government bodies and stakeholders. To ensure swift action, approximately \$4.2 million was pre-positioned for disaster relief efforts. Within the framework of AAP, prioritized impacts were identified, facilitating targeted actions. Substantial progress was made, with four out of five prioritized actions successfully implemented. Notably, outreach efforts were extensive, with around 440,000 individuals receiving early warning messages and 219,000 households benefiting from unconditional cash assistance, demonstrating a concerted effort to address the challenges posed by natural disasters effectively. From this successful implementation of AA, it was learned that government buy-in as well as multi-Agency collaboration are key.

## **2. Looking Back: October to December (OND) 2024 seasonal forecast**

### **2.1 State of the Climate OND 2023**

In 2023, the region experienced significant anomalies in rainfall patterns, with some areas receiving up to 1000mm of rainfall especially across Somalia, Kenya, Tanzania, and Burundi. These regions observed wetter than normal conditions, marked by an increase in the number of wet days and heavier than usual rainfall. Additionally, moderate to extremely wet conditions were noted based on the Standardized Precipitation Index (SPI) over western and southern Ethiopia, Somalia, and South Sudan. The Madden-Julian Oscillation (MJO) played a crucial role, being in phases 1, 2, 3, and 4 during November, December, and January, contributing to enhanced rainfall in the region. Moreover, a delayed onset of rainfall was observed over parts of

Kenya, Somalia, Tanzania, and Uganda, further complicating the weather patterns and exacerbating the impact of the extended rainy season. These complex weather phenomena underscored the variability and challenges associated with managing extreme rainfall events in the region.

## **2.2 Sectoral impact assessment**

### **2.2.1 Livestock and rangeland**

The report from Somalia, Kenya, Uganda, and Djibouti countries indicates a notable trend of heavy rainfall, with the exception being most parts of Djibouti where rainfall was below average. This had significant economic implications, with an increase in terms of trade observed alongside a decrease in staple food prices. In Djibouti specifically, the below-average rainfall led to increased livestock mobility because of limited pasture availability. Meanwhile, in Somalia, heavy rainfall resulted in the displacement of pastoral and agro-pastoral communities, exacerbating existing challenges. Additionally, there has been an upsurge in livestock diseases across the region, further highlighting the multifaceted impacts of the variable rainfall patterns on livelihoods and agricultural systems

### **2.2.2 Agriculture and food security**

Across various countries in the region, good production is anticipated, signalling positive agricultural outcomes. Post-harvest conditions varied, with dry conditions in Ethiopia proving favourable weather for harvesting activities. However, challenges were encountered in countries such as Kenya and Rwanda during the post-harvest period. Croplands in parts of Somalia, South Sudan, and Burundi were adversely affected by flooding, disrupting agricultural activities. Additionally, pest and disease outbreaks were widespread throughout the region, posing threats to crop yields. In Ethiopia, regions such as Tigray and Amhara experienced drought conditions, further exacerbating agricultural challenges. Conflict-induced displacement in Sudan disrupted agricultural activities, while cases of desert locust infestations were reported in Somalia and Ethiopia, highlighting the complex array of factors impacting agricultural productivity and food security in the region.

### **2.2.3 Health Sector**

The report from Kenya, Somalia, South Sudan, and Ethiopia highlights several significant developments. In South Sudan, there has been a notable reduction in

malaria cases, indicating positive strides in public health efforts. Somalia has seen an improvement in the nutrition status of its population, suggesting progress in addressing food security challenges. Across the region, there has been an enhancement in both access to and the quality of water resources, which is crucial for various aspects of livelihoods. Furthermore, efforts to ensure food security and water availability have shown positive outcomes. However, amidst these advancements, the region has also faced challenges. Flood-related incidents have resulted in considerable loss, with 65 reported deaths and over 616,000 people displaced. Additionally, Ethiopia has reported cases of dengue fever, while about 10 districts in Somalia have experienced outbreaks of cholera. These challenges underscore the ongoing need for comprehensive disaster management and public health interventions to address both immediate and long-term risks faced by communities in the region.

#### **2.2.4 Water and Energy Sector**

The report from the 10 countries highlights a range of impacts on water resources and energy generation across the region. Positive effects include an increase in water levels, resulting in improved water supply for domestic use, irrigation, and livestock management. Stable power generation has been observed in areas where water levels have risen, ensuring consistent electricity supply. Ethiopia has capitalized on strong winds for wind power generation, contributing to the diversification of energy sources. However, alongside these positive developments, negative impacts have also been reported. South Sudan has experienced increased evaporation rates, leading to water loss and potential challenges for water availability. Somalia and Kenya have witnessed an uptick in mudslides and soil erosion due to intensified rainfall, posing risks to infrastructure and communities. Additionally, Ethiopia has faced hydrological drought conditions, affecting water resources and agricultural productivity. Sudan has encountered a delayed onset of the winter season, potentially disrupting seasonal activities and agricultural cycles. These findings underscore the complex interplay between climatic factors and their impacts on water resources, energy production, and socio-economic activities across the region.

#### **2.2.5 Disaster Risk Management Sector**

The report from Kenya, South Sudan, Uganda, and Somalia outlines several key developments. In Kenya, certain regions have experienced road closures due to adverse weather conditions, disrupting transportation networks. Additionally, both

Kenya and Somalia have witnessed significant displacement of populations, likely due to natural disasters or conflicts, prompting emergency declarations in these countries. In response to anticipated flooding, Somalia has activated proactive measures, including cash transfer programs, to mitigate the impact on affected communities. Moreover, heightened surveillance for waterborne diseases has been implemented across the region, reflecting proactive efforts to address potential health risks associated with flooding and displacement. These actions underscore the importance of coordinated response efforts and early intervention strategies to safeguard communities and infrastructure amidst challenging circumstances.

### **Discussions and Questions**

Estimated loss because of post-harvest? Only qualitative results for now and quantitative results will come to estimate the loss due to post-harvest loss

South Sudan was not captured in State of climate Africa – clarification?

Snake bites were recorded in South Sudan but might not have been shared.

Need to address the impacts recorded going forward by having inform advisories

Sudan needed to be captured on the sectoral reports – despite the ongoing situations.

Things have been destroyed and nothing can be captured.

For water sector - how did you manage to reduce the impacts from rising water levels?

Water is not released at once to avoid flooding in the lower regions of the lake. The hydrological drought captured for Ethiopia could be attributed to JJAS season not performing well.

Health sector – what led to reduction of malaria cases especially in South Sudan?

Agriculture sector – drought cases reported in Tigray and Amhara in Ethiopia. Need to note that OND is not the main season. Drought reported was a result of performance of seasons before OND and hence, cannot be linked with OND season fully.

## **3. Opening Ceremony**

Dr. Bob Alex, the acting Executive Director of the Uganda National Meteorological Authority and the Permanent Representative of Uganda with the World Meteorological



Organization (WMO), opened the event with welcoming remarks. Expressing gratitude to the present leaders, he extended heartfelt thanks to the Intergovernmental Authority on Development Climate Prediction and Applications Centre (ICPAC) for selecting Uganda as the host country for the 66th Greater Horn of Africa Climate Outlook Forum (GHACOF) on the March-April-May (MAM) season. Dr. Alex acknowledged ICPAC's pivotal role in supporting meteorological services across the region through capacity building and guiding regional forecasts. He also thanked the WMO for its continuous support to national meteorological services, emphasizing the importance of standardizing meteorological services and establishing national frameworks for Weather, Water, and Climate Services. Dr. Alex highlighted Uganda's initiation of its National Framework with the support of ICPAC through the CLIMSA project. Stressing the significance of Early Warning Information (EWI) on weather and climate, he underscored its vital role in planning and decision-making processes, albeit calling for substantial investment in modern equipment, staff capacity building, and media collaboration to effectively reach grassroots communities. Dr. Alex expressed appreciation to the Government of Uganda for its unwavering commitment to improving climate services, citing investments in modern equipment and staff capacity building. He highlighted significant advancements, including the acquisition of modern radars and increased automated weather observation systems. Furthermore, Dr. Alex expressed gratitude to development partners for their steadfast support and extended appreciation to the media for ensuring the dissemination of EW information to the last-mile users, thereby enhancing community resilience and disaster preparedness.

Dr. Guleid Artan, the Director of the Climate Prediction and Applications Centre (ICPAC), delivered these insightful remarks. Acknowledging the Permanent Representatives (PRs) of National Meteorological and Hydrological Services (NMHSs), he extended a warm welcome to all participants to the 66th Greater Horn of Africa Climate Outlook Forum (GHACOF). Gratitude is owed to the Government of Uganda for graciously hosting GHACOF 66, emphasizing the theme's focus on preparedness and proactive measures in mitigating climate-related disasters. Underscoring the indispensable benefits of timely and accurate early warning systems for the region, we reflect on their role in saving lives and livelihoods. The Greater Horn of Africa (GHA) remains highly vulnerable to climate variability, having endured three major droughts and two major flooding seasons in the last 12 years. Timely forecasts

empower communities, governments, and humanitarian agencies to anticipate events and implement proactive measures. Effective early warning systems bolster community resilience by providing actionable information ahead of time, enabling climate-smart agriculture and resilience infrastructure investments. Additionally, anticipatory action in Disaster Risk Management (DRM) facilitated by early warnings can significantly reduce human suffering and economic loss. GHACOF66 is pivotal in our collective efforts to address climate change and variability effects in the region, offering a platform for knowledge exchange, collaboration, and action. ICPAC's role in providing timely climate information is commendable, while IGAD's launch of the Regional Adaptation Agenda Framework during COP28 underscores regional commitment to adaptation. Appreciation is extended to NMHSs, Disaster Management Agencies, and partners for their dedication and collaboration in addressing climate challenges. GHACOF's contributions to climate information improvement for DRM are invaluable, with seasonal forecasts aiding early action systems at national and regional levels. Gratitude is also extended to partners for their support, both technically and financially, without which these efforts would not be possible. Let us seize this opportunity to exchange knowledge, share best practices, and forge partnerships to build resilience and adapt to climate change in the region

Mr. Apuuli Bwango, the Chairperson of the Board at Uganda National Meteorological Authority who was the guest of honour representing the Minister of Water and Environment, warmly welcomed all participants to GHACOF 66. He expressed sincere appreciation for their attendance and acknowledged the significance of hosting the 66th GHACOF in Uganda, noting that Uganda hosted one of the first workshops of COF in 1999. Mr. Apuuli commended the efforts of ICPAC and the partners involved in organizing the forum, recognizing it as a testament to the power of collective action. He highlighted the profound impact of weather and climate change patterns on rainfed agriculture, emphasizing the unprecedented challenges faced by communities in the region. Citing the latest findings from the Intergovernmental Panel on Climate Change (IPCC), Mr. Apuuli underscored the escalating threats and crises posed by prolonged droughts, floods, landslides, and erratic rainfall patterns. Stressing the interconnection between water and the environment, he emphasized the imperative of sustainable natural resource management for future prosperity. Mr. Apuuli affirmed his ministry's commitment to implementing robust policies and initiatives aimed at promoting climate

resilience and conserving precious ecosystems. Recognizing that addressing climate variability and change requires collective effort, he emphasized the need for bold leadership and steadfast commitment from all sectors of the government. Mr. Apuuli applauded the collaboration between ICPAC and the Uganda National Meteorological Authority (UNMA), highlighting its fundamental role in addressing climate-related hazards. He underscored the importance of establishing a structured framework to strengthen institutional capacity, empower communities, and foster resilience. Mr. Apuuli emphasized that climate change intertwines with development, security, and social wellbeing, highlighting the pivotal role of climate services in informing decisions and adaptation strategies. He urged participants to seize the opportunity to forge new partnerships guided by the principles of collective engagement and sustainability. He declared the GHACOF66 officially open.

#### **4. State of the Climate: March to May (MAM) 2024 Seasonal Forecast**

This session, led by Dr. Stefan with support from Rosanna Amato, both from the UK Met Office, delved into the state of global climate systems and their anticipated impacts for the upcoming season. Key messages highlighted included the record warmth experienced globally in 2023, attributed to factors such as global warming, El Niño, Warm Atlantic conditions, and the Tonga eruption. The Met Office outlook suggests that global temperatures in 2024 are likely to surpass those of 2023. Regarding the current state of the El Niño-Southern Oscillation (ENSO), sea surface temperatures (SSTs) remain above average in the central and eastern Pacific, albeit showing signs of cooling. While El Niño is expected to persist during the March-April-May (MAM) season, it is anticipated to weaken over time. Caution is advised when interpreting ENSO outlooks due to the "Spring predictability barrier," which can pose challenges for forecasting during the boreal winter. The Indian Ocean Dipole (IOD) is currently in a neutral phase, expected to persist or become slightly positive by the end of MAM. Historically, ENSO and the IOD have shown minimal impact on MAM rainfall in East Africa. The Madden-Julian Oscillation (MJO) can influence wetter or drier conditions for the region, although its predictability is limited to a few weeks. Updated seasonal and monthly forecasts incorporating the MJO should be reviewed regularly. Additionally, the South-West Indian Ocean Tropical Storm season is projected to be

close to normal. These insights provide valuable guidance for anticipating and adapting to climate variability in the upcoming season.

## **Q&A**

A participant asked whether other drivers of variability are considered in generating the current forecast? Stefan responded that in regard to the relevance of ENSO and IOD on EA rainfall: No signal between ENSO and EA rainfall which is why it is hard to forecast EA rainfall during MAM. Impact of ENSO should be considered for specific seasons

Another participant wanted clarification on the forecast for Djibouti and it was noted that MAM is not the main rainfall season for Djibouti, it is how we interpret the seasonal rainfall (based on the seasonal climatology)

About the Tonga eruption that led to increase in temperature, a participant wanted to understand how long this will take until the effect reduces? Tonga eruption contributing to enhanced temperatures in 2023: January 2022, the eruption was underwater, forced water vapour into the atmosphere, potent GHG. Impact of the Tonga eruption to return to normal in three years.

Information on Cessation of season was asked for and it was pointed out that although Cessation information is produced, it is not shared with users due to poor skill.

## **5. Partnerships/ Projects / Initiatives for Resilience Building**

Dr. Pedram provided insights into the Strengthening Pastoral Livelihoods in the Greater Horn Through Effective Anticipatory Action (PASSAGE) project, highlighting its recent commencement and objectives. The project aims to assess the impact of policies and decision-making on countries within IGAD Clusters 1, 2, and 3. One key component is the Climate Adaptation and Resilience (CLARE) framework, focusing on Risk-informed Early Action with a strong emphasis on gender inclusion to enhance resilience. Anticipatory action, anticipating hazards and implementing mitigation measures, is central to the project's approach. A primary goal is the development of Impact Based Forecasting (IBF), shifting from weather predictions to understanding the environmental and societal impacts. Anticipatory actions include social protection, borehole repairs, provision of fodder, and resource negotiation, tailored to specific

contexts. The project leverages local community engagement to create Risk Narratives, enhancing understanding and preparedness. Capacity building initiatives will extend to communities, researchers, institutions, and practitioners, ensuring sustainable outcomes and effective responses to climate challenges in the region.

Dr. Erik Kolstad provided an overview of the transition from the Climate Services in CONFER project to the ACACIA project. CONFER is funded by the European Union Horizon 2020 and focused on co-developing climate services for water, energy, and food security, with a significant emphasis on co-production, allocating about 25 percent of resources to this aspect. Identified needs included river streamflow prediction, flood risk hotspots, improved rainy season onset, and modelling of crop yield and health, integrating with existing tools like the East African Hazard Watch. Currently, two projects run alongside CONFER: the Down To Earth project and the upcoming ACACIA project. ACACIA, launching in October 2024 with the same partners, will concentrate on Ethiopia and Madagascar, aiming to enhance the resilience of at-risk communities in Sub-Saharan Africa to climate impacts, particularly floods and tropical cyclones. It will focus on improving the production, communication, and utilization of climate services for short- and long-term decision-making. Additionally, Kolstad mentioned the CATER schools program, scheduled from 2023 to 2028, which offers 10-day schools on climate action for students, researchers, and practitioners, fostering collaboration and knowledge exchange in climate resilience efforts.

Mr. Byaganda Livingstone presented on the Building a Stronger Tomorrow- Enhancing Climate Change Resilience in East Africa (ECREA) project, building upon the successes of the WISER project. The project aims to enhance the resilience and adaptive capacity of East African countries through the access and utilization of accurate and timely co-produced climate information. Two main approaches are employed: co-production of Weather and Climate Information Services (WCIS) and Impact-Based Early Warning Systems (IBEWS) in collaboration with key stakeholders such as ICPAC, National Meteorological and Hydrological Services (NMHSs), and Technical Assistance Providers (TAP) and National Agricultural Research Systems (NARS). The project directly benefits approximately 400,000 smallholder farmers producing beans, with an additional 3 million beneficiaries indirectly impacted. Delivery methods involve dissemination from bean hubs to Agricultural Action Advisories,

Regional Learning Centers (RLCs), and Participatory Integrated Climate Services for Agriculture (PICSA) to ensure information reaches the community level. Furthermore, the project prioritizes gender equality and social inclusion (GESII) by empowering women's voices in leadership and governance positions, as well as enhancing their participation and access to technologies and information. ECREA represents a significant step towards building a more resilient and sustainable future for East Africa in the face of climate change challenges.

Mr. John Mungai provided an overview of the Wiser Project spanning from 2022 to 2025, highlighting its evolution since its inception in 2016 and its impact across regional, national, and community levels. The overarching goal of the Wiser Project is to bolster community resilience to the impacts of climate change by supporting the generation, uptake, and utilization of weather and climate services for informed decision-making. In its new phase, the Wiser Project embraces several key approaches, including co-production, gender equity and social inclusion, partnership, innovation, and lesson learning. This phase of the project encompasses five essential elements: global initiatives, regional activities, core granted projects, small grants, and regional projects. By integrating these approaches and elements, the Wiser Project aims to enhance the accessibility and effectiveness of weather and climate services, ultimately contributing to more resilient communities and better-informed decision-making processes across the regions it serves.

Andrew Malinga presented on the intricate relationship between climate change and conflict in the region, drawing insights from an analysis conducted by CEWARN. The analysis revealed empirical evidence linking climate variability to conflict, particularly noting the significant influence of vegetation health on conflict outcomes. Notably, a one-month lag in impact was observed, allowing for anticipatory action. For instance, analysis of the March-April-May (MAM) season in clusters 1, 2, and 3 showed sustainable grazing conditions but also revealed water stress in certain areas like Cluster 3. Hotspot areas such as South Sudan and Turkana in Kenya were identified due to isolated water resources, potentially leading to violent conflicts in the absence of alternative water sources. Conversely, areas with evenly distributed green vegetation were found to have reduced conflict, migration, or transhumance activities, facilitating peaceful geographical spread of livestock grazing. However, violent conflict incidents were deemed more likely in areas characterized by inter-communal turmoil.

Despite predicting a status-quo conflict for the MAM season, continuous monitoring is crucial, as climate factors may exacerbate underlying tensions, potentially leading to conflict escalation. This analysis underscores the importance of understanding the climate-conflict nexus and implementing proactive measures to mitigate conflict risks in vulnerable regions.

## **6. Looking ahead: March to May 2024 Seasonal Forecast Implications**

### **6.1 Livestock and rangelands**

In the upcoming March-April-May (MAM) 2024 season, several positive impacts are anticipated in the livestock and rangelands sector across Djibouti (DJ), Ethiopia (ET), Kenya (KE), Somalia (SOM), South Sudan (SSD), and Uganda (UG):

- Favourable conditions for pasture and forage regeneration are expected to contribute to conservation efforts, reducing the need for livestock mobility in search of water and pasture. This will lead to decreased competition over resources among livestock herds.
- Anticipated increased availability of water and improved water harvesting techniques will enhance water access for livestock and agricultural activities, promoting resilience against drought conditions.
- Improved pasture and water resources are expected to support livestock health and productivity, consequently enhancing food security and nutrition for communities dependent on livestock products.
- Predicted warmer temperatures are expected to lead to reduced incidences of pneumonias among livestock, contributing to overall animal health and welfare.
- Favourable environmental conditions are anticipated to facilitate increased livestock production and productivity, including meat, milk, hides, and skins, benefiting local economies and livelihoods.
- The stable availability of livestock products, coupled with improved productivity, is expected to result in stable or improved prices, benefiting both producers and consumers in the livestock market.
- Favourable environmental conditions will support vaccination efforts and contribute to reducing outbreaks of TADS, enhancing animal health and disease management.

- Djibouti and Somalia are anticipated to benefit from favourable conditions for strategic restocking efforts, enabling the replenishment of livestock herds and supporting livelihood recovery in these regions.
- In Kenya, good pasture and water availability are expected to contribute to improved wildlife health and reduced incidences of human-wildlife conflict, fostering coexistence between communities and wildlife in rangeland areas.

### **MAM 2024 summary of negative impacts**

- Outbreak of waterborne diseases, internal parasites, and Transboundary Animal Diseases (TADs): The onset of the rainy season may lead to outbreaks of waterborne diseases, internal parasites, and TADs, posing significant health risks to livestock populations in affected areas.
- Outbreak of Rift Valley Fever (RVF) and other vector-borne diseases: Kenya (KE) and Uganda (UG) are particularly susceptible to outbreaks of Rift Valley Fever (RVF) and other vector-borne diseases, which can have detrimental effects on both human and animal health.
- Reduced pastures in areas with below-average rains: Regions experiencing below-average rainfall may suffer from reduced pasture availability, prompting increased movement of livestock in search of pasture and water. This could lead to land degradation and overgrazing, exacerbating environmental challenges in affected areas.
- Higher competition and potential conflict due to migration: In areas experiencing inadequate pasture due to minimal or no rainfall, heightened competition for resources may occur, potentially leading to conflicts among pastoral communities as they migrate in search of suitable grazing areas.
- Livestock deaths due to flash floods: South Sudan (SSD) and Ethiopia (ET) are particularly vulnerable to livestock deaths caused by flash floods, which can occur during heavy rainfall events, resulting in significant losses to livestock populations and livelihoods.
- Higher chances of desert locust invasion: Djibouti (DJ) and Ethiopia (ET) face a higher risk of desert locust invasion, especially if other conducive conditions are present. Desert locust infestations can devastate crops and pasture lands, posing serious threats to food security and livelihoods in affected regions.



## **Advisories and Mitigation measures**

- Promote conservation of excess pasture and water: Encourage communities to conserve excess pasture and water resources during periods of abundant rainfall to ensure sustainability and resilience in the face of future climate variability.
- Enhance disease surveillance, especially for Transboundary Animal Diseases (TADS): Strengthen disease surveillance systems to detect and respond promptly to outbreaks of TADS, safeguarding livestock health and preventing economic losses.
- Promote strategic restocking: Support strategic restocking initiatives in Djibouti (DJ) and Somalia (SOM) to replenish livestock herds and enhance community resilience against climatic shocks.
- Create community awareness about expected rains: Raise awareness among communities about anticipated rainfall patterns to enable timely actions such as planting fodder crops, vaccinating animals, and implementing water harvesting techniques.
- Increase Meteorological Services' awareness about desert locust presence: Enhance awareness among Meteorological Services (MSs) in Ethiopia (ET) and Djibouti (DJ) about the presence of desert locusts, enabling proactive measures to mitigate potential impacts on agriculture and livestock.
- Follow ICPAC monthly updates: Encourage countries to follow the monthly updates provided by the Intergovernmental Authority on Development Climate Prediction and Applications Centre (ICPAC) to stay informed about climate forecasts and make informed decisions.
- Activate pre- and post-migration peace committees: Facilitate the activation of pre- and post-migration peace committees to mitigate conflicts between pastoralists, farmers, and wildlife, promoting peaceful coexistence and conflict resolution mechanisms.
- Improve access to early warning messages: Enhance access to early warning messages and build the capacity of communities to understand and interpret these messages effectively, empowering them to take timely and appropriate actions to mitigate risks and enhance resilience.

## **6.2 Agriculture and food security**

- Normal to early onset conducive for early planting: Most parts of the region are expected to experience a normal to early onset of the rainy season, providing favourable conditions for early planting activities.
- Expected wetter than normal conditions: Anticipated wetter than normal conditions are likely to contribute to good soil moisture levels, facilitating agricultural activities and potentially stabilizing or decreasing food prices. This could lead to overall improvements in food security across the region.
- Vegetable and fruit production: Djibouti (DJI) and South Sudan (SSD) are expected to see increased production of vegetables and fruits, enhancing food diversity and nutritional outcomes.
- Recharge of water points: The anticipated rainfall is expected to lead to a good recharge of water points, providing reserves that could be utilized during periods of deficits, ensuring sustained agricultural productivity.
- Favourable cultivation of long maturing crops and fodders: In Ethiopia (ETH), conditions are favourable for the cultivation of long maturing crops such as maize and sorghum, as well as for the production of fodders, supporting livestock rearing activities.
- Likelihood of good crop production: Several countries including Kenya (KEN), Ethiopia (ETH), Rwanda (RWD), Burundi (BUR), Somalia (SOM), South Sudan (SSD), and Uganda (UGA) are expected to experience a general likelihood of good crop production, contributing to food security and livelihoods.
- Increased acreage under crop production: The conducive season is likely to encourage farmers to expand the acreage under crop production, potentially increasing agricultural outputs and boosting rural incomes.
- Dry and warm conditions conducive for harvesting: In Sudan (SDN), dry and warm conditions are expected to facilitate the harvesting of winter crops such as wheat, garlic, and spices, ensuring timely harvests and market availability.

### **Expected negative sectoral impacts for MAM 2024**

- Possibility of flood and soil erosion: Areas lacking proper land management technologies/practices, such as parts of BUR, DJI, western and southwestern ETH, KEN, RW, SSD, and UGA, may face flood and soil erosion incidences, negatively impacting croplands and agricultural productivity.

- Crop damage due to excessive soil moisture: Resulting excessive soil moisture could lead to crop damage, particularly affecting tuber and root crops, compromising yields and food security.
- Leaching of soil nutrients: Increased rainfall may lead to the leaching of soil nutrients, reducing soil fertility and affecting crop growth and yields.
- Disruption of food distribution and market access: Floods and soil erosion could cut roads, disrupting the distribution of food and food aid and making farms and produce markets inaccessible, particularly in DJI, KEN, and SOM.
- Likelihood of post-harvest losses: Irrigated crops, especially irrigated wheat in Ethiopia (ETH), may face post-harvest losses due to the excess moisture and associated challenges in harvesting and storage.
- Prevalence of crop pests and diseases: Enhanced rains and warmer temperatures may lead to a higher prevalence of crop pests and diseases regionally, posing risks to agricultural productivity and food security.
- Risk of locust swarms and quelea birds: Regions such as DJI, ETH, KE, SOM, RWD, and SSD may face the risk of locust swarms and quelea birds, along with other pests and diseases, threatening crop yields and livelihoods.
- Weed growth increasing farm management costs: Uganda (UGA) may experience a high rate of weed growth, increasing the cost of farm management and posing challenges for crop cultivation and maintenance.

#### **Key response measures/advisories**

- Early dissemination of Climate Information Services (CIS): Utilize existing platforms such as the National Climate Outlook Forums (NCOF), agricultural extension systems, and other channels for timely dissemination of climate information, particularly in Burundi (BUR), Djibouti (DJI), and the wider region.
- Crop/seed selection: Given the expected wet season, farmers and agricultural bodies should pay proper attention to crop and seed selection, choosing high-yielding, context-specific certified varieties suitable for their local contexts.
- Facilitate seed distribution: Governments should facilitate timely distribution or prepositioning of recommended seeds and other inputs, ensuring availability to farmers in need across the region.

- Promotion of Integrated Pests and Diseases Management (IPDM) technologies: Promote IPDM technologies to mitigate the risk of crop pests and diseases in Burundi (BR), Ethiopia (ETH), and Tanzania (TZ).
- Soil erosion control measures: Promote the establishment or rehabilitation of soil erosion control structures such as hedgerows, ditches on contour lines, progressive and radical terraces, and gabions in affected regions.
- Rainwater harvesting: Encourage the adoption of rainwater harvesting technologies for use during drier conditions in Burundi (BUR), Kenya (KEN), and Rwanda (RWD).
- Rehabilitation of irrigation infrastructure: Rehabilitate irrigation infrastructure and water reservoirs to enhance water storage capacity, ensuring adequate water supply for agricultural activities.
- Integration of climate information into decision-making: Governments are urged to integrate climate information into insurance, credit provision, crop monitoring, and yield forecasting systems at a regional level.
- Disease and pest monitoring: Conduct regular monitoring and surveillance on diseases and pests, including Desert Locusts (DL), to mitigate their impact on agricultural productivity across the region.
- Utilization of non-utilized land: Maximize the utilization of non-utilized land for seasonal crop cultivation, particularly in areas with available arable land.
- Training on agronomic practices: Provide training to farmers on proper agronomic practices, including land preparation, water harvesting techniques, and other practices to optimize agricultural productivity, especially in Sudan (SDN).
- Conflict resolution efforts: Concerted efforts are urged to end the conflict in Sudan to enable farmers to resume normal farming and pastoral activities in the region.
- Humanitarian support: Provide continued humanitarian support to regions facing food insecurity due to various shocks, including conflict, and stay updated with the Food Security and Nutrition Working Group (FSNWG) monthly updates in Somalia (SOM) and Sudan (SDN).

### **6.3 Health Sector**

#### **Expected positive sectoral impacts for MAM 2024**

- Improved nutrition: Wetter conditions leading to increased productivity of food crops in South Sudan (SSD) and Uganda (UGA) are expected to improve nutrition levels, particularly among vulnerable populations.
- Increased availability of water: The wetter conditions will result in increased availability of water for domestic use in Uganda (UGA) and Kenya (KEN), thereby reducing the workload burden, especially on women and girls.
- Improved nutritional status: Inhabitants of the Shabelle and Juba River basins in Somalia (SOM) are expected to experience improved nutritional status due to enhanced crop production resulting from favorable weather conditions.
- Food availability: Central, rift, and western Kenya (KEN) are anticipated to have increased food availability, leading to improved nutritional status and enhanced immunity against illnesses among the population.
- Yellow Fever outbreak: Above-normal rainfall in some areas of South Sudan (SSD) is likely to create breeding sites for the yellow fever vector, increasing the risk of Yellow Fever transmission.
- Meningitis: Drier conditions in the northern part of South Sudan (SSD) and Djibouti (DJI) may contribute to the spread of meningitis.
- Cholera and Malaria: Districts and counties in Uganda (UGA) and Kenya (KEN) such as Apac, Oyam, Bududa, Kasese, and Budibugyo are expected to experience an increase in cholera and malaria cases due to the wetter conditions.
- Waterborne diseases: Increased incidence of waterborne diseases, including dysentery, watery diarrhoea, and cholera, is anticipated in Kenya (KEN) due to the wetter conditions.
- Undernutrition and malnutrition: Shortages of food in northern states of South Sudan (SSD) may lead to undernutrition and malnutrition among the population.
- Landslides and domestic violence: Landslides may result in deaths, displacement, trauma, and increased domestic violence, particularly in Uganda (UGA), due to stress and the burden of care work, which disproportionately falls on women and girls.

- Malnutrition among nomadic communities: In Somalia (SOM), malnutrition is expected to be a concern among children and women living in nomadic communities due to food shortages.
- Heat stress: Heat stress may be experienced in Ethiopia (ETH), Djibouti (DJI), and South Sudan (SSD) due to warmer-than-average temperatures.

### **Key response measures / advisories**

#### **Malaria:**

- Prepositioning of antimalarials and RDTs to state and district hubs in Uganda (UGA), South Sudan (SSD), and Kenya (KEN).
- Distribution of mosquito nets to families in Uganda (UGA), South Sudan (SSD), and Kenya (KEN).
- Planned focalized IRS (Indoor Residual Spraying) and larviciding in Points of Congestion (PoC) and refugee camps in South Sudan (SSD).
- Sharing of advisories with stakeholders at all levels in Kenya (KEN) and Djibouti (DJI).
- Awareness creation and social mobilization campaigns in Ethiopia (ETH) and Kenya (KEN) to educate communities about malaria prevention.

#### **Rift Valley Fever:**

- Planning for vaccination and enhanced surveillance at all levels in South Sudan (SSD) and Ethiopia (ETH).
- Environmental management of breeding sites to control mosquito populations in South Sudan (SSD) and Kenya (KEN).

#### **Shortage of clean water:**

- Distribution of hygiene and sanitation kits, water purification tablets, and water trucking where possible in Somalia (SOM) and Kenya (KEN).

#### **Meningitis:**

- Planning for mass vaccination against meningitis in South Sudan (SSD) and Djibouti (DJI).

## 6.4 Water and Energy Sector

### MAM 2024 forecast impacts and mitigation

Basin/Sub basin	Streamflow Forecast	Implications	Proposed Key Response measures
Juba, Shebelle, Dawa, Ogaden (ET,SO,KE)	Near Normal to above Normal	<p><b>+ve impacts</b></p> <p>Enhanced water availability</p> <p>Enhanced groundwater recharge</p> <p><b>-ve impacts</b></p> <p>Risk of flash and riverine flooding in downstream areas</p>	<p>Provide early warning information</p> <p>Coordinate with DRM</p> <p>Encourage water harvesting measures</p>
Athi, Ewaso Ngiro , Nugal, and Tana (SO,KE)	Near Normal to above Normal	<p><b>+ve impacts</b></p> <p>Increase in lakes levels</p> <p>Enhanced water availability</p> <p>Stable power generation</p> <p><b>-ve impacts</b></p> <p>Risk of flooding downstream</p> <p>Water pollution</p>	<p>Close monitoring of water levels</p> <p>Provide early warning and flood alerts</p> <p>Provide water treatment chemicals</p>
Pangani, Wami, Ruvu and Rufiji(TZ)	Near Normal to below Normal	<p><b>+ve impacts</b></p> <p>Minimal risk of destruction of infrastructure</p>	<p>Encourage water harvesting activities</p>
Lake Tanganyika, Rusizi (BU)	Near Normal to above normal	<p><b>+ve Impacts</b></p> <p>Increase in Lake water level</p> <p><b>-ve Impacts</b></p> <p>Risk of flooding</p> <p>Destruction of infrastructure</p>	<p>Regular monitoring of water levels</p> <p>Provide early warning</p>

<p>Lake Victoria , (KE, UG,TZ)</p> <p>Rift Valley Lake basins (ET, KE, TZ)</p>	<p>Near Normal to above normal</p>	<p><b>+ve Impacts</b></p> <p>Enhanced water availability</p> <p><b>-ve Impacts</b></p> <p>Risk of flooding</p> <p>Displacement of people</p> <p>Risk of soil erosion and land slide</p> <p>Water pollution</p> <p>Risk of floating vegetation causing blockages</p>	<p>Provide early warning and flood alerts</p> <p>Implement soil and water conservation Pollution monitoring</p> <p>Provision of water treatment Chemicals</p> <p>Careful Lake water management</p>
<p>Victoria Nile, Lake Albert, Semliki, White Nile Bahr El Gazal and Bahr El Jebel (UG,SS,SD)</p>	<p>Near to above Normal</p>	<p><b>+ve Impacts</b></p> <p>Good water availability</p> <p><b>-ve Impacts</b></p> <p>Risk of flooding</p> <p>Displacement of people</p>	<p>Continue water level monitoring</p> <p>Provide early warning information</p> <p>Implement anticipatory actions</p>
<p>Blue Nile,Tekeze- Atbara_Setit, Baro- Akobo-Sobat, Awash</p> <p>Main Nile (ET,SD, SS)</p>	<p>Not the rainy season</p>		
<p>Melka Wakene, Genale Dawa-3 (ET)</p>	<p>Normal to above normal</p>	<p><b>+ve impacts</b></p> <p>More inflows to reservoirs</p> <p>Increased water levels</p> <p>Stable hydropower generation</p>	<p>Operate dams at full capacity to maximize hydropower production</p> <p>Monitor water level</p> <p>Provide early warning information</p>
<p>GERD, Roseries,TK5, Kashm ELGirba &amp; Main Nile (ET &amp; SD)</p>	<p>Not the rainy season</p>		
<p>Turkwel &amp; Masinga (KE)</p>	<p>Normal to above normal</p>	<p><b>+ve impacts</b></p> <p>More inflows to reservoirs</p>	<p>Balance the operation of the cascade dams to avoid flooding</p>



		Increase hydropower production	of upstream and downstream areas.
Gibe 1,2 & 3 (ET)	Near normal to above normal	<b>+ve impacts</b> More inflows in to reservoirs Increase in water levels Enhanced hydropower production	Operate dams at full capacity to maximize hydropower production
Mtera & Nyumba Ya Mungu (TZ)	Near normal to below normal	<b>-ve impacts</b> Reduced inflow to reservoirs Reduction in hydropower generation	Optimize reservoir operation Water conservation measures

### Key response measures/Advisories

- Enhance monitoring of water resources to avert disasters by implementing robust monitoring systems and early warning mechanisms.
- Provide regular updates on cyclone development to ensure timely preparedness and response efforts.
- Mainstream climate resilience considerations into water policies to adapt to changing climatic conditions and mitigate the impact of extreme weather events.
- Implement integrated water resources management approaches to ensure sustainable use of water resources and enhance resilience to water-related risks.
- Communicate information on impending disasters to downstream riparian countries to facilitate coordinated response efforts and minimize the impact of water-related disasters across borders.

## 6.5 DRM Sector

### Anticipated hazards and their potential impacts

Anti Anticipated hazards	Potential Impacts
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Floods (riverine and flash floods)	Loss of lives (human & livestock) Destruction of assets and infrastructure Displacement of vulnerable communities Disruption of mobility and access to essential services
Landslides/mudslides	Displacement of people Destruction of properties and livelihoods Blockage of roads Loss of lives
Epidemics	Overwhelmed health services Increased mortality & morbidity
Dust storm	Increased respiratory diseases. Destruction of houses
Heat wave	Heat stress/stroke Increased dehydration Other heat related health conditions
Desert Locusts	Destruction of pastures and crops
Hailstorms & Windstorms	Damages to housing and other infrastructure

### **Key response measures/advisories**

- Sensitize communities to maximize crop and livestock production through climate-smart agricultural practices.
- Educate communities on water harvesting techniques to optimize water resources and mitigate water scarcity.
- Raise awareness of a saving culture, with a focus on engaging men, to ensure financial preparedness for climate-related emergencies.
- Provide awareness on value-added income opportunities to diversify livelihoods and enhance resilience to economic shocks.

### **Resources Needed:**

- Funds to support the implementation of proposed actions, emphasizing the importance of allocating resources for anticipatory action as a proactive approach to disaster risk reduction.
- Capacity building of staff to equip them with the necessary skills and knowledge for effective implementation, particularly as the transition to anticipatory action requires specialized expertise.
- Collaboration with partners such as the World Food Programme (WFP), United Nations University, TMG Group, and others to leverage their expertise, resources, and networks for comprehensive support in climate resilience efforts.

## **6.6 Media Sector**

In the media sector according to report from Somalia, South Sudan, Sudan, Uganda, Kenya, Ethiopia, and Djibouti, the previous season saw a diverse climate scenario, with some regions facing drought conditions continuing from JJAS while others experienced heavy rainfall due to El Niño. Media practitioners played a crucial role in disseminating timely and accurate forecasts to the public, contributing to informed decision-making. Success stories from the previous season include reports by journalists such as Khamis Cosmas and Linah Mwamachi, highlighting the importance of media engagement in climate communication.

During the season, media professionals received valuable training from ICPAC to enhance their capacity in reporting seasonal forecasts effectively. Feedback from end-users, such as Geoffrey Kamadi, further underscored the importance of media in bridging the gap between climate information and public awareness.

Looking ahead to the coming season, media outlets will prioritize highlighting the impacts of climate information on communities, aiming to facilitate decision-making processes. Collaborating closely with National Meteorological Services, media will produce brief explainers on forecasts to educate the public.

The media sector calls for action, expressing openness to receiving weather and climate information promptly from scientists and meteorological services. They emphasize the need for simplified scientific language to enhance accessibility and understanding among the general public and policymakers alike.

## **Gender**

While addressing climatic challenges, it's crucial to recognize that these conditions affect genders differently. Unfortunately, gender considerations were often absent in the advisories provided. It's imperative for sectors to incorporate gender perspectives into their advisories to ensure inclusivity and equity, leaving no one behind.

User participation is essential in the climate information dissemination process. However, it was observed that although sector focal points represent users, direct involvement of end-users is lacking. To address this gap, it's vital to engage users actively in the process. Sector focal points should relay feedback and impacts from users at the grassroots level. Additionally, conducting periodic assessments at the local level will help determine the effectiveness of advisories, identify areas for improvement, and assess the uptake of information by end-users. This participatory approach will lead to more tailored and effective climate services that meet the diverse needs of communities.

## **7. Re-Engineering GHACOF Advantages and Implications for Users**

The aim of this dialogue was to understand the usefulness of the GHACOF Event. Issues discussed included users' experiences:

- Is GHACOF useful to you? Share your experiences.
- What are other people doing? Let's learn from their experience in climate forecasting.
- Share the obstacles and challenges you're facing.
- Share ideas on new ways to run GHACOF that could be adapted.
- To understand if the right strategies are being implemented. If so, how can we ensure that end-users of the GHACOF products can be influenced at the grassroots level to improve resilience and food security?

### **Are we hitting the right target?**

GHACOF is instrumental in developing forecasts and seasonal predictions, facilitating practical and meaningful interactions among stakeholders. Despite challenges such as the situation in Sudan, GHACOF serves as a backup, providing crucial information for government sectors' planning. Its outputs inform scenario building and drought response planning, ultimately saving lives and livelihoods during drought events.

Moreover, GHACOF captures regional and global climate information for policy-level advisories, benefiting national and county governments and reaching end-users like farmers. Participation in GHACOF enables the capture of predictions associated with advisories, enhancing agricultural practices and adaptation strategies. Additionally, GHACOF fosters knowledge exchange with colleagues from other regions, improving methodologies and policies related to climate change.

Several significant points were raised regarding the integration of health and gender issues into climate forecasting and response strategies. Participants highlighted Ethiopia's use of ENACTS data in a 2017 research exercise conducted by the Ministry of Health, emphasizing its applicability to the health sector. Advocacy efforts led to the inclusion of health and gender considerations in GHACOF discussions, reflecting a growing awareness of the need for gender inclusivity in climate-related initiatives. Suggestions were made to address specific regional challenges, such as flooding-induced displacement in South Sudan, emphasizing the importance of transboundary cooperation and water management strategies. Additionally, participants shared experiences from Kenya's agriculture sector, illustrating how climate information and advisories are utilized at the national and county levels, enriching the debates and discussions at GHACOF. The moderator emphasized the importance of listening to diverse perspectives, highlighting the collaborative and inclusive nature of GHACOF.

Dissemination and integration of climate information received in national or regional planning processes vary depending on the organization and its specific objectives.

In the case of the FAO Regional Office, they plan to integrate the information by collaborating with ICPAC in the drought monitoring sector. Recognizing the expertise of ICPAC in this area, they aim to avoid duplication of efforts and enhance collaboration through meetings between the DRR-ICPAC and FAO teams.

In Sudan (SDN), the MAM seasonal forecast will be directly distributed to relevant ministries such as Irrigation and Agriculture. This information will be disseminated through email and media channels to ensure its integration into national planning processes.

The National Coordination Mechanism on Migration in Kenya coordinates migration issues and plans to utilize ICPAC's DRR tool, which predicts displacements based on

potential disasters. This tool will help address the lack of migration data and support the development of migration data for use in their sector.

In South Sudan, the Ministry of Agriculture and Food Security integrates climate information into planning processes by disseminating it through electronic media, radio announcements, newspapers, and directly to relevant ministries. This collaborative approach ensures that climate information is utilized for effective planning and decision-making at the national level.

### **How to improve on the process to make GHACOF more effective, streamlined and more applicable**

To improve the effectiveness and applicability of GHACOF, several suggestions have been proposed by stakeholders from various sectors and member states. In Sudan, despite potential political conflicts, efforts are underway to enhance the clarity of outlooks, particularly for the MAM season, aligning with the country's unique agricultural calendar. Stakeholders emphasized the importance of usability and decision-making processes, urging feedback mechanisms to understand how advisories are utilized on the ground and assessing the financial impact of these decisions. The Kenya Electricity Generating Company highlights the need for greater involvement of policymakers to ensure the translation of GHACOF products into practical applications across different sectors, promoting resilience to climate change.

Other recommendations include establishing national focal points within the Ending Drought Emergencies Strategy framework to synthesize GHACOF products at the national level, enhancing coordination among sectors through national committees, and implementing systematic feedback and evaluation mechanisms post-GHACOF. Ethiopia's agriculture sector underscores the necessity for year-round forecasts to accommodate overlapping planting and harvesting seasons. Additionally, stakeholders emphasize the importance of engaging all actors in the climate information value chain, including communities, donors, and insurers, to ensure comprehensive feedback and support for strengthening national climate outlook forecasts. In particular, South Sudan seeks support to bolster its national forecasting capabilities. These suggestions collectively aim to enhance GHACOF's effectiveness, streamline processes, and foster greater applicability of climate information for decision-making and resilience-building efforts across the Greater Horn of Africa region.

Participants acknowledged the pivotal role played by the IGAD Climate Prediction and Applications Centre (ICPAC) in mobilizing member states and facilitating the development of climate advisories. However, there was a concern on the need for a broader IGAD-wide approach to ensure inclusivity and relevance across various sectors. It was suggested that different departments and divisions within IGAD should be actively involved in the co-production of advisories to address diverse community issues effectively. Additionally, emphasis was placed on the importance of involving policymakers in GHACOF discussions to translate climate information into actionable policies.

A representative from the Office of the Prime Minister of Uganda highlighted the transformative impact of GHACOF on national policy-making processes. They underscored the evolution of GHACOF into a multisectoral platform, leading to improved national climate outlook forecasts. The downscaled forecasts provided through GHACOF have significantly influenced decision-making processes, enabling policymakers to formulate policies that benefit users across different sectors. This highlights the crucial role of GHACOF in driving positive transformations at the national level.

Looking ahead, there is a consensus on the need for continued collaboration and engagement to further strengthen the effectiveness of GHACOF and ensure its relevance in addressing the region's evolving climate challenges.

## **8. Release of the Seasonal Forecast and Statement**

GHACOF 66 was preceded by pre-GHACOF where the scientists came together to look at the state of climate over the region, analyse the drivers and come up with the MAM IGAD 2024 forecast.

During the release of the seasonal forecast, Mr. Zachary Atheru, speaking on behalf of ICPAC director Dr. Guleid Artan, expressed gratitude to all participants for their engagement in the forum. This platform, he noted, served as a vital knowledge-sharing and feedback mechanism, bringing together stakeholders from diverse sectors and organizations. A call was made for countries to embrace national climate

outlook forums to downscale climate services and ensure effective dissemination to end users.

Highlighting progress in climate service frameworks, Mr. Atheru mentioned that countries like Tanzania have developed National Frameworks for Climate Services, while Rwanda, Ethiopia, and Uganda are in advanced stages. Kenya's framework, he added, has been approved and awaits official launch. The statement presented during the forecast release indicated wetter-than-usual conditions forecasted for most parts of the region.

In his remarks, the Executive Director of the Uganda Meteorological Department expressed gratitude to IGAD for the seasonal forecast. He announced Uganda Met's commitment to downscale the forecast and release the MAM forecast tailored specifically for Uganda. He commended GHACOF as a leading example among COFs across the African continent.

Acknowledging the importance of attendees' contributions, the guest of honour underscored the significance of GHACOF forums in raising awareness about climate action, early warning systems, and anticipatory measures. The event concluded with a renewed commitment to collaborative efforts in addressing climate challenges and building resilience across the region.

### **Press Release and Statement**

**21st February 2024, Kampala, Uganda:** The IGAD Climate Prediction and Applications Centre (ICPAC) released the March to May 2024 seasonal forecast which indicates a higher probability of wetter-than-normal conditions across most parts of the Greater Horn of Africa. Notably, the areas expected to experience these wetter conditions include Kenya, Somalia, southern Ethiopia, South Sudan, Uganda, Burundi, Rwanda, and north-western Tanzania.

The highest probabilities for wetter-than-usual conditions are indicated in central to western Kenya and in the cross-border areas of Ethiopia, Kenya, and Uganda. The expected enhanced rainfall is likely to positively impact agriculture, water resources, and overall livelihoods.

An early to normal rainfall onset is expected in several parts of the region. These include parts of northern Tanzania, eastern Rwanda, southern and western Uganda, western Kenya, south-western Somalia, and parts of south-central Ethiopia.



The ICPAC director Dr. Guleid Artan noted, " *Due to the increased rainfall recorded in the October to December 2023 period, along with the forecast of wetter-than-normal conditions from March to May, there is an elevated risk of flooding in areas prone to floods. The forecast underscores the urgency for coordinated action and preparedness, emphasizing the need for proactive measures to mitigate potential impacts and capitalize on the opportunities presented by the forecast rainfall. Let us unite in our commitment to leveraging climate information for resilient and sustainable development across our region.*"

He further added that " *while the food security situation may improve with wetter than usual conditions, it is important to remember the multiple challenges faced by the region, including the historic 2020-2022 drought, conflict in various parts of the region such as Sudan, and the El Nino-induced floods at the end of 2023. This has weakened communities' coping capacity, making them highly susceptible to food insecurity. The likelihood of flooding during the 2024 MAM season in parts of the region could lead to a deterioration in food security in localised areas.*"

The objective temperature forecast indicates an increased likelihood of warmer-than-normal surface temperatures over the entire region. Probabilities for warmer than normal temperatures are most enhanced over Sudan, northern South Sudan, Ethiopia, Eritrea, Djibouti, Somalia and southern parts of Tanzania.

In line with the World Meteorological Organization's guidelines and recommendations, ICPAC has adopted an objective seasonal forecast method to generate climate forecasts for the Greater Horn of Africa. February 2024 initialized seasonal forecasts from nine Global Producing Centres (GPCs) were utilized and processed using three calibration techniques to develop the MAM 2024 seasonal climate outlook.

**-End-**

This press release is available in:

[English](#)

[Kiswahili](#)

[French](#)

[Arabic](#)

[Somali](#)

[Amharic](#)

Note to Editors:

The 66th Greater Horn of Africa Climate Outlook Forum (GHACOF66) was convened as a hybrid event on February 21st, 2024, by the IGAD Climate Prediction and Applications Centre (ICPAC). The forum was organised in collaboration with the National Meteorological and Hydrological Services across the region, along with other partners, with the primary objective of issuing the seasonal forecast for the period of March to May 2024.

We encourage media and climate information users to consult our weekly and monthly updates of the forecasted season: [www.icpac.net](http://www.icpac.net)

For downscaled information, please get in touch with National Meteorological and Hydrological Services.

[ICPAC technical report for the MAM season 2024](#)

[Summary for decision-makers MAM 2024](#)

## **Participants**

An average of 187 online participants attended the forum and there were 214 physical participants.

## **9. Annex: Photos**

All the forum photos can be accessed using the link below.

[https://drive.google.com/drive/folders/1qnvxKRCzcubLxBhqLIEZbK0\\_oa5IRtoY?usp=share\\_link](https://drive.google.com/drive/folders/1qnvxKRCzcubLxBhqLIEZbK0_oa5IRtoY?usp=share_link)