REPORT OF THE FIFTY EIGHTH GREATER HORN OF AFRICA CLIMATE OUTLOOK FORUM (GHACOF58) JUNE TO SEPTEMBER 2021 RAINFALL SEASON

Held Virtually through zoom on 27 May 2021

THEME: "Climate services for early action."

Nairobi, 2021

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PREFACE

The fifty-eighth Greater Horn of Africa (GHA) Climate Outlook Forum (GHACOF58) was organized virtually on 27 May 2021. The forum's primary goal was to communicate the seasonal climate outlook for June – September 2021, analyze its socio-economic impacts, and formulate appropriate mitigation measures to reduce climate risk over the region. More than 180 stakeholders from the GHA, West and Southern Africa, Europe, and the USA attended the forum. GHACOF58 was preceded by sectors specific workshops that focused on co-production of climate services, feedback on the use of the previous forecast and impacts of the following season, lessons learned and mitigation measures, and co-production of climate services. This was in addition to week-long traditional climate workshop to co-develop regional and national climate forecasts.

Albeit technical and connection challenges, the GHACOF58 was highly successful and far exceeded expectations in terms of attendance and a high level of participant satisfaction on the usefulness of the information and presentation format. The virtual setting also allowed some stakeholders to join the meeting from their homes and countries outside the region. The other positive qualities that could be attributed to the virtual forum include the extremely low expenditure compared to the costs of in-person GHACOF meetings and the absence of negative environmental impacts.

The Inter-Governmental Authority Development (IGAD) Climate Prediction and Applications Centre (ICPAC) organized the forum in collaboration with the National Meteorological and Hydrological Services (NMHSs) of ICPAC's participating member countries and supported by partners.

The forum was organized within the IGAD regional strategy framework for mainstreaming climate information into key socio-economic sectors for disaster risk reduction and sustainable development. The theme of GHACOF58 was **"Climate services for early action"**.

The three days-event was attended by 580 participants who joined the virtual meeting, 429 (74.4%) were male, while 151 (25.6%) were female.

ICPAC would continue to organize GHACOFs as one of the most effective ways to strengthen the dialogue between climate scientists and the users of climate services, proactively innovate and improve efforts to deliver better services to intermediary and end-users in the coming seasons.

Guleid Artan (PhD)

ICPAC Director

EXECUTIVE SUMMARY

Due to the COVID-19 pandemic, the IGAD Climate Prediction and Applications Centre (ICPAC) held its GHACOF58 virtually using *Airmeet* platform. The GHACOF58 issued the June to September 2021 rainfall forecasts for the region, including its potential impacts and mitigation measures.

It also reviewed the March-May 2020 seasonal rainfall performance, i.e., rainfall onset, amounts, distribution, and impacts vis-a-vis the previous seasonal outlook.

The forum was held within the framework of the IGAD regional strategy for mainstreaming climate information into key socio-economic sectors for resilience and sustainable development. It brought together representatives from National Meteorological and Hydrological Services (NMHSs), sector focal points, regional partners, and global climate centers to ensure consistency in the access to and the interpretation of seasonal rainfall and temperature prediction in the Greater Horn of Africa (GHA) and the implications for critical sectors. Others were from socio-economic sectors such as agriculture and food security, health, water resources, energy, disaster risk reduction, civil society, conflict early warning response, environment and forestry, communication, and media, among other users of climate information and prediction products. 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.

The methodology adopted to achieve its objective included power point presentations shared through *Airmeet* and plenary dialogue. The forum formulated mitigation and response strategies as a consequence of the June–September 2021 seasonal outlook.

After many hours of deliberations, the Director of ICPAC read the forum's statement to the participants. The consolidated objective climate forecast generally indicated a relatively higher chance of wetter conditions over much of the northern Tanzania and along a north-south band centered on the Uganda, Kenya, South Sudan, and Ethiopia borders and including parts of Uganda, Rwanda, and Burundi. In these regions, probabilities for the wetter than average category range from 35-50%. In contrast, probabilities for drier than average conditions are enhanced over parts of eastern Ethiopia and reach 45% at few locations.

All the sectorial sessions were held a day before the main event. Historically, GHACOFs sessions had two breakout sessions that reviewed lessons learned from the preceding forum as well as formulated implications of the coming climate outlook and response strategies. In line with restructuring GHACOF events based on stakeholders' recommendations and survey outcome, more time for sector discussions were innovatively created while at the same time minimizing the long sector activities, particularly for online GHACOF session. The sectors involved were Agriculture and Food Security, Disaster Risk Management (DRM), Water Resources Management and Energy, Livestock, Health, Environment and Forestry, Media, and the Conflict Early Warning and Response Mechanism (CEWARN). Climate Change experts also had a parallel workshop on day one but later joined the various sectors on the second day.

Despite the success, there were technological challenges that affected the online forum. Structurally, internet services generally are not widespread and stable in many parts of the region, which can significantly affect the quality and rate of participation in virtual forums.

1. SESSION I: SETTING THE STAGE AND OFFICIAL OPENING CEREMONY

The forum was opened by the Director of the IGAD Climate Prediction and Applications Centre (ICPAC), Dr. Guleid Artan. In his opening remark, Dr. Artan welcomed all the participants and distinguished guests and stated that the region, like many other parts of the world, currently face a series of compounded crises. These crises are exacerbated further by climate change. He mentioned that more frequent and intense extreme events are becoming new normal with their unexpected impacts. Moreover, he added that food insecurity, pests like the desert locust, or an increased frequency of tropical cyclones affect our region's people.

Dr. Artan noted the importance of early warning and stressed that early warning is of limited value without early action. He further emphasized the need to focus on what the weather will do rather than what the weather will be. He recognized representatives from member countries in the event. He gave assurance that ICPAC would continue working with NMHS in member countries to co-produce climate products relevant for sector-specific decision-making.

Mr. Zachary Atheru briefed the participants about the GHACOF event, including the Pre-GHACOF58 workshops. He noted that the main objective of the GHACOF is to review the performance and impacts of the previous season, share lessons learned in the application of the products, and present the seasonal forecast for the coming season. He noted that the forum provides the opportunity for interactions between producers, users, and decision makes. He indicated that the main outcomes of the GHACOF event are the release of climate outlook for June to September 2021 and summary for decision-makers.

He also highlighted some of the activities undertaken before the main GHACOF event, including the (1) PreCOF58 capacity building training workshop conducted from 17 to 21 May 2021 to produce the regional and national objective climate forecast, (2) the climate services co-production workshop with the key sectors held on 25 May 2021 and (3) the sectoral meeting to generate advisories and response strategies held on 26 February 2021.

1.1 INTRODUCTION

Historically, the organization of RCOFs was initiated in 1996 in Victoria Falls, Zimbabwe, by the WMO's Climate Information and Prediction Services (CLIPS) project in collaboration with NMHSs. RCOFs gained momentum as a regional response to the major 1997–1998 El Niño event, with the first Southern Africa Climate Outlook Forum held in September 1997. The RCOFs are useful in providing regional, seasonal climate outlooks for applications in support of resilience building for sustainable development.

The fifty-eighth Greater Horn of Africa Climate Outlook Forum was organized by ICPAC in collaboration with its member NMHSs, regional and international climate centres, among many other partners. The objective of the forum was to raise awareness and to serve as a platform for the dissemination of climate information. The overall goal is to provide information that enables early action against climate-driven socio-economic impacts supporting sustainable development.

June to September (JJAS) is the main rainfall season over the northern part of the Greater Horn of Africa (GHA) region. This report presents JJAS 2021 seasonal rainfall, its implications, and

formulated mitigation measures based on the objective climate outlook. It is based on the outcome of online deliberations conducted on 27 May 2021 to communicate the expected seasonal climate outlook, document its socio-economic impacts, and formulate appropriate responses to improve climate risk management and adaptation over the GHA.

1.2 Objective of the forum

The forum's main objective was to provide the regional climate outlook for the June – September 2021 rainfall season, analyze the potential impacts of the expected climate conditions on different socio-economic sectors, and formulate appropriate mitigation measures as well as advisories.

Evaluation of the performance and impacts of the preceding seasonal climate was also undertaken. Experiences and lessons learned in using the forecast together with good practices were highlighted in the sectoral reports. The challenges encountered during the season were also reported.

1.3 Participants for the forum

The online forum was composed of climate scientists from the National Meteorological and Hydrological Services (NMHSs) of ICPAC member countries, universities, research institutions, regional and international organizations engaged in climate modelling, prediction and applications for the region. Others were from socio-economic sectors such as agriculture and food security, health, water resources, energy, disaster risk reduction, civil society, and conflict early warning response, among other users. Various regional and international Governmental and Non-Governmental organizations and the donor community. The number and percentages are broken down per country and sector in table 1 and 2, receptively. About 40% of the participants are based in Kenya because it is the regional hub for most of the Intergovernmental organizations and NGOs in the region. In terms of sectors, the meteorology and climate services comprised of 44% of the total participants.

Table 1: participants by countries and their percentages out the total participants

No	Countries	Number of participants	Percentage out of total number of participants
IGAD and ICPAC countries			
1	Kenya	234	40.0%
2	Ethiopia	62	10.6%
3	Somalia	57	9.7%
4	Sudan	50	8.6%
5	Uganda	41	7.0%
6	South Sudan	22	3.8%
7	Rwanda	19	3.3%
8	Tanzania	16	2.7%

9	Djibouti	13	2.2%
10	Burundi	8	1.4%
Subtotal		**522**	**89.2%**
Participants from outside of the region			
11	United Kingdom	22	3.8%
12	Italy	13	2.2%
13	Norway	11	1.9%
14	South Africa	4	0.7%
15	Belgium	3	0.5%
16	Botswana	2	0.3%
17	United States	2	0.3%
18	Egypt	1	0.2%
19	Germany	1	0.2%
20	Niger	1	0.2%
21	Pakistan	1	0.2%
22	Nigeria	1	0.2%
23	The Netherlands	1	0.2%
Subtotal		**63**	**10.8%**

Table 2: the percentage of participants according to their sectors

No	Sector	Percentage out of total
1	Meteorology and Climate Services	44.4%
2	Agriculture and Food Security	9.7%
3	Environment and climate change	9.3%
4	Media / Communication and Information Technology	8.3%
5	Water and Energy	6.6
6	Disaster Risk Reduction	6.3%
7	Livestock	5.0%
8	Education / Academia and Research	3.3%
9	Conflict / Law enforcement and Security	1.7%
10	Health	1.3%

11	Other	3.8%

More details about the participants and their sectors are given in the excel file attached with this report.

1.4 Methodology

Presentations and plenary discussions were some of the main modes used during the online forum. On 26 May 2021 sectors organized a working session to review the impact of the MAM 2021 season, share lesson and good practices, discuss the outlook of JJAS 2021, and generate advisories to mitigate the climate. A statement was released by ICPAC Director at the end of the deliberations.

This report is divided into **five sessions**. **First session** is setting of the stage the official opening remarks by ICPAC Director. The rest of the session contains the introduction of GHACOF 58, objective, profile of the attendance and methodology adopted for the forum. The **second session** presents verification and performance of MAM 2021 Seasonal Climate over GHA; reports collated from member countries' focal points on performance of MAM 2021 season, good practices and challenges during the season. **Session three** gives current state of global climate system and JJAS 2021 seasonal climate outlook for the region. **Session four** is on expected impacts and management strategies emanating from the given forecast. Finally, **Session five** where the official release of the JJAS 2021 climate outlook statement followed by a **sixth session** for side events. Two side events followed after the closing of the main GHACOF meeting. The annexes are captured in the last part of this report.

2. SESSION II: FEEDBACK ON PERFORMANCE AND IMPACTS OF MARCH – MAY 2021 SEASON

2.1 Verification and Performance of MAM 2021 Seasonal Climate over GHA

Dry conditions were observed in March in most parts of the region with rainfall above average especially during the first 20 days of May. Notably, the predominantly drier corridors of Ethiopia-Sudan-South Sudan received above-average rainfall from the start of the season. Despite the good performance as was forecasted, the onset dates were delayed across most regions which is a deviation from the forecast which had indicated early onset. In terms of drivers for the observed rainfall, Madden-Julian Oscillation (MJO) appeared to be the main influencing factor for the periods of enhanced and suppressed rainfall within the season in the region.

2.2 Sector impacts experienced in MAM 2021

The next set of talks were focusing on the impacts of the MAM 2021 season on various sectors in member states within GHA. The data was collected from sector focal points within individual member countries. Six sectors provided feedback on the impacts of MAM 2021 season and the mitigation/response measures they took.

2.2.1 Disaster Risk Management (DRM)

Dr. *Ahmed Amdihun, ICPAC*

The region in some cases experienced contrasting dry and wet conditions causing drought and floods in many places. Abundant moisture within the Equatorial belt was experienced from mid-April resulting in water and pasture availability. On a more positive note, no country declared a state of emergency during MAM season. Some of the measures taken based on MAM forecasts included; Preparation for impending disasters in form of contingency plans; Activation of flood and drought task forces; sensitisation and dissemination of awareness/early warning messages. It was noted that there is still a need to strengthen. Linkages of early warnings to early and timely action for sudden-onset and slow-onset disasters.

2.2.2 Livestock and Rangelands

Ms. Caroline Kirungu, ICPALD

In Djibouti, during MAM 2021 the live animal supply chain was distributed leading to limited offers in the livestock market in the country. This led to import from Ethiopia and Sudan. In Ethiopia, the Borena zone was of concern due to poor pastures leading to the death of animals and wildlife. Poor pastures in Afar, eastern Amhara, Gambella. Dry conditions and flooding in Jijjiga, Dire Dawa, SNNPR, Sawula. Moreover, there is a desert locust in 3 districts. In Kenya, an outbreak of resource-based conflicts was reported in Turkana East. Extreme rainfall events leading to flooding in 15 counties, 7 severely leading to the death of livestock. In Somalia,

Cereal production is expected to be below 20 - 40% leading to food insecurity. The threat from desert locusts is still existent. There is a high alert moderate to severe drought as a result of below-average Drier season rainfall from October to December 2020, warmer-than-normal temperatures during the January to March 2021 Jilaal season, and a delayed, poor start and performance of 2021 Gu season. In Sudan, this is a dry season in which the prices of fodder are high and water resources are scarce. In Uganda, an outbreak of African swine fever was reported in central Uganda.

In terms of climate change, the occurrence of extreme rainfall events that have led to flooding in many areas. Late-onset of MAM in most of the region and longer than usual dry spells.

2.2.3 Health

Mr. Paulino Omay, ICPAC

The impacts positive identified by the health sectors persons, are the eradication of Cholera cases during this season by using sanitation measures in the areas susceptible to the disease such as Kotdio and Karamoja. The dry season in Sudan enabled to transport and rollout of polio vaccine to remote areas where in most cases the roads are unpaved. In Ethiopia, adequate water supply and no electricity interruption, which was common in the dry seasons. In Rwanda, the harvest has been good and water supply was stable, which implies a good health of the population. In Tanzania, no outbreaks of dengue, chikungunya, Rift Valley fever (RVF) reported. However, all countries in the region experienced cases of Malaria. A very limited number of suspected cholera cases were reported in Ethiopia and Somalia (Banadir and Middle Shabelle). Severe acute malnutrition is also reported in most of the regions and the highest in Oromia and

Somali, Somalia. Cases of Dysentery, Hepatitis, Typhoid, and Meningitis were reported in Sudan, and Hepatitis in South Sudan.

Moreover, many of the countries in the region experienced a new wave of COVID-19.

2.2.4 Conflict (CEWARN)

Andrew Malinga, CEWARN

The sector highlighted responses to the seasonal MAM 2021 forecasts. It was noted that there was sufficient water and pasture for the pastoralists in most ASAL areas of the region which resulted in less conflict for resources and planting of trees. Drier conditions however were realized in some parts of the region resulting in the internal displacement of communities, competition for scarce dissipated resources, and forced movement of pastoralists farther south in the south Omo zone and Lake Turkana. Tension and deteriorating social relations, among some ethnic groups -between Hammer and Dassenech as well as Bena -Tsemay and Mago National park keepers (Human-wildlife conflict) was also witnessed.

2.2.5 Water and Energy

Dr Mohammed Hassan

Some of the observed positive impacts highlighted by the water sector included enhanced water in Burundi, Kenya, Tanzania, and Uganda. The availability eased access to water in Kenya and Uganda. The season also provided an opportunity for good recharge of groundwater aquifers in Burundi, Kenya, Somalia. It also enhanced water availability on hydropower, water supply and Irrigation dams in Burundi, Ethiopia, Kenya, and Tanzania, and improve the rivers' water level on rivers for small irrigation farms and livelihood Burundi, Ethiopia, Kenya, and Uganda. It also sustained high water levels in most wetlands in Uganda. On the other hand, the season led to incidences of and flash flooding in Burundi, Ethiopia, Kenya, Somalia. Water Quality Reduction due to sewage contamination and high sediment was experienced in Kenya, South Sudan, and Tanzania. Soil erosion and damage to Infrastructure, irrigation farms, and deaths in Burundi, Ethiopia, Kenya, Tanzania. Incidences of landslides were reported in Burundi, Ethiopia, and Rwanda. Rise in Lake level leading to Sustained disruption of peoples livelihoods in Burundi, Kenya, and Uganda. Interruption of construction-related projects due to persistent high water levels and wet ground in Uganda and South Sudan.

Moreover, part of Somalia experienced water shortage. The surface water bodies in Sudan were affected by the high temperature during the season leading to high evaporation. Also, the limited water flow to reservoirs hampered hydropower production.

2.2.6 Agriculture and Food Security

Mr. Oliver Kipkogei

The session highlighted the positive and negative impacts of the MAM season on the Food Security and Agricultural sector. Some of the positive impacts realized were; Good crop prospects in some parts of the region including Ethiopia, Kenya, and South Sudan; Heavy rainfall in some parts decreased prevalence of Fall Army Warm especially in parts of Burundi; rainwater

harvesting technologies promotion campaigns were conducted in Kenya and Burundi; Low damage of crops due to Desert locust and the weather was conducive for harvesting wheat and land preparation for summer season during April and May in Sudan. There were however some negative impacts including; Flood Incidences; Landslides and soil erosion leading to crop damages in Burundi, Rwanda, and Kenya; An estimated 3,000 acres of farmland were submerged underwater and late-onset as was seen in most parts of the region resulted in long dry spells in March and April**.**

3. SESSION III: June – September (JJAS) 2021 CLIMATE OUTLOOK

The session was moderated by Mr. Zachary Atheru from ICPAC.

3.1 Current state of global climate system

The state of the global climate system was presented by Dr. Stefan Lines from the UKMO. He showed evidence that global temperatures have been rising since 1900. The last decade has been the hostess with 2020 being the 2^{ed} warmest year globally despite the La Nina episode. With the currently observed trends, 2021 is likely to be in the top 10 warmest years globally. He pointed out that uncertainty (chaos) in the atmosphere makes forecasting with precision difficult, but since global climate drivers generated from Sea Surface Temperature (SSTs) influence rainfall variability, adoption of these systems eases difficulties associated with forecasting. Global drivers such as El Nino Southern Oscillation (ENSO) and Indian Ocean Dipole (IOD) help to forecast the likelihood of wet or dry conditions depending on their prevailing phases and global models are able to capture these drivers.

He also showed that SSTs have been below average in the central and eastern Pacific, signifying a La Nina episode while SSTs over the Indian Ocean have been equally warmer signifying a neutral IOD. However, from late April and early May, SSTs show moderate warming in the Pacific indicating weakening La Nina. The recent La Nina episode has ended and ENSO is currently neutral. Nino 3.4 region SSTs are predicted by the majority of the models surveyed by CPC/IRI to be warming and JJAS likely to be neutral. However, there is a 60-70% chance of a return to La Nina as we head towards the OND season. He emphasized that this should be monitored keenly. He also noted that IOD has minimal influence during JJAS and the forecast shows that IOD is likely to be neutral during the JJAS. GloSea6 from the UKMO shows a neutral likelihood of IOD during the season.

3.2 Presentation of June – September 2021 Greater Horn of Africa Climate Outlook

The outlook of the June to September 2021 season was presented by Dr. Zewdu Segele from ICPAC. To put the presentation into context, he showed that June -September season is significant to the northern sector contributing between 20 and 90% to the annual total depending on the specific location. He also described the use of analog years to understand the likely scenario of the upcoming season. He showed that 1996 and 2018 have the best correspondence in terms of February to April SSTs over the globe to 2021. These years are considered analogs but are not used in the forecast.

Dr, Zewdu made it clear that ICPAC utilizes 2 statistical methods (CPT; which takes into account global effects, and Regression that considers local effects) to downscale 9 models. The forecast map gave only shows the most dominant category, but all three categories have chances of varying degrees. For JJAS 2021, the forecast shows that northern Sudan has the highest probability of 55 for above-average rainfall. Most parts of Uganda, South Sudan, and Ethiopia have chances of being above-average at 45%. Southern parts of the region are generally dry though coastal Kenya and northern coastal Tanzania show chances of rainfall being recorded. South Sudan, western Ethiopia, northern Uganda, and southern parts of Sudan have the highest probability of receiving rainfall of more than 400 mm during the season. He also explained the various intra-seasonal characteristics where he mentioned that one global model is dynamically downscaled to predict onset. Compared to the climatology, onset is expected to be early over western Ethiopia, southern areas of Sudan, and the Karamoja area. Continuous Less than 1 mm of rainfall is less likely to be recorded in Ethiopia, Sudan, and Karamoja while continuous wet days >5mm are likely to be recorded over western Ethiopia and Sudan.

In terms of temperature, it was observed that warmer conditions are likely to be recorded over the eastern parts of the region, while western Tanzania, Burundi, Rwanda, western Kenya, Uganda, and western South Sudan are likely to have cooler temperatures.

In summary, wetter than average rainfall is likely to be observed over much of the region. Early-onset is expected over western Ethiopia and Sudan. Warmer temperatures are likely over northern and equatorial areas of the region. Cooler temperatures are expected over the western parts of the region

4. SESSION IV: SECTOR REPORTS ON IMPACTS AND MANAGEMENT STRATEGIES FOR JJAS 2021

Moderator: Linda Ogallo **Rapporteur:** Jully Ouma

This session focused on reporting from the discussion of the sectors on the potential impacts of JJAS 2021 season and the best advisories to decision makers toward mitigating these impacts. Below is the reports from each sector and they are also used to developed the summary for decision makers.

4.1 Agriculture and Food Security

Key impacts

- Good crop prospects in regions forecasted to receive above normal rain (Much of Sudan, South Sudan and Ethiopia).
- Likelihood of a reduction of rivers/lake levels that have caused damage to people and crops during MAM season (e.g., Burundi).
- Dry conditions are good for harvesting of previous season crops -Reduced post-harvest losses (e.g., in Burundi).
- Enhanced rains is likely to decrease pests and diseases e.g. FAW.
- Likelihood of floods that might lead to incidences of waterlogging in cultivated prone areas (e.g., Afar, eastern Amhara, SNNP, Nzoia River Basin in Western Kenya, Northern Somalia).

- Desert locust outbreak is highly likely due to conducive breeding conditions-likely greening of vegetation.
- Early onset will impact on time for land preparation.
- Intermittent moist conditions might be favorable for pest and disease outbreak over moisture stress areas.
- Likelihood of post-harvest losses for ongoing MAM crops.
- High likelihood of increase in weeds –Above normal rainfall areas.
- Transportation problems due to likelihood of road damage in some parts

Advisories

- Disseminate this early warning information to decision makers at country level for early action.
- Farmers, Govts, agro-dealers and other stakeholders urged to undertake early land preparation, distribute agricultural inputs (improved seeds, fertilizers, herbicides and pesticides), and agricultural implements to take advantage of the expected early onset of rains.
- Farmers and concerned agricultural bodies should give proper attention in terms of crop selection: High yielding varieties that are resistant to excessive rains –AN areas; Drought tolerant and early maturing e.g tubers - BN areas.
- Advisory alert for Desert Locust –monitoring and control
- Farmers and concerned authorities urged to strengthen soil and water conservation measures for use in water stress times
- Concerned authorities urged to prepare and advise on flood mitigation measures e.g. construction of gullies, rehabilitation of drainage facilities, canals and embankments.
- Farmers and national level agricultural authorities urged to enhance post-harvest strategies in areas expected to undertake harvests within the JJA season, for instance, construction of temporal silos, availing post-harvest equipment to farmers, rehabilitation of warehouses
- Continued Humanitarian support for regions that are food insecure from governments and other actors.

4.2 Environment and Forestry

Key impacts

- Enhanced rainfall will increase water availability and higher moisture available for vegetation and trees (Ethiopia, Kenya, Rwanda)
- Ongoing water towers forest cover rehabilitation and expansion to benefit from increased rains (Kenya)
- High rainfall expected to lead to high groundwater percolation and recharging water aquifers (Kenya, Ethiopia)
- Survival of planted trees and accelerated growth due to combined high rainfall and higher temperatures (Ethiopia, Kenya)
- Environment and ecosystems will continue to benefit from high moisture availability enabling activities like farming around forests and putting lesser pressure on the forests (Ethiopia, Kenya)

- Likely increase of forage and biomass for both wildlife and livestock (Ethiopia, Kenya)
- Improved soil fertility due to movement of nutrients leading better land productivity (Ethiopia)
- High rainfall likely to cause land degradation/soil erosion and water quality (Ethiopia, Kenya, Rwanda)
- higher temperatures likely to affect ecosystem/biodiversity e.g., invasive species, pests' multiplication and diseases (Ethiopia, Kenya)
- higher temperatures to increase evapotranspiration rates and possible higher leaf shedding and slower tree growth (Ethiopia, Kenya)
- In areas with low forecasted rainfall and high temperature, possible forage decreases leading to increased competition for natural resources e.g., forage and water likely leading to an increase in human-wildlife conflicts (Ethiopia, Kenya)
- Good biomass from the current rainfall season coupled with high forecasted temperature likely to increase wildfires (Ethiopia, Kenya, Somalia, Tanzania)

Advisories

- Promote tree planting programs to benefit from the forecasted rainfall/temperature (Ethiopia, Kenya, Rwanda)
- Setting up tree nurseries to supply seeds for increasing tree cover programs (Ethiopia, Kenya, Rwanda)
- Right timing of tree planting (SOS) and pruning of trees to enhance growth (Ethiopia, Kenya, Rwanda)
- Promote land management/soil conservation and landscape restoration on affected lands (Ethiopia, Kenya, Rwanda)
- Pest and disease control measures in areas likely to be affected e.g., procurement of pesticides (Ethiopia, Kenya)
- Increased monitoring of hotspots for human-wildlife conflicts and increase community engagement in the hotspots (Ethiopia, Kenya)
- Fire management practices in forests/protected areas e.g., establishing firebreaks, watching towers, management fires, etc. (Kenya)

4.3 Livestock and Rangelands

Key impacts

- Djibouti expects regeneration in water and pasture conditions. Less livestock displacement and reduced livestock pressure around water points/ this implies less spread of animal diseases and availability of Milk & Meat for pastoralists/ so there will be improvement of their Food Security
- Ethiopia to focus on production in good rainfall area for fodder production and preservation, good milk production
- Somalia is likely to experience increased livestock export due to the Hajj
- Increase animal price in markets due to coming Hajj,
- Sudán to improved pastures regeneration and water harvesting

- Uganda are likely to have good pastures to prevail as well as good animal body conditions
- Honey production increase (adequate flowers and water)
- Desert locust monitoring, in Ethiopia and Somalia, Kenya.
- Ethiopia; Attention for Borena area and Somali region, already in the red
- Kenya; Pastures and fodder production will go down, animal body conditions expected to decline,
- Somalia; animal movements to occur in some areas due to inadequate water and pasture
- Djibouti; heavy rains mean in Djibouti flash floods >Loss of animals especially those in dry river beds
- Ethiopia; may also face flooding especially in Zone 1& 2.
- Somalia; flooding in Beledweyne, could lead to water borne disease, displacement of pastoralists, outbreak of endemic disease
- Uganda, Sudan, South Sudan; Diseases associated with wet condition in areas expected to have above normal rainfall, parasitic diseases, tse tse and ticks expected to prevail
- Kenya, Ethiopia, Somalia; There are high chances of more animal migrations in the region. With this comes conflict and disease sharing among herds, Poor animal body conditions mean lower immunity and hence higher susceptibility to infections
- Djibouti; Heavy rains accompanied by strong winds can cause pneumonia and mortalities especially in goats, heavy rains also increase the risk of Rift Valley Fever
- Sudan; Seasonal Animal movement expected from South Sudan to southern part of Sudan (South and East Darfur, South Kordofan, White Nile, Blue Nile and Sinnar) up to central states (North Kordofan, Gadarif and Kassala states) to avoid flies and mosquitoes >>disease sharing among herds

Advisories

- Close monitoring of seasonal performance
- Conservation of water and pastures/fodder in the areas receiving good rains during this season
- Control of vector-borne diseases, deworming, vaccinations
- Routine control Trans-boundary Animal diseases (TADs)
- African Swine Fever, CBPP, PPR Foot and Mouth Disease control measures to continue
- Flood control in flood prone areas
- Zones 1 & 2 Poultry disease control to be intensified especially Gumboro and coccidiosis
- Awareness-raising campaign, as soon as possible to avoid those negative impacts
- Restocking especially in Djibouti
- Close coordination with the Ministry of Health to insure One Health activities especially for hemorrhagic Fevers.

- Strengthen Veterinary Surveillance against the risk of Rift Valley Fever to ensure safety of public health and to secure animal exportation

4.4 Conflict (CEWARN)

Key impacts

- Expected enhanced rainfall over Ethiopia might trigger conflict over constrained access to agriculture input which might likely undermine cultivation for the upcoming meher harvest.
- The ongoing conflict in the region may also hamper adequate utilization of the season.
- Active conflict expected around the northern basin of L. Turkana owing to the anticipated migration of Turkana herders
- Anticipated congregation of herders along the mountainous border escarpments with Uganda.
- Anticipated migration of herders towards the north of L. Turkana and the border areas with Ethiopia.
- Heightened conflict between cross border communities along the border escarpments and around L. Turkana catchment areas with Ethiopia.
- Anticipated damage to Agricultural productive areas in early planting stages which will lead to food insecurity and conflicts.

Advisories

- Disseminate climate information, community awareness, resource mobilization
- Expand the irrigation facility.
- Provide humanitarian assistance, particularly in Oromia, Tigray, Amhara, Somali, and Southern Nations, Nationalities, and People's Region, where there are ongoing socio-political conflicts that are hindering productivity.
- Disseminate the outlook and likely impacts with the implicated frontier county authorities of the countries.
- Activate cross border peace committees early enough to start engaging with communities on peaceful coexistence.
- Design for Water Harvesting, Herds to be allocated in highlands.
- Prophylactic maintenance, Mobile bridges to be ready in worst scenarios.
- crops Insurance, activate crop reserves

4.5 Water Resources and Energy

Key impacts

- Enhanced rain water harvesting in reservoirs and pans: This will secure water for use by pastoralist, irrigation and hydropower production during the dry spells (Djibouti, Ethiopia, South Sudan, Sudan); Water Pans and reservoir have the potential to reach maximum capacity (Ethiopia, South Sudan, Sudan)
- Enhanced groundwater recharge (Ethiopia, South Sudan, Sudan, Uganda): This will improve the coping capacity of communities during the dry season

- Water scarcity may be experienced in some basins that received below average precipitation in MAM (Kenya, Somalia)
- Water related diseases are possible in both the areas with water scarcity as well as areas with enhanced rainfall that leads to floods (Ethiopia, Kenya, South Sudan, Sudan)
- Possibility of floods landslides associated with high rainfall amounts can cause displacement and loss of life (Ethiopia, Kenya, Uganda)
- Further rise in Lake water levels due to enhanced rainfall is likely to cause further inundation, displacement of people and increased threat to infrastructure around the lakes (Kenya and Uganda)

Advisories

- There is need to conserve water for those areas that JJAS will be a dry season (Burundi, Kenya, Rwanda, Somalia & Tanzania)
- Update basin management plan based on the forecast (Ethiopia, Sudan)
- Provide early warning information to the communities and management of development projects particularly those in the water sector (Kenya, Somalia)
- Provide water trucking services to those in need of water and far from water sources (Kenya, Somalia)
- Provide early warning information on potential risks (Ethiopia, Kenya, South Sudan, Sudan and Uganda)
- Relocate population from low lying flood risk areas (Ethiopia, Kenya, South Sudan, Sudan and Uganda)
- Desilt water pans to improve capacity (Ethiopia, South Sudan, Sudan)
- Provide water treatment chemicals to household that rely on open water bodies for domestic water (Kenya, Somalia)
- Riparian countries are encouraged to share information on high river flows or extreme rainfall with their downstream transboundary neighbours to avert disasters!
- Monitor rivers, lakes and reservoirs that currently have high water level and with a forecast of enhanced June-September rainfall

4.6 Disaster Risk Management (DRM)

Key impacts

- Possibility for flash floods and riverine floods resulting in displacement of people, loss of life and livelihoods (Ethiopia, Kenya, Somalia, Sudan, South Sudan, Uganda).
- Conflict between farmers and Pastoralists (South Sudan).
- Waterborne disease outbreak (Ethiopia, Kenya, South Sudan).
- Landslide (Ethiopia, Uganda (Mt. Ruwenzori)).

Advisories

- Flood preparedness and contingency plans need to be in place (relocation).

- Multi-Agency DRM task force to plan and coordinate preparedness and response plans.
- Source for funding in advance for preparedness and response.
- Community awareness creation, sensitization, and dissemination of early warning information.
- Contingency plans need to be in place based on the regional and national (NCOF) forecast with multi-agency participation.
- Preparedness plans need to consider all possible scenarios as some extreme events might still occur even off-season such as cyclones and heavy rains.
- Early warning messages need to reach communities and stakeholders tied to early action.

4.7 Climate Change

The report of the Global Climate Status 2020 highlighted rapid changes in climate change indicators and worsening impacts. These rapid changes are driven by anthropogenic activities (human activities, human decisions). The global mean temperature for 2020 was 1.2 ± 0.1 °C above the 1850–1900 baseline.

What we have learnt:

- Temperature trend is expected to continue rising and rainfall extremes are expected to increase if we don't cut GHGs emission.
- Climate change is already having repetitive cycles of severe impacts across member countries and communities in the region.
- Vulnerable people devastated by CC impacts are forced to migrate for survival
- Resources to address climate change in member countries have been constrained by the COVID-19 pandemic and other economic pressures
- Inadequate efforts towards upscaling good practices and success stories across member states hinder progress on adaptation and mitigation goals
- National climate change policies and strategies require regional frameworks and coordination mechanisms

RESEARCH TO PRACTICE: POLICY RECOMMENDATIONS AND ACTIONS

- Data collection and analysis: Observations, forecasts, projections, downscaling
- Research and information have to target member countries' formulated climate actions through NAP / NDCs and other relevant policies and strategies
- Continue engagement across sectors – climate stakeholder mapping has been started by ICPAC through RICCAMA project
- Quantify and demonstrate the benefit for taking actions
- Scale up required human and technical capacity to mobilize resources and implement NDCs has to be provided to Member States

Plenary discussion

1. All IGAD countries are not considered for conflict. **Response:** Apologies. We were not able to get responses from all the focal persons in time for the presentation. we shall improve on that.
2. How could the expected early onset going to impact land preparation? **Response**: @Abera, from the forecast dates, some parts are expected to have rains starting as early as the first dekad of June. For farmers who have not prepared their lands, may anticipate normal onsets, this might get them off guard and will have limited time.
3. In Eastern parts of Ethiopia (Dire Dawa, Oromia/eastern Hararghe, and Somali region), the weather conditions of this year are different from previous years. i. e In this year it has only 10-13 days rained; but after that there is no rain up to now! **Response**: @Bayan, good question. This was also noted in the seasonal performance of rains over March and much of April.
4. @Caroline. Glad to know there has been an influence on policy and practice over the years. Do you know if any follow-up has been done to determine effectiveness and impacts? **Response**: Yes, we have seen improvement in the use of the forecast through monthly meetings to discuss the forecast.
5. Thanks Mr Eugene for the presentation, maybe there is some misunderstanding in terms of rains in this season because in Rwanda JJA is a dry season so I don't see how vegetation and trees will be available in such a dry season. **Response**: @Peace, yes RW is less concerned with the coming season, but we considered JJAS which include September, which is a wet month.
6. There is a need for IGAD countries to consider investing in the resources that we have - land and water resources so that the livelihood activities are not entirely dependent on weather conditions.

5. SESSION V: RELEASE OF FORUM STATEMENT AND CLOSING CEREMONY

After the reporting and discussions, ICPAC director was invited to officially release the statement and thereafter officially closed the meeting. The statement can be found in **Annex I**.

6. SESSION V: Side events

6.1 East Africa Hazards Watch – a new ICPAC climate service

There were 64 participants in attendance during the session whose main objective was to introduce users on the new platform called EA Hazards Watch. It was noted that they are increasingly becoming more interested in what the weather will do than what the weather will be. This was noted to be one of the reasons for developing the platform. The platform provides information on hazards, exposure/vulnerability and risk/impact. Additional categories have been added to the platform which now contains; Rainfall, temperature, climate change, agriculture, pests, food security, drought, floods, tropical cyclones, and socio-economic data. It was noted that there are plans to add more layers (e.g., warning layers and air pollution) to the system.

Participants were then taken through each category and other useful functionalities (e.g., share and other interactive functionalities) of the system. Some users requested layers on forest degradation to be included in the system. There was also a suggestion to make YouTube videos on how to operate the system. Another system which was introduced to participants was the East Africa Drought Watch which uses a convergence of evidence approach by combining different indicators such as rainfall, soil moisture, vegetation stress to classify different drought phases (watch, warning, partial recovery and full recovery).

6.2 Down2Earth Jake Rigby

There were about 59 participants present during the session which aimed at introducing the participants on the DOWN2EARTH project and to understand ways in which users might apply the hydrological model developed by the project team. The participants were informed that the DOWN2EARTH team had developed a novel hydrological model for the dryland regions given the unique/distinct hydrology found in such regions. The model (known as CUWALID) operates regionally across Kenya Ethiopia and Somalia can be used to assess the probability of flooding in the coming season compared to historical floods. It was noted that there were several ways of displaying the results including, terciles, probabilities, and characterization of uncertainty. The sectors that might find the model useful include, DRM, Agriculture water and environment.

ANNEXES

Annex I: Statement for the GHACOF 58

STATEMENT FROM THE FIFTY EIGHTH GREATER HORN OF AFRICA CLIMATE OUTLOOK FORUM (GHACOF58): 25-27 MAY 2021; ICPAC, NAIROBI METROPOLITAN AREA, KENYA

INTERNET-BASED LIVE FORUM

Consolidated Objective Climate Outlook for June to September 2021 Rainfall Season.

June to September (JJAS) constitutes an important rainfall season, particularly in the northern parts of the Greater Horn of Africa (GHA) where the JJAS rainfall contributes to more than half of the annual rainfall totals. Analysis of global climate model predictions from 9 Global Producing Centres (GPCs) customized for GHA indicates increased chances for wetter conditions during June to September 2021, with 8 of 9 model forecasts favouring wetter conditions (above average rainfall) over most parts of the region. Accordingly, Djibouti, Eritrea, much of the northern two-thirds of Ethiopia, South Sudan and Sudan are likely to experience a wetter than average season. Consistent with a predicted reduction in the number of continuous dry days, IGAD Cluster I (the Karamoja Cluster), which covers parts of Ethiopia, Kenya, South Sudan, and Uganda is indicated to have enhanced probabilities for a wetter than average season. Compared to historical occurrences, western Ethiopia, eastern South Sudan and southern parts of Sudan are predicted to have an enhanced probability for exceeding 400-600 mm accumulated rainfall during JJAS 2021 season. Despite the enhanced probabilities for increased cumulative rainfall, the number of continuous days with daily rainfall exceeding 5 mm is expected to be less than the historical averages over western Ethiopia and southern parts of Sudan.

Most ensemble members of dynamically downscaled predictions for GHA indicate an earlier than average start of the JJAS season over western Ethiopia, eastern South Sudan and southern parts of Sudan. However, the northern and eastern edges of the region including margins of northern Sudan, northern and eastern Eritrea, north-eastern and eastern Ethiopia and northern Somalia are predicted to experience a delayed start to the JJAS 2021 season.

The consolidated objective temperature forecast from 9 Global Producing Centres (GPCs) indicates an increased likelihood of warmer than normal surface temperatures over northern Sudan, eastern Eritrea, most parts of Ethiopia and Somalia, eastern Kenya and eastern Tanzania. On the other hand, southern Sudan, much of South Sudan, western half of Kenya,

Uganda, Rwanda, Burundi, and western parts of Tanzania are indicated to have enhanced probabilities for near average to cooler temperatures during JJAS 2021 season.

The World Meteorological Organisation (WMO) and the major global climate centres have noted that Sea Surface Temperatures (SSTs) over the equatorial Pacific Ocean have been close to the El Niño Southern Oscillation (ENSO) Neutral state thresholds over the past few months. Global models further indicate that the near neutral (negative) SST anomalies currently present in the tropical Pacific are expected to remain throughout the forecast period. The Indian Ocean Dipole (IOD), which is known to have significant effects during the short (October to December - OND) rains is also expected to remain in the neutral phase through the JJAS 2021 season. The influence of these ocean processes will interact with regional circulation patterns, especially monsoonal winds, Tropical Easterly Jet, and the Somalia Low-level Jet. Their effects also are modulated by topography and large inland water bodies. Updates on the ENSO condition will be provided regularly by WMO and the major climate centres.

The outlook is relevant for seasonal timescales and covers relatively large areas. Local and month-to-month variations might occur as the season progresses. While sporadic heavy rainfall is most probable over much of the monsoonal region, extended dry spells and below normal rainfall may occur in areas with an increased likelihood of near normal to above normal rainfall and vice versa. ICPAC will provide regional updates on regular basis while the National Meteorological and Hydrological Services (NMHSs) will provide detailed national and sub national climate updates.

The Climate Outlook Forum

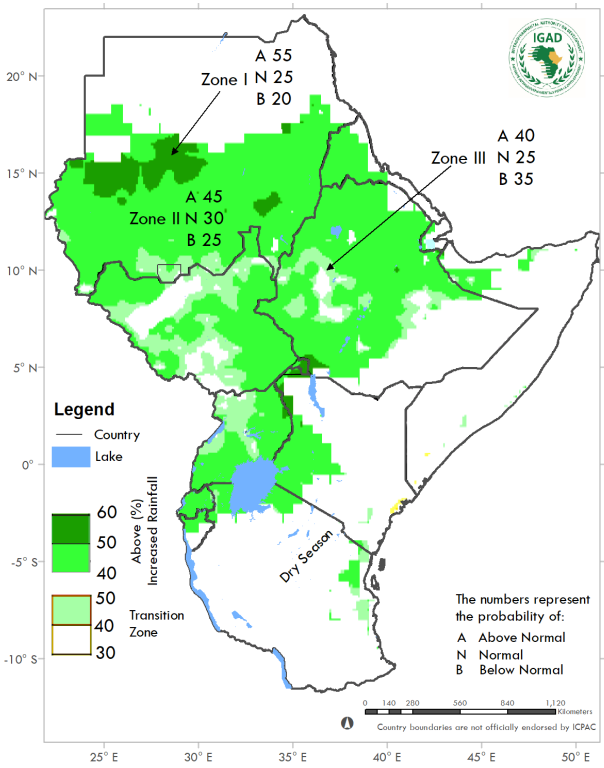
The Fifty-eighth Greater Horn of Africa Climate Outlook Forum (GHACOF58) was convened from 25th to 27 May 2021 by the IGAD Climate Prediction and Applications Centre (ICPAC) in collaboration with the National Meteorological and Hydrological Services (NMHSs) of IGAD Member States, World Meteorological Organization (WMO) and other partners to document and share the climate impacts across the region and to formulate responses to the regional climate outlook for the June to September 2021 rainfall season over the GHA region. The GHA region comprises Burundi, Djibouti, Eritrea, Ethiopia, Kenya, Rwanda, Somalia, South Sudan, Sudan, Tanzania and Uganda. The forum reviewed the state of the global climate system including the El Niño Southern Oscillation (ENSO) conditions, SSTs over Atlantic and Indian Oceans and IOD, and considered their impacts on the GHA during June to September 2021 rainfall season. Climate information users from sectors such as disaster risk management, agriculture and food security, livestock, health, environment, media, conflict, and water resources as well as non-governmental organisations and development partners actively participated in the formulation of mitigation strategies of the potential impacts of the objective climate forecast in their respective sectors.

Methodology

Guidance and valuable forecast information was drawn from a wide range of sources including the World Meteorological Organisation's Global Producing Centres (WMO GPCs) and National Meteorological and Hydrological Services. These inputs were combined using deterministic and probabilistic modelling techniques to obtain the regional consolidated objective rainfall forecast for the period June to September 2021. The objective seasonal forecast was developed during

the PreCOF58 one-week climate capacity building workshop held from 17th to 21 May 2021. During this workshop, regional scientists and national forecasters from 10 ICPAC Member States used ICPAC's FCDO-funded High-Performance Computing (HPC) cluster, through remote connection, and co-developed regional and national-level climate outlooks. GHACOF58 was preceded by sectoral co-production meetings from 25th – 26th May 2021.

Experts examined the prevailing and predicted SSTs over the Pacific, Indian and Atlantic Oceans as well as other global, regional and local climate factors that affect the rainfall evolution during JJAS season. These factors were assessed using dynamical and statistical models. The regional consolidated objective forecast is produced from outputs of 9 global state-of-the-art seasonal prediction systems. The current capability of seasonal to inter-annual climate forecasting allows for the prediction of departures from mean conditions on a regional domain, with consideration of scales of processes that contribute to regional and sub-regional climatic conditions. Forecast probability distributions are established objectively to indicate the likelihood of above-, near-, or below-normal rainfall for each zone. Above-normal rainfall is defined as within the wettest third of recorded rainfall amounts in each zone; near-normal is defined as the third of the recorded rainfall amounts centred around the climatological median; below-normal rainfall is defined as occurring within the driest third of the rainfall amounts. Climatology here refers to weather conditions, averaged over a 30-year period (1991-2020). Probability distributions for temperature are also established. The rainfall and temperature outlooks for June to September 2021 for various zones within the GHA region are given in Figure 1 and Figure 2, respectively.



Rainfall Outlook for June to September 2021

The rainfall outlook for various zones within the GHA region is given in Figure 1 above.

Zone I: In this Zone (dark green shading) the above normal rainfall (wetter) category has the highest probability. The probability varies with location and can be read from the

legend. For the most widespread dark green shade (50-60%) the probabilities for all three categories are provided.

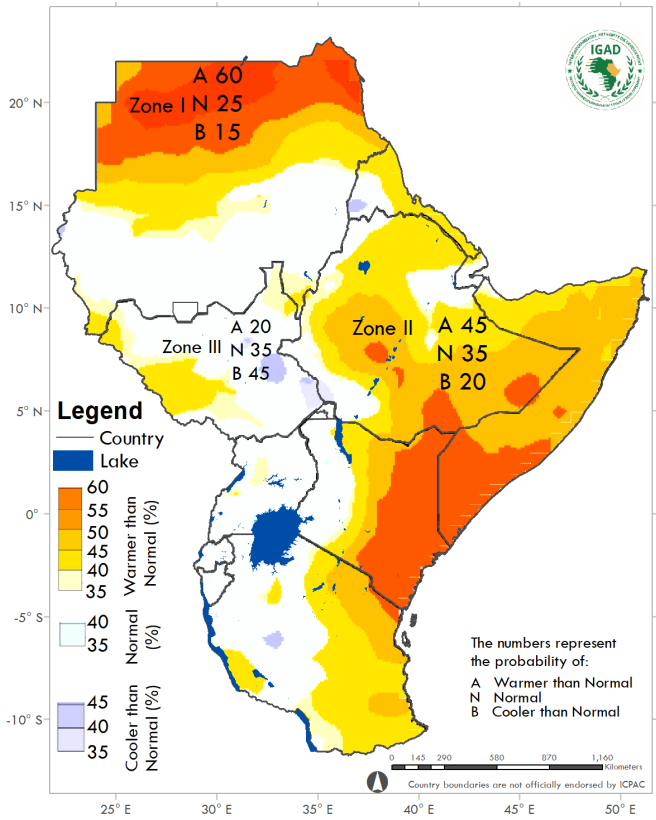
Zone II: In this Zone (all bright green shading) the above normal rainfall (wetter) category also has the highest probability. The probability varies with location and can be read from the legend. For the most widespread green shade (40-50%) the probabilities for all three categories are provided. The difference between Zones I & II is the increasing probability for the wetter than average category in Zone I.

Zone III: In this Zone (light blue to light green), the above normal rainfall (wetter) category has the highest probability (37-43%). The probabilities for the other categories are provided.

Zone IV: This Zone (white) is usually dry during June to September.

Temperature Outlook for June to September 2021

The temperature outlook for various zones within the GHA region is given in Figure 2 below.



Zone I: Enhanced likelihood for above normal mean temperature (i.e., warmer)

Zones II: Increased likelihood for near normal to above normal mean temperature

Zones III: Increased likelihood for below normal mean temperature (i.e., cooler

Note: The numbers for each zone indicate the probabilities of rainfall in each of the three categories, above-, near-, and below-normal. The top number (A) indicates the probability of rainfall occurring in the above-normal category; the middle number (N) is for near-normal and the bottom number (B) for below-normal category. For example, in Zone I in Figure 1, there is 55% probability of rainfall occurring in the above-normal category; 25% probability of rainfall occurring in the near-normal category; and 20% probability of rainfall occurring in the below-normal category. It is emphasised that boundaries between zones should be considered as transition areas.

Contributors

GHACOF 58 was organized jointly by the IGAD Climate Prediction and Applications Centre (ICPAC) and National Meteorological and Hydrological Services (NMHSs) of the Greater Horn of Africa (GHA). The forum was supported by the ClimSA Project funded by the European Union. Contributors to the regional climate outlook included representatives of NMHSs from GHA countries (Insititut Geographique du Burundi; Meteorologie Nationale de Djibouti; National Meteorological Agency of Ethiopia; Kenya Meteorological Service; Rwanda Meteorological Agency; South Sudan Meteorological Service; Sudan Meteorological Authority; Somalia Meteorological Authority and Uganda National Meteorological Authority) and climate scientists as well as other experts from national, regional and international institutions and organizations: ICPAC; Met Office, UK; and WMO Global Producing Centres (GPCs).

Annex II: Programme for GHACOF58

GHACOF58

Theme: "Climate services for early action"

27 May 2021

27th May 2021

TIME	ACTIVITY	FACILITATION
SESSION I: SETTING THE STAGE AND OFFICIAL OPENING		
09:30 – 10:00	• Participants join Airmeet and interact in the Lounge and through Speed networking • encourage use of speed networking. use the Q&A box, upvote questions	**MODERATOR** Fiona Percy Linda Ogallo
10:00 – 10:20	• **Opening Statement:** *Dr Guleid Artan,* ICPAC Director • **Briefing on the forum event**: *Zachary Atheru,* ICPAC • *Poll - have you used East Africa Hazards Watch? Yes, it is useful, Yes but with challenges, No but I would like to, No I am not interested*	**MODERATOR** Fiona Percy **RAPPORTEUR** Wawira Njoka
SESSION II: FEEDBACK ON MAM 2021 SEASONAL CLIMATE PERFORMANCE AND IMPACTS		
10:20 -10:30 *(7 minutes)*	• **Performance of March - May 2021** season over Eastern Africa: *Hussen Seid,* ICPAC	**MODERATOR** Viola Otieno
10:30-11:15	• **Overview of March to May sector impacts**	**RAPPORTEUR**

5 minutes each sector, 30 min in total + 15 min of plenary)	• Agriculture & Food Security *Oliver* • Conflict (CEWARN) *Andrew* • Disaster Risk Management *Ahmed* • Livestock and Rangelands *Caroline* • Water Resources & Energy *Mohammed* • Health *Paulino* *(Keep all people on stage)* Plenary Discussion (questions from Q&A box)	George Otieno
SESSION III: JUNE - SEPTEMBER (JJAS) 2021 SEASONAL FORECAST		
11:15 – 11:45	• Current state of global climate system: *Stefan Lines,* UK Met Office *(8 minutes)* • Seasonal forecast June - September 2021: *Zewdu Segele,* ICPAC *(12 minutes)* • Plenary Discussions *(10 minutes discussion)* *At end announcement with link by Host to all seasonal forecast products on EAHW*	**MODERATOR** Masilin Gudoshava **RAPPORTEUR** Eunice Koech
11:45 -12:00	**VIRTUAL BREAK**	
SESSION IV: SECTOR REPORTS ON IMPACTS AND ADVISORIES		
12.00 - 12.55	**Reporting by Sectors on key impacts and advisories** for JJAS 2021 season *(7 minutes per sector)* • Agriculture & Food Security • Livestock and Rangelands • Environment & Forestry • Water Resources & Energy • Disaster Risk Management (DRM) • Conflict • Health	**MODERATOR** Linda Ogallo **RAPPORTEUR** Jully Ouma
12:55 – 13:15	• Climate Change (5 minutes) • Media (5 minutes) • **Plenary discussion** (10 minutes) • **Announcement Side Events** (5 minutes)	Linda Ogallo Fiona Percy
SESSION V: RELEASE OF FORUM STATEMENT AND CLOSE OF THE FORUM		
13:20 – 13:30	Release of GHACOF 58 Statement	**MODERATOR** Zachary Atheru

13:30 – 14:30	**LUNCH BREAK**	
SESSION VI: SIDE EVENTS		
14:30 - 15:30 15:30 - 16:30	• East Africa Climate Hazards Watch *Abubakr Salih Babiker* • DOWN2Earth *Jake Rigby*	**MODERATOR** Abubakr Babiker **RAPPORTEUR** Herbert Misiani
CLOSING OF GHACOF 58		

Annex III: Press release

ICPAC

PRESS RELEASE

Wetter than usual season is expected over the northern parts of Eastern Africa

A wetter than usual June-to-September season is expected over Sudan, South Sudan, most of Ethiopia, and Uganda, indicating good prospects for pasture and crop production. The season is expected to start early in western Ethiopia, Southern and western Sudan, Southern Eritrea, northern South Sudan and Uganda and late in Eastern Ethiopia, northern Eritrea, and north-eastern Sudan.

27 May 2021, the upcoming rainfall season, June to September is an important rainfall season for Djibouti, Ethiopia, Eritrea, South Sudan, Sudan, and Uganda. For some of these countries it is the main farming season for their staple crops.

A wetter than usual season is expected in Djibouti, Eritrea, much of the northern two-thirds of Ethiopia, South Sudan, Sudan, and Uganda. The Karamoja Cluster, which covers parts of Ethiopia, Kenya, South Sudan, and Uganda is expected to experience a wetter than usual season. The forecast indicates a 15% higher-than-usual **chance** of receiving more than 400 mm accumulated rainfall during June to September over central Sudan and 5% increased chance of exceeding 400 mm over western Ethiopia and western South Sudan**.** Albeit the

expected wetter than usual season over western Ethiopia and southern parts of Sudan, there is a chance of having more than usual dry spells.

An earlier than usual start of the season is expected over western Ethiopia, eastern South Sudan and southern parts of Sudan. A delayed start to the season is expected in the eastern areas of the region including margins of northern Sudan, northern and eastern Eritrea, north-eastern and eastern Ethiopia and northern Somalia.

Warmer than usual temperatures are expected over northern Sudan, eastern Eritrea, most parts of Ethiopia and Somalia, eastern Kenya and eastern Tanzania. On the other hand, southern Sudan, much of South Sudan, western half of Kenya, Uganda, Rwanda, Burundi, and western parts of Tanzania are expected to experience cooler than usual temperatures.

The expected wetter than usual season is likely to increase the risk of vector prone diseases. Considering the ongoing simultaneous emergencies impacting the region, including the COVID19 pandemic, regional and national authorities are encouraged to use this seasonal forecast to develop contingency plans, and to update them with weekly and monthly forecasts provided by ICPAC and National Meteorological Services.

Note to editors: The 58th Greater Horn of Africa Climate Outlook Forum (GHACOF58) was convened online on 27 May by the IGAD Climate Prediction and Applications Centre (ICPAC) in collaboration with the National Meteorological and Hydrological Services in the region and other partners to issue the June to September 2021 rainy season forecast for the region. The virtual forum brought together climate services providers and users from key socio-economic sectors, governmental and non-governmental organizations, decision-makers, climate scientists, and civil society stakeholders, among others, to discuss impacts and mitigation measures for the upcoming season.

Media requests are welcomed. Please contact:

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Hashtag: #GHACOF58

Resources:

- Rainfall Forecast
- Temperature Forecast
- Onset Dates

- Onset Date Anomaly
- Dry/Wet Spells
- Probability of Exceedance

A Summary for Decision Makers with impacts and advisories for the following sectors will be released in the coming days:

- Agriculture and Food Security
- Livestock
- Water and Energy
- Conflict Early Warning
- Disaster Risk Management
- Health
- Environment and Forests

Annex IV: Contents of the summary for decision-makers

Contents Summary for Decision Makers GHACOF58

Contents Summary for Decision Makers GHACOF58 (JJAS)

DJIBOUTI

Disaster Risk Management	**Impacts** ● Possibility of occurrence of flash floods in Djibouti city **Advisories** ● Establish flood preparedness and contingency plans
Agriculture and Food Security	**No participation**
Water and Energy	**Impacts** ● Enhanced water storage due to the forecasted above average precipitation ● Possibility of secured water for use by pastoralists ● Enhanced groundwater recharge **Advisories** ● Desilt water pans and other storage facilities to accommodate maximum inflows

Livestock	**Impacts** ● Improved availability of pastures and water for livestock ● Improved milk production **Advisories** ● Watch out for flash floods that could lead to livestock losses especially in river beds ● Increase surveillance for Rift Valley Fever and Pneumonias ● Careful restocking is advised
Health	**Impacts** ● Risk of outbreaks of vector-borne diseases such as Malaria, Dengue fever ● Risk of Cholera ● Heatstroke **Advisories** ● Distribution of Mosquitoes net ● Wash hands often with soap and clean water, safe and well covered food ● Drink plenty of fluids and wear lightweight clothing
Conflict Early Warning	● **No participation**
Environment and Forestry	**Impacts** ● Normal to above normal rainfall expected in Djibouti. Good conditions for tree planting programme **Advisories** ● Reforestation and restoration activities of Day and Mount Mabla forests

ETHIOPIA

Disaster Risk Management	**Impacts** ● Floods and landslides are expected, which might result in displacement, loss of life and livelihoods mainly in flood

	prone areas and in lowland areas ● Risk of water-borne disease outbreaks **Advisories** ● Strengthened preparedness and awareness creation ahead of time ● Flood task force is activated already and will remain on standby for the season ● Prepare/review contingency plans with relevant sectors
Agriculture and Food Security	**Impacts** ● Good crop prospects due to conducive conditions for planting or sowing of crops ● Likelihood of a reduction in pests. Eg. Fall Armyworm ● Early onset likely to impact on land preparation time ● Likelihood of floods and water logging incidents within the season in prone areas (Afar, eastern Amhara, SNNP) ● Desert locust outbreak highly likely due to high rainfall that will result in good vegetation ● Humid and moist conditions are suitable for weed infestation. Intermittent moist condition might be favorable for pest and disease outbreak over moisture stress areas **Advisories** ● Early distribution of seeds and fertilizers ● Early land preparation ● Remain Alert due to risk of heavy rainfall and build conservation structures ● Issue Early Warning and Advisory for Desert Locust ● Farmers advised to make small water channels on their land plot and advised to strengthen soil and water conservation mechanisms ● Plant water tolerant crops in places where the usual or higher than usual rainfall is predicted
Water and Energy	**Impacts** ● Enhanced inflows to the countries water storage facilities for water supply irrigation and hydropower ● Risk of riverine and flash flooding **Advisories**

	● Create awareness to communities that are at risks associated with floods due to enhanced rainfall forecast ● Update basin management plan based on the forecast ● Provide early warning information on potential risks
Livestock	**Impacts** ● Good production of fodder in zones with good rainfall ● Poor pastures expected in the Borena areas and in the Somali region. High livestock movements are expected in these areas and with this comes disease sharing among herds and conflicts over the limited resources ● Likely persistence of the desert locust in the country **Advisories** ● Flood control in flood prone areas ● Fodder harvesting and preservation is advised ● Close monitoring of seasonal performance in Borana and Somali region ● Conserve water and pastures/fodder in the areas receiving good rains during this season ● Conduct awareness-raising campaign, as soon as possible to avoid negative impacts ● Monitor Desert locust
Health	**Impacts** ● Risk of Malaria and Chikungunya transmission/outbreak in regions of enhanced rainfall ● Possibility of Cholera outbreak ● High incidence in Eastern parts of Ethiopia **Advisories** ● Residual spraying and insecticide-treated bed nets ● Use mass media in passing the key messages in vector control ● Cholera surveillance in areas expected to be hot than usual
Conflict Early Warning	**Impacts** ● The season is the major cropping season for the Tigray region ● The good agriculture prospect might lead to conflict over land and agricultural input

	● The ongoing conflict in the region may also hamper adequate utilization of the season. ● Active conflict expected around the northern basin of L. Turkana owing to the anticipated migration of Turkana herders **Advisories** ● Disseminate climate information, community awareness, resource mobilization ● Expand the irrigation facility. ● Provide humanitarian assistance, particularly in Oromia, Tigray, Amhara, Somali, and Southern Nations, Nationalities, and People's Region**,** where there are ongoing socio-political conflicts that are hindering
Environment and Forestry	**Impacts** ● Expected enhanced rainfall good for tree planting programme ● Likely increased forage and biomass for both wildlife and livestock ● High rainfall likely to cause land degradation/soil erosion especially in the highlands **Advisories** ● Right timing of tree planting programme ● Land management and soil conservation initiatives

KENYA

Disaster Risk Management	**Impacts** ● Flooding in western parts of the country, mainly in the flood prone areas ● The dry conditions in the east might contribute to resource-based conflict mainly in the arid and semi-arid areas ● Cholera outbreak is expected over the western part of the country **Advisories** ● Conduct early awareness raising campaigns and community sensitization ● Activate drought contingency plan for ASAL and flood contingency plans for the western parts of the country ● Preposition food and non-food items for communities that

	might be affected during this season ● Multi-Agency teams to plan and coordinate preparedness plans and response such as ministry of health to assist ● Relocation of communities at high risk of flooding in advance
Agriculture and Food Security	**Impacts** ● Enhanced rains to contribute positively to crop production (harvest in September) ● The heavy rainfall and cold conditions will not be very favourable for the harvesting of Beans in western Kenya **Advisories** ● Put in place proper post-harvest handling for beans
Water and Energy	**Impacts** ● Water scarcity may be experienced in some basins that received less than usual precipitation during the March - May rainfall season ● Possibility of floods landslides associated with high rainfall amounts can cause displacement and loss of life particularly in the Lake basin ● Further rise in Lake water levels due to enhanced rainfall is likely to cause further inundation, displacement of people and increased threat to infrastructure around the lakes **Advisories** ● There is need to conserve water for the areas that will experience a dry season ● Provide water trucking services to those in need of water and far from water sources ● Provide early warning information on potential risks
Livestock	**Impacts** ● Pastures and fodder production will go down, animal body conditions expected to decline ● There are high chances of more animal migrations in the region. With this comes conflict and disease sharing among herds. Poor animal body conditions mean lower immunity and hence higher susceptibility to infections **Advisories** ● Monitor closely seasonal performance ● Conduct routine control Trans-boundary Animal diseases

	(TADs) ● Conduct awareness-raising campaign, as soon as possible to avoid those negative impacts
Health	**Impacts** ● Increased probabilities of vector-borne diseases especially malaria in Western and north-western Kenya ● In the Coastal Kenya elevated incidence of Dengue fever and malaria in some parts may be experienced ● No change is expected in terms of disease patterns in the rest of the country **Advisories** ● Risk communications to areas at risk of outbreak of malaria and dengue ● Social behavior change communications on public and household prevention strategies and promotion of prompt care seeking ● Provision and prepositioning requisite treatment commodities. eg. Medicines, diagnostics and supportive care supplies ● Provision of emergency funding to at-risk health care systems for any outbreaks management operations ● Intensify surveillance of all climate sensitive/induced diseases
Conflict Early Warning	**Impacts** ● Anticipated congregation of herders along the mountainous border escarpments with Uganda. ● Anticipated migration of herders towards the north of L. Turkana and the border areas with Ethiopia. ● Heightened conflict between cross border communities along the border escarpments and around L. Turkana catchment areas with Ethiopia. **Advisories** ● Disseminate the outlook and likely impacts with the implicated frontier county authorities of the ● Activate cross border peace committees early enough to start engaging with communities on peaceful coexistence.
Environment and Forestry	**Impacts** ● Enhanced rainfall especially in the western parts of Kenya to

	benefit forests and planted trees growth and warmer than usual temperatures in the eastern parts of Kenya likely to: Reduce the forage and water for wildlife and likely to cause human wildlife conflicts around protected areas; Speed up the drying of vegetation and increase the wildfires. **Advisories** ● Continue the initiated tree planting programme ● Monitor human-wildlife conflict hotspots areas ● Conduct fire management practices especially in the fire hotspots areas e.g., Tsavo, Aberdares and Mt Kenya

SOMALIA

Disaster Risk Management	**Impacts** ● Coastal Somalia to have water availability for domestic and livestock use ● Although this is not the main rainy season, storms might affect the coastal areas like the previous JJAS season and livelihoods might be disrupted ● Likelihood of flash flood over coastal Somalia ● Temperature is likely to be cooler over the south due to cool wind and storms ● Northern parts of the country expected to experience high temperatures **Advisories** ● Conduct national Climate outlook forum (NCOF) for Somalia with relevant sectors to design measures that will be taken during the season ● Sub-national COF for selected districts that will be impacted negatively by the JJAS season ● Put in place cyclones Preparedness plans ● Communities in the northern parts to monitor the temperature rise and take the necessary measures
Agriculture and Food Security	**Impacts** ● Water stress over most parts of the country ● Decreased crop production due to water stress ● Limited damage of land area by Desert Locusts ● Drought conditions over regions expected to be dry

	● Possibility of floods / flash floods in the North **Advisories** ● Cultivate short cycle crops (Early maturing varieties) ● Monitor closely river levels and drought conditions by concerned authorities ● Households advised to move closer to water sources and practice water harvesting ● Undertake rehabilitation of flood affected infrastructures like canals and embankments ● Continued Humanitarian support for regions that are food insecure
Water and Energy	**Impacts** ● Water scarcity may be experienced in some districts that received below average precipitation during the March - May rainfall season **Advisories** ● Conserve water for those areas that will experience a dry season from June to September ● Provide water trucking services to those in need of water and far from water sources
Livestock	**Impacts** Animal movements to occur in some areas due to inadequate water and pasture **Advisories** ● Take advantage of the expected good market prices due to the Hajj to sell their livestock ● Conduct close monitoring of season's performance
Health	**Impacts** ● Increased Malnutrition rate due to seasonal crop failure resulting in food insecurity among Women and children in the farming communities, IDPs and urban poor ● Increased AWD/Cholera outbreak due to shortage of Water and deteriorated hygienic conditions among IDPs and vulnerable communities ● Increased population displacement due to drought and food insecurity

	Advisories ● For Malnutrition: Enhance Nutrition Promotion interventions to reduce malnutrition, establishment stabilization centres, supplementary feeding, Nutrition screening, provision of Cash assistance to malnourished families ● For AWD/Cholera: Implement all preventive measures including hygiene promotion, water source purification and case management interventions of AWD/Cholera in the affected areas ● Increase food aid
Conflict Early Warning	● **No participation**

SOUTH SUDAN

Disaster Risk Management	**Impacts** ● Floods expected over Jongle and Upper Nile states. This could lead to disease outbreaks and displacement of people ● Risk of conflict among farmers and pastoralist over central and eastern equatorial where farming take place due to completion for resources ● There might be issues of access in flood affected areas and this needs prepositioning food and non-food items to optimal locations in advance **Advisories** ● Engage national DRR platform and early warning working group members to meet and advise on the response strategies. ● Conduct national COF with the support of the national meteorological office to have a good contingency plan and specific advisories ● Publish early warning bulletin and policy briefs and disseminate to stakeholders ● Prepare contingency plans for response and engage partners
Agriculture and Food Security	**Impacts** ● Limited disease outbreaks e.g. fall armyworms ● Increase of production acreage due to favourable

	conditions ● Limited storage facilities for first harvest which might lead to post harvest losses ● Likelihood of transportation problems due to damaged roads ● Difficulties in hiring labor **Advisories** ● Early distribution of seeds for the second season ● Practice proper post-harvest management for the March - May crops ● Conduct continuous monitoring of the season including use of forecast updates
Water and Energy	**Impacts** ● Enhanced inflows into the country from upstream countries due to enhanced rainfall particularly in Ethiopia and Uganda ● Risk of riverine and flash flooding and prolonged water logging condition ● Delayed/difficulties in dykes repair work due to wet ground/water logging condition **Advisories** ● Create awareness to communities that are at risk associated with floods due to enhanced rainfall forecast ● Provide early warning information on potential risks
Livestock	● **No participation**
Health	**Impacts** ● Risk of ARI (Acute respiratory infection), AWD (Acute Watery diarrhea), ABD (Acute bloody diarrhea), Malaria, Measles, RVF (Rift Valley Fever) and HEV (Hepatitis E Virus). **Advisories** ● Prepositioned IPC materials and outbreak investigation kits ● Conduct follow up serological testing, already planned at UVRI ● Continue community awareness, already in progress, to mitigate risk of RVF spreading from animals to human by observing RVF preventive measures

	● Encourage integration of all Community resources networks (ICMN, Hygiene promoters, nutrition workers, EPI team, Animal health workers, Polio team and BHI workers) to support risk communication and AHR surveillance in Human and Animals
Conflict Early Warning	● **No participation**

SUDAN

Disaster Risk Management	**Impacts** ● Riverine floods along the Blue Nile and the White Nile are expected. This could damage public utilities and houses, disrupting the lives and livelihoods of communities ● Urban floods for Darfur, Kasala and Khartoum, among others ● High temperature over the northern part, this will have less impact as there are less to no population in such places **Advisories** ● Conduct emergency preparedness planning and coordinate response ● Ensure source for funding in advance for preparedness and response ● Conduct community sensitization and engagement ● Share forecast with the flood task force which will include Sudan Met office, national NGOs and other stakeholders
Agriculture and Food Security	**Impacts** ● Likelihood of floods and waterlogging incidences **Advisories** ● Establish plan for the summer season in terms of land to be cultivated and crop composition ● Extension staff to advise on timing for sowing and crop selection including determining the quantity and type of seeds to be provided to smallholders. For areas of that will experience poor rains, early maturing varieties should be distributed and high yield variety to the areas of above average rains

	● Undertake rehabilitation of drainage systems especially in flood prone areas ● Undertake early transportation of agricultural inputs to the areas where roads were cut by rains ● Encourage planting of water melon seeds as cash crop in flood prone areas ● Farmers should cultivate crops that resist excessive rains to substitute crops that are not resistant to excessive rains like sesame
Water and Energy	**Impacts** ● Enhanced inflows into the country from upstream countries due to enhanced rainfall particularly in Ethiopia and South Sudan ● Risk of riverine and flash flooding and prolonged water logging condition ● Enhanced water storage due to the forecasted above average precipitation **Advisories** ● Create awareness among communities at risk on the risks associated with floods due to enhanced rainfall forecast ● Update basin management plan based on the forecast ● Provide early warning information on potential risks
Livestock	**Impacts** ● Improved pasture regeneration and water harvesting ● Seasonal Animal movement expected from South Sudan to southern part of Sudan (South and East Darfur, South Kordofan, White Nile, Blue Nile and Sinnar) up to central states (North Kordofan, Gadarif and Kassala states) to avoid flies and mosquitoes leading to disease sharing among herds **Advisories** ● Conduct flood control measures in flood prone areas ● Conserve water and pastures/fodder in the areas receiving good rains during this season ● Control vector-borne diseases, conduct deworming, vaccinations ● Conduct routine control Trans-boundary Animal diseases (TADs)

Health	**Impacts** ● Risk of Malaria outbreaks due to increase in mosquitoes breeding ● Risk of diarrheal diseases like Acute Watery Diarrhea, Typhoid, and Dysentery due to poor sanitation which leads to breeding **Advisories** ● Ensure allocation of resources to controlling outbreaks, including mosquito control measures ● Provide safe drinking water ● Ensure availability of vaccines
Conflict Early Warning	**Impacts** ● The season is expected to be wetter than usual over most parts of the country providing a good prospect for agriculture and pasture generation ● This is the season of agriculture production and seasonal movement of pastoralists, which increase the risk of conflict between the two farmers and pastoralists ● Increase risk of conflict over land, especially in western part of the country due the delicate security situation **Advisories** ● Maximize the benefit from the season by increasing water harvesting effort to save water for the dry season ● Mobilize communities and the relevant authorities to identify migration routes for pastoralists and ensure pasture land is protected from agricultural use, to reduce conflict risk ● Mobilize security forces and traditional peacebuilding mechanisms community to protect farmers in remote areas of western part of the country
Environment and Forestry	**Impacts** ● Above average rainfall is expected in most parts of Sudan likely to: Increase growth rate of trees and seed production; Increase fodder grass likely to attract considerable nomads groups, leading to damage regeneration and young trees. Potential of production of Gum Arabic affected

	Advisories ● Tree planting and encourage tending operations ● Forest conservation activities by protecting the younger regeneration and trees

UGANDA

Disaster Risk Management	**Impacts** ● Risk of flooding over the western parts of the country to continue in the coming season ● Currently there is a challenge of getting land to relocate communities affected by floods ● Mt. Ruwenzori area is expected to experience landslides ● The country is expected to have enhanced agricultural production **Advisories** ● The Office of the Prime Minister to intensify early warning to reach communities in affected areas ● Sensitization and dissemination of early warning information ● Early action to be taken to relocate people by the government to save lives ● Review contingency plan and ensure it is in place
Agriculture and Food Security	**No input from Uganda**
Water and Energy	**Impacts** ● Further rise in Lake water levels due to higher than usual rainfall is likely to cause further inundation, displacement of people and increased threat to infrastructure around the lakes ● Delayed/difficulties in repair work due to wet ground/water logging condition **Advisories** ● Conduct continuous monitoring of the rivers and Lakes to avert disasters ● Provide early warning information on potential risks
Livestock	**Impacts** ● Good pastures and water harvesting to prevail as well as

	good animal body conditions ● Honey production expected to increase due to adequate flowers and water ● Diseases associated with wet conditions in areas expected to have higher than usual rainfall. Parasitic diseases, Tse Tse and ticks are expected to prevail **Advisories** ● Conserve water and pastures/fodder in the areas receiving good rains during this season ● Control of vector-borne diseases, deworming, vaccinations ● Conduct routine control Trans-boundary Animal diseases (TADs) ● Continue control measures of African Swine Fever, CBPP, PPR Foot and Mouth Disease ● Conduct flood control measures in flood prone areas ● Intensify Zones 1 & 2 Poultry disease control, especially Gumboro and Coccidiosis
Health	**Impacts** ● Likelihood of malaria incidence in most parts of the country particularly in Karamoja, eastern Uganda, central and south-western Uganda ● Likelihood of Cholera outbreaks in Cholera prone districts particularly in the districts of Kasese and Ntoroko in south-western Uganda and Busia, Bulambuli, Namayingo in eastern Uganda **Advisories** ● Continuous monitoring and surveillance of the disease with a focus in Karamoja, eastern, central and south-western regions ● Conduct Health education and social behavior change communication to contribute to prevent outbreaks ● Prioritize the regions above in the routine distribution of nets ● Buffer stocks of antimalarials and mRDTS in those regions ● Conduct continued Surveillance for Cholera in the cholera prone districts especially Kasese, Ntoroko, Bulambuli Namayingo, Busia and Karamoja
Conflict Early Warning	● **No participation**

BURUNDI

Disaster Risk Management	● **No participation**
Agriculture and Food Security	**Impacts** ● A reduction of rivers and lake levels during March - May rainfall season have caused damage to livelihoods and crops ● A reduction in post-harvest related losses for the last March-May season crops **Advisories** ● Cultivate drought tolerant and short cycle crops like tubers (sweet potatoes, cassava or crops like vegetables in swampy areas and strengthen small scale irrigation schemes ● Promote kitchen garden technologies
Water and Energy	**Impacts** ● Good availability of water supply for municipal, irrigation and stable hydropower supply ● The current high lake level will be sustained over the June-September period **Advisories** ● Implement water conservation measures to take the country through the dry season ● Conduct continuous monitoring of the rivers and Lakes to avert disasters
Livestock	● **No participation**
Health	**Impacts** ● Risk of Malaria outbreaks ● Acute watery Diarrhea, Cholera **Advisories**

	● Sensitization of the community to seek treatment on time and on Bed nets utilization ● Case management and ITNs distribution to target population
Environment and Forestry	**Impacts** ● Environment and forests to continue to benefit from high rainfall **Advisories** ● Continuation of tree planting campaigns

RWANDA

Disaster Risk Management	● **No participation**
Agriculture and Food Security	**Impacts** ● Post-harvest losses likely for season B crops ● Floods and waterlogging incidents that might negatively affect Season C crops **Advisories** ● Ensure effective post-harvest strategies, avail post-harvest equipment, rehabilitate some warehouses for Season B crops ● Distribute seeds and fertilizers on time, in readiness for season C season
Water and Energy	**Impacts** ● Good availability of water supply for municipal, irrigation and stable hydropower supply ● The current high lake level will be sustained over the June-September period **Advisories** ● Implement water conservation measures to take the country through the dry season ● Continuous monitoring of the rivers to avert disasters
Livestock	● **No participation**

Health	**Impacts** ● Rwanda is expecting the increase of malaria cases between May and June in endemic districts of the Eastern and Southern Provinces and hot spots of malaria are expected in Western Province around lake Kivu ● Cases of Schistosomiasis are expected in all districts of Rwanda and more cases of soil-transmitted Helminthiasis are expected in many districts of the western province, few districts of southern province bordering the western province and few districts of the Northern province **Advisories** ● Continue, IRS combined with the distribution of standard nets, which is already being conducted in all endemic districts (12) of the eastern and southern provinces and the extreme southern west region of Rwanda known as a high endemic area ● Districts with moderate endemicity without IRS have received the new generation LLINs (G2 LLINs) and PBO LLINs while Standard Nets were distributed in Districts with low endemicity
Conflict Early Warning	● **No participation**
Environment and Forestry	**Impacts** ● Enhanced rainfall will increase water availability and higher moisture available for vegetation and trees growth ● High rainfall likely to cause land degradation/soil erosion especially in the highlands **Advisories** ● Promote Tree planting and setting up of tree nurseries ● Promote land management/soil conservation and landscape restoration on affected lands

TANZANIA

Disaster Risk Management	● **No participation**

Agriculture and Food Security	● Normally dry during June to September, no major agricultural activities. Only irrigated land has crops
Water and Energy	**Impacts** ● The current high lake level will be sustained over the June-September period ● Water scarcity may be experienced in some basins that received below average precipitation during the March to May season **Advisories** ● Water conservation needs to implemented to take the country through the dry season ● Continuous monitoring of the rivers and Lakes to avert disasters
Livestock	● **No participation**
Health	**Impacts** ● Risk of outbreaks of Malaria, Schistosomiasis around lake region ● Increase in typhoid and other diarrheal diseases ● Risk of sporadic Cholera, Dengue outbreaks **Advisories** ● Intensify malaria and schistosomiasis control interventions in lake region ● Ensure availability of clean water and treatment tabs to communities ● Intensify mosquito control interventions, including larvicide, environmental management ● Rehabilitate rain water drainage to avoid flooding
Conflict Early Warning	● **No participation**