Workshop report on regional states assessment of Belg 2022 climate and climate outlook of the upcoming Kiremt 2022

Asaminew Teshome | Teferi Demissie

Workshop report

CGIAR | AICCRA
Accelerating Impacts of CGIAR Climate Research for Africa

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Accelerating Impacts of CGIAR Climate Research for Africa (AICCRA)

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Asaminew Teshome
Teferi Demissie

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About AICCRA reports

Titles in this series aim to disseminate interim climate change, agriculture, and food security research and practices and stimulate feedback from the scientific community.

About AICCRA

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Contact us

Accelerating Impacts of CGIAR Climate Research for Africa (AICCRA). Email: aiccra@cgiar.org

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About the Authors

Asaminew Teshome is a Lead Executive Officer for Meteorological Forecast and Early Warning at the Ethiopian Meteorology Institute.

Teferi Demissie is a Senior Climate Scientist and Modeler at AICCRA Eastern and Southern Africa at the International Livestock Research Institute (ILRI).

Acronyms

AI	Aridity Index
AICCRA	Accelerating the impact of CGIAR climate research for Africa
EMI	Ethiopia Meteorology Institute
MI	Moisture Index
MoWE	Ministry of Water and Energy
NCOF	National Climate Outlook Forum
NDVI	Normalized Difference Vegetation Index
NFCS	National Framework for Climate Services
PET	Potential Evapotranspiration
RA	Regional Association
RCOF	Regional Climate Outlook Forum
RF	Rainfall
RMCS	Regional Meteorological Service Centers
SPI	Standardized Precipitation Index
WMO	World Meteorological Organization
WRSI	Water Requirement Satisfaction Index

1. Background

The eleven regional meteorological services centers under EMI, has been generating and disseminating consensus based user relevant seasonal climate outlook products in real time to reduce climate related risks and support sustainable development for the coming season in sectors of critical socioeconomic significances for their region. The RMSCs typically has been held tri-annual seasonal climate outlook forums where regional representatives from sectors like agriculture, health, water and disaster risk reduction gather to review the previous seasons climate performance and the likelihood of the upcoming seasons climate outlook and its implication on the most pertinent socioeconomic sectors in the given region.

EMI in collaboration with AICCRA was held a workshop entitled "Regional states assessment of Belg 2022 climate and climate outlook of the upcoming Kiremt 2022". The overall objective of the workshop was to provide the overview of Belg 2022 performance and consensus seasonal climate outlook for Kiremt 2022 and its potential impacts on water, health, agriculture over each of the regional states. The workshop was attended by heads and experts from regional states representing agriculture, health and water offices, EMI director general, directors and experts, scientists from AICCRA and the media.

Three important sessions were enjoyed at the workshop. Welcoming remark by Dawit Solomon from AICCRA, opening speech by Asaminew Teshome were parts of the first session. During session two, presentations on overview of AICCRA project focusing on EMI were made by Teferi Dejene, national assessment of Belg 2022 climate performance by Tamiru Kebede, EMI and consensus national Kiremt 2022 climate outlook by Chali Debele, EMI.

The workshop gave participants an opportunity to know more about EMI and interact with director general of EMI.

This report presents summary of the workshop.

2. Objectives of the workshop

The objectives of the workshop were to present and discuss regional states:

- The February–May 2022 climate performance assessment.
- June–September 2022 climate outlook of each of regional states.
- Impact assessments of Belg 2022 on key socioeconomic sectors (health, water, energy, and agriculture).
- Potential impact of the upcoming Kiremt on key socioeconomic sectors (health, water, energy, and agriculture).

3. Session I: Opening remark

Dawit Solomon, AICCRA

Dawit Solomon welcomed the participants and provided them with some background information on AICCRA project.

Climate information is vital to all socioeconomic sectors. Besides generating climate information, how it reaches to end users and help to reduce impacts and maximize the opportunities is a big issue which requires integrated effort among EMI, its stakeholders and partners. NFCS-E is a big success for our country as well as EMI. AICCRA has been assisted EMI on different areas including NFCS-E endorsement NCOF, RCOF. We will continue to support and work together with EMI.

Finally, he welcomed and wished everyone a successful workshop.

Official opening speech

Asaminew Teshome, lead researcher and advisor to director general of EMI

Asaminew Teshome welcomed all on this important and timely workshop on behalf of EMI. EMI has been building its capacity to provide weather and climate services that can be used to reduce risks and maximize opportunity. He said we will be committed to serve our stakeholders both at headquarters and RMSCs. The institute is working with key sectors under the umbrella of NFCS-E. EMI have been codesigning, coproducing and coevaluating the climate services with key stakeholders. Such collaborative work helped us a lot and will continue up to the lower government structure.

Dear participants

As you all know Ethiopia has three seasons and these seasons have unique features on different areas of our country. EMI uses different types of modern stations data and models to provide timely weather and

climate information. The institute has issued Belg 2022 climate outlook and its implications on the critical sectors a couple of months ago and there is a good agreement between the forecasted and the observed one.

This workshop was organized with the aim to assess the Belg 2022 climate performance and to the present the Kiremt 2022 climate outlooks along with its potential impacts on key sectors over each of the regional states.

Finally, he urged everyone to use the forecast as well as the updates that will be given on dekedal and monthly basis and wished all a successful workshop.

4. Session II: Summary of presentations

Overview of AICCRA project, Teferi Dejene (PhD)

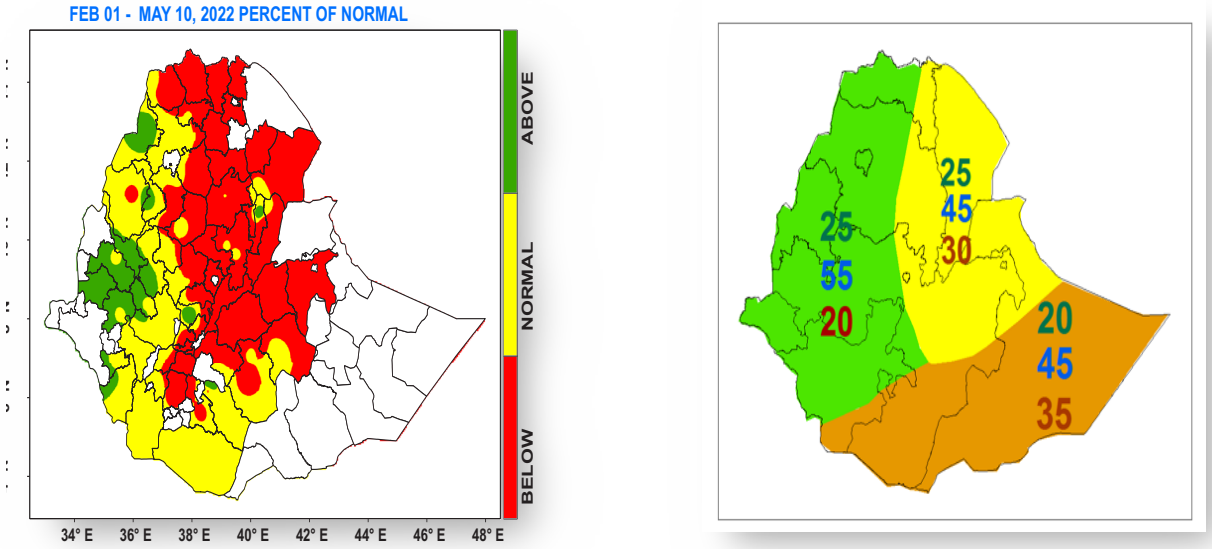
Teferi Dejene provided the participants with an overview of the AICCRA project. He explained the proposed activities under one of the projects components which is improving climate services. The activities are designed mainly to improve the capacity of the research activities and services of EMI as well as supporting the implementation of NFCS-E. The progress made so far and the remaining activities which are going to be done before the end of 2022 were his next point of talk. According to him, capacity building on Py-CPT for EMI experts awn from both the headquarters and the regional meteorological centers, support for ENFCS-E endorsement, NCOF and RCOF meetings were the activities performed. While the following activities will be supposed to be accomplished on the remaining months of 2022.

- State of climate of Ethiopia
- Automate EMI's climate bulletin
- Strengthen the development of medium range forecasting
- Flood forecasting tool to strengthen EMI's research activities

Continue to support NFCS-E implementationBelg 2022 climate performance, Tamiru Kebede, EMI

Tamiru provided some background information on common characteristics observed and global systems affecting the season. He presented the Belg 2022 season climate performance which included the rainfall onset, amounts, distribution and impacts during each dekade, months and the season.

Figure 1. Percent of normal rainfall for 1 February–10 May 2022 (left) and probabilistic forecast of Belg 2022 (right).



The summarized climate outlook assessment of Belg 2022:

- The strengthening of La Niña and the frequent occurrence of tropical cyclones in the southwestern Indian Ocean particularly in February has contributed to a shortage of moisture incursion.
- The mid latitude trough which usually interact with easterly moist air has been severely weakened this season.
- The onset was too late, the amount and distribution were erratic.
- Dominantly below normal rain was recorded across most of the Belg rain benefiting areas of the country.
- Prolonged y spells were noticeably observed.
- In general, poor performance of rainfall was observed from February–10 May 2022.

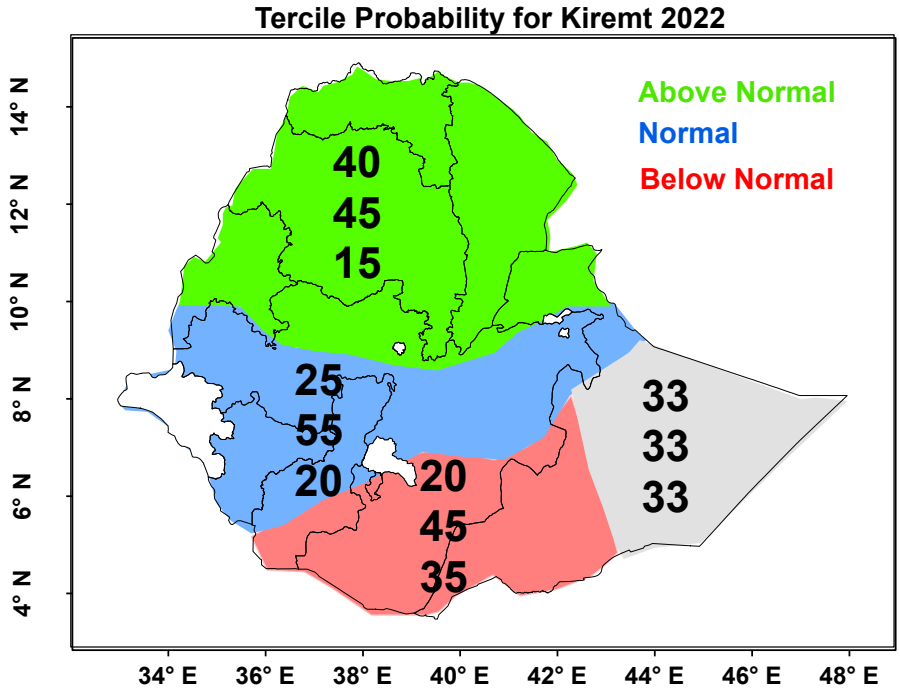
Climate outlook for Kiremt (June–September) 2022 season, Chali Debele, EMI

Chali Debele, director of meteorological forecast and early warning directorate presented the upcoming Kiremt 2022 climate outlook. According to her presentation:

- Most of the recent and prognostic products are indicting the likelihood of the continuing of weak La Niña episodes in the coming performance of Kiremt 2022.
- Hence, it has positive contribution for the wet performance during the Kiremt season.
- Besides, negative IOD is expected through JJAS 2022.
- Dominantly, normal to above normal rainfall is expected to prevail across the northern regions.
- An increased chance of the domination of close to normal rainfall is anticipated across west, southwest, central and eastern Ethiopia.
- Southern parts, normal to below normal rain are anticipated in the season.

- Normal onset will occur over much of the JJAS rain benefiting areas.
- Late cessation for few days of the Kiremt season; occasional heavy rains during July and August, may cause flood across flood prone areas, in line with these, landslide will occur over isolated places.
- Erratic temporal distribution, with few prolonged y spells during June and September.
- In general, with the anticipation of negative episodic event during the upcoming NH summer monsoon, it will have positive contribution for the wet performance in the Kiremt 2022 across most of the Kiremt benefiting areas.
- La Niña episode and negative IOD expected in Autumn, hence below normal Bega 2022/23 rainfall is expected across southern and southeastern lowland of Ethiopia.

Figure 2. The consensus climate outlook for Kiremt 2022.



5. Session III: Regional states Belg 2022 climate performance and climate outlook for Kiremt 2022 with its potential impacts on health, water, energy and agriculture

Summary of presentations

The third session started by introducing the Ethiopian meteorological institute regional climate service by Asaminew Teshome, following the introduction by Asalefew who is director of the central and eastern Oromia moderating on Oromia regional Kiremt 2022 seasonal forecast introducing Tizazu Geremew to give the assessment of Belg 2022 over Oromia region as follows: "during Belg 2022 there was late onset and the rainfall distribution was erratic and also dominating below normal rainfall over the region. Tizazu also noted that there is prolonged y spell." After the assessments he explained the upcoming Kiremt 2022 weather outlook for Oromia like this: "there will be La Niña and negative IOD expecting in global circulation this implication will be normal rainfall expected over most parts of Oromia and normal onset and cessation will happen".

Letter on the seasonal climate assessment and forecast by Mohamed Amini explained the impact of the Belg 2022 over agriculture as follows:

- The distribution of moisture during March shows increment from dekade to dekade and the month was passed through y to moderate y over most zones of the region except some pocket parts of the zones.
- The moisture performance during April month was better over most parts of the region except some parts of East Shewa, North Shewa, Horo Guduru, Arsi, West Harerghe and East Harerghe zones.
- During May first, humid moisture performance dominate western zones of the region were as central zone was under very y moisture condition and south to southeastern region was passed through y to moist moisture performance.

After the assessment Mohamed clearly explained the impact of expected seasonal rainfall and moisture status probabilities for Kiremt (JJAS) 2022 on agriculture enough moisture to sustain agricultural production, including the long cycle crops which are planted during April and May positive for seedling and tree planting (National Green Legacy Program) positive for fodder (margaaf) production and water storage.

After the two presentations Andamalk Kifle explained the Belg 2022 impact to water and health sectors, he stated that the past season during March 2022 mostly in arid to semi-humid conditions over most parts of the basins in Oromia region and in April favorable weather for malaria outbreak was observed in Ilubabor, Bale, Guji and Borena.

On session III Amhara RMSC RCOF

Sisay Kelemu facilitated the Amhara regional meteorological centers and Tilahun Sewagegn started to ad ess the Belg 2022 impact over Amhara region during February to May. In his presentation he showed that during February and March, the rainfall distribution was erratic and y spells dominantly observed. In addition to this below normal rainfall was recorded during February and March. Generally, below normal

rainfall was dominantly recorded over the region. On the second presentation he will show during Kiremt 2022 there will be high chance for normal to above normal rainfall over West Amhara zones. Similarly, Waghemera, North and South Wollo, Oromia Special zone and North Shewa will receive normal to above normal rainfall.

Sisay also introduced the second presenter form Amhara region as Begezaw Getu. Begezaw gave a presentation of the assessment of Belg 2022 and the impact outlook for Kiremt 2022 for agrometeorological, hy ometeorology and biometeorological points of view. In his presentation he shows the moisture status has no significant improvement of NDVI during February to April. On the other hand, the aridity index situation further improved towards the eastern part of the major rivers during the month of March and April 2nd and 3rd dekade.

Begezaw also presented a tercile probability for Kiremt 2022 based on a given 1985, 1989 and 2000 analog year most of Amhara region expected normal to above normal rainfall to get good moisture which is conducive for Meher agricultural activities, for early planted long cycle Meher crops as well as to plant medium term Meher crops and perennial plants.

On session III Gambela RMSC RCOF

Tesfahun Alemu from the director of Gambela regional meteorology service introduced Shimelis Shiferaw to present Belg 2022 seasonal climate assessment over Gambela region. Shimelis Shiferaw explained on the positive side of Belg 2022 season rainfall over the regions.

Then he described the main points of Belg 2022 season, as summary points as follows:

- During February unexpected rainfall was observed in north, east and southeastern area, which is good for late fruiting crops and grazing grass to pastoral's and it is wetter than normal climate.
- During March central and southern parts received better than other parts and is mostly y than other month and below normal rainfall observed except in some pocket areas.
- The onset of the Kiremt season already started early at April 1st dekade and rainfall frequently observed, and it was also wetter than normal climate.
- ENSO condition also observed below average temperature at sea surface and La Niña condition extended.
- In general, this season climate was wet and above normal rainfall and below average temperature climate observed in most parts of the region.

Shimelis Shiferaw briefly made a presentation on the "the upcoming Kiremt 2022 outlook", and gave a deep explanation about how important Kiremt rainfall to their region with different economic sectors.

He concluded his presentation by stating that—the following summary points—the Kiremt 2022 outlook was normal to above normal condition was expected throughout the region. It needs to take measurable action to heavy rains, it may be expected during July and August, may be the cause of flood occurrence, and landslide across some places of flood prone areas. So, it will have better attention on it. Although, we will give seasonal update forecast of each month.

Latter from Gambela climate assessment and outlook presentation by Tesfahun Alemu introduced Tadesse who presented the Belg 2022 seasonal rainfall assessment and the upcoming Kiremt 2022 seasonal forecast over biometeorology and agrometeorology points of view. Tadesse started his presentation by a Belg and Kiremt climatology which favors for comfortable and malaria outbreak in the region. He summarized his presentation as follows:

- In 2022 Belg season April month was most of the month will have uncomfortable heat conditions over all the selected stations.

- Belg season 2022 April month the station Abobo, Gambela and Fugnidow favorable climate condition for the outbreak of malaria over all parts of selected stations.
- During the Belg season THI in the month of March most of the selected stations were uncomfortable for 31 days.

Tadesse also gave a short presentation about the upcoming Kiremt season. He noticed that during Kiremt 2022 expected dominating normal rainfall in Gambela region and enable to get good moisture in which is conducive for Meher agricultural activities, perennial plants and availability of pasture and inking water.

On session III Afar RMSC RCOF

Solomon Tola from the director of Afar regional meteorological service introduced Gebre Yohans Gebre Silase to present a Belg 2022 climate performance. Gebre Yohans started his presentation by introducing dekadal and monthly Belg 2022 rainfall performance over Afar region. From his presentation he ad essed there was Belg 2022 late onset on the season and the rainfall amount and distribution were very small. Finally, he concludes the region received normal to below normal rain in Belg 2022 season.

Gebre Yohans Gebre Silase discussed that, based on the best analogs years 1985, 1989 and 2000 the rainfall for Kiremt 2022 over Afar will be normal to above normal seasonal rain is expected to prevail in the coming Kiremt season and normal onset and late cessation are expected during Kiremt 2022 season.

Solomon introduced Dereja Baye to present the impact of Belg 2022 and the upcoming Kiremt 2022 season for agrometeorology and biometeorology sectors. He started his presentation of the Belg season over Afar he clearly shows the moisture status and comfortability index over spatially and selected stations, respectively. From his summary he made some points as follows:

- The observed moisture status of the region was dominated by y and very y except in the 3rd dekade of March and April in this Belg season of 2022.
- Total crops water requirement (WRSI) in most parts of the region showed poor performance and the observed poor NDVI and rangeland WRSI dominated most parts of the region. This leads to negative contribution for Belg and long cycle crops in terms of water requirement and availability of pasture and inking water for pastoral and agro-pastoral areas of the region.
- Uncomfortable weather condition is increased month to month in this season. Spatially April month all people practised uncomfortable (discomfort) weather condition all day in the selected stations.
- During February, March and April the condition is not favorable for the outbreak of malaria in the selected stations.

Dereja Baye gave an introduction about the Kiremt 2022 in the region. Based on analog years 1985, 1989 and 2000 he shows a spatial analysis for WRSI and aridity index. He concluded his presentation by stating that:

- The analyzed moisture status of selected analog years show good performance for Kiremt agricultural activities. Spatially zones 5, 4, 3 and from zone 1, Chifra and Mille, from zone 2, Aba'ala and Megale will be expected to have good moisture status. Other parts of the region were expected to get less saturated to y soil moisture.
- Total crops water requirement (WRSI) in most analog years showed good to very good performance over most parts of Kiremt growing areas. This was positive contribution for pasture and inking water over pastoral and agro-pastoral areas of the region.
- The expected anticipated to receive dominantly normal to above normal rainfall over much of the region enable get good moisture which would have advantage of general agricultural activities and planting of long

cycle crops in this season.

- During July to August in a given analog year Awash basin dominated by sub-humid to wet aridity index, which should have positive impact for surface and ground water. But more of the Afar Danakil is dominated by semi-arid to arid.

On session III SNNPR RMSC RCOF

Tizazu Musa from the director of SNNPR regional meteorological service introduced Kefiyalew Ayele to present the Belg 2022 climate performance and the Kiremt 2022 climate outlook. Kefiyalew Ayele give an introduction about the Belg 2022 climatology and assessment over the regions. He explained that during this season there was late onset and warmer temperature form climatology was observed from the region. He finally concludes unevenly spatial and temporal distributed, late with frequent y spell, normal to below normal rainfall was observed over most of Belg beneficiary parts of SNNPR and Sidama.

Kefiyalew Ayele explained about the Kiremt 2022 climate outlooks, and clearly show the Kiremt season (June to September) over SNNPR and show the atmospheric systems that are governing the climate of Kiremt season.

He concludes his presentation by showing tercile probability for Kiremt 2022 over SNNPR and gave detail explanation as follows:

- Normal to above normal rainfall is expected across most of the Southwestern Ethiopia region, central and northern parts of SNNPR and western parts of Sidama region. Below normal rainfall is anticipated over southeastern parts of SNNPR and Sidama regions.
- Normal onset will be expected over Kiremt rain benefiting areas of regions and normal cessation of the rainy season are expected. In general, the seasonal rain anticipated to be normal to above normal over most parts of Kiremt rain beneficiary areas of the regions.

Tizazu Musa introduced Deginet Gichamo to present the Belg assessment of 2022 and the impacts outlook for Kiremt 2022. He started to introduce Belg climatology and performance moisture status and vegetation greenness (NDVI) from dekadal to monthly with map. He finally concludes the past Belg seasonal with agrometeorology, biometeorology and hy ometeorology as follows:

- Both in February and March most places of SNNPR and Sidama regions experienced y to moderately y soil moisture were observed but in the Southwestern region of Ethiopia moist to humid soil moisture were observed. It was favorable condition for general agricultural activities for Meher land preparation activities in northern SNNP, Sidama and Southwestern regions. But negative impacts for Belg agricultural activity in the southern parts (Gamo, Gofa, South Omo), Konso, Gedio zones and some parts of Sidama region get satisfying of inking water over pastoral and agro-pastoral areas.
- Whereas February 1st, March 1st and April 1st dekade was very y in most parts of SNNPR and Sidama regions.
- In April most parts of Southwestern region and South Omo zone in SNNPR face high malaria outbreak.
- Aridity index in March and April months in western parts of the regions humid to wet and northern central, southern, eastern parts of SNNPR and Sidama regions semi-arid to humid.

Deginet Gichamo introduced the impact of Kiremt climatology over SNNPR in applied meteorology points of view. He concluded his presentation by stating the following summary points, as having both negative and positive impacts.

Based on the given analogy year as follow: Normal rainfall is anticipated across the northern, western, eastern, central and Southwestern areas of the SNNPR, Sidama and South. And normal to below normal rainfall is expected across the south, Southeastern parts of SNNPR and eastern parts of Sidama region.

Positive impacts—

- Good conditions for land preparations for Meher agricultural activities.
- Enough moisture to sustain agricultural production, including the long cycle crops in Southwest and most parts of SNNPR.
- Positive for seedling and tree planting.
- The late cessation may favor toward satisfying the water need at the end of the season.

Negative impacts—

- Negatively affecting water and pasture availability and crop performance of agro-pastoral areas.
- Early depletion of water and pasture resources may lead to scarcity of milk and other livestock products, negatively impacting food security and nutrition.
- Flood occurrence, landslide, water logging and soil erosion in line with heavy rainfall will be expected.
- Possibility of weed infestation, crop pest and disease.

On session III Somali and neighboring region meteorological service center RCOF

Zerihun Hailemariam from the director of Somali and adjacent regional meteorological service introduced Gedamu Getnet to present the Belg 2022 climate performance and Kiremt 2022 climate outlook. Gedamu started to explain the Belg climatology season with map. During the Belg 2022 there were three stations that had heavy fall. He finally summarized as follows:

- Most parts of northern Somali region (Sity, Fafen, eastern Harerghe zones), Hareri region, and Dire Dawa area have gotten below rainfall performance.
- Southern and central parts of Somali region (northern part of Shebelle, southwestern Jarer, central Afder and Nogob zones) have gotten normal rainfall performance.
- Northwestern Shebelle, northern and central part of Afder and southeastern part of Liben zones have gotten above normal rainfall performance.
- Late onset of Belg season over Somali region, Dire Dawa and Hareri regions.
- Day time maximum temperature above the mean.
- Heavy rainfall recorded on April at Dire Dawa and Hareri.

In his presentation, Gedamu Getnet discussed about Kiremt 2022 seasonal forecast for Somali and neighboring regions by showing a tercile probability map. In general, he explained the upcoming Kiremt 2022 will be near normal condition was expected throughout the Kiremt rainfall benefiting areas. He also gave a recommendation for heavy fall during August and September may cause of flood and landslide across some places of flood prone areas.

Zerihun Hailemariam introduced Asmerom Birhane to present the impact of Belg 2022 assessments and Kiremt 2022 forecast. Asmerom explains seasonal classification for the region in two-way one form EMI seasonal classification and the local seasonal classification. In the presentation during Belg 2022 he shows

the moisture status water requirement index in map and graphs in detail. Asmerom summarized a Belg season 2022 as follows:

- The moisture status for the month of October got adequate moisture was observed over eastern Harerghe, Dire Dawa and northern parts of Somali regions.
- In the southern parts of Somali region, the second rainy season got below normal rainfall performance that affect the availability of pasture and inking water.

6. Discussion: Questions, answers and feedbacks

Fetene Teshome reiterated the nationally issued climate outlook for Kiremt 2022. He stated that the likelihood of normal to above normal rainfall will be expected over much of the Kiremt benefiting areas. The upcoming season rainfall will have a positive impact on critical socioeconomic sectors. He also informed the participants that the NCOF coincides with GHACOF June–September climate forecast.

He talked about the Kiremt climate outlook presented by each RMSCs. It was prepared by downscaling the country level issued forecast. And as it showed in the presentations normal to above normal rainfall conditions will likely prevail over most Kiremt rainfall benefiting areas of the regional states. He urges all the participants that precaution measures need to be considered over flood prone areas.

Finally, he stressfully told the attendees that they should have to consider the issued forecast and use as an input to their upcoming Kiremt activities.

Question 1: Do EMI has a plan to open offices at the Southwest of Ethiopia and Sidama regional states?

Can you provide us with Kiremt 2022 forecast for Sidama?

Can you establish a case team at SNNPR RMSC which will oversee providing climate information for Sidama regional state?

Answer: Regarding the issue of structure, as weather and climate has no boundary; any country can't stand alone and ad ess the issue of climate. WMO member countries share data and information and working collaboratively both at a global and regional level. So, EMI has been following the same principle and currently we don't have any plan to open offices at Sidama and Southwest regions but we can consider if it deems necessary. Our office at Hawassa is responsible enough to serve the three regions.

Question 2: It seems AICCRA project focused on EMI, what about other sectors?

Answer: AICCRA project has many components. I presented only the activities related with EMI.

Supplementary: The recently endorsed NFCS-E has capacity building component for both federal and regional key socioeconomic sectors. Soon there will be NFCS-E awareness creation at regional level.

Question 3: The likelihood of prolonged y spell occurrence is not common during normal to above normal rainfall conditions but s Chali presentation indicate there will be y spell on the coming season?

Answer: y spell will likely occur for only few days during the onset and cessation as the systems are not established well and weakness, respectively.

Question 4: I am not clear with decision support tool stated on AICCRA presentation?

Answer: The decision support tool was designed for agriculture and it is at pilot stage.

Supplementary: EMI already developed a mobile based app that use for data exchange and will plan to have a mobile base weather forecasting app soon.

Question 5: There has been a public request on updating the current three season classification. Can the research component of AICCRA include this issue?

Answer: We will incorporate the issue and will try to study season classification.

Annex I: Workshop program

Regional climate outlook forum for Kiremt 2022, held on 20 May 2022, at Adama, Haile Resort Hotel, Ethiopia

Session one: Opening of the forum			
Time	Program	Responsible	Facilitator
0830 – 0900	Registration	Organizers	Asaminew Teshome (PhD) Rapporteurs Abate G. Zekarias A.
0900–0910	Keynote speech	Dawit Solomon, AICCRA	
0910–0930	Opening speech	Fetene Teshome, Director General of EMI	
Session two: Climate assessment of Belg 2022 and RCOF for Kiremt 2022			
0930–0950	Contribution of AICCRA project for enhancing climate services at EMI	Teferi Demissie, Climate scientist at NORCE	
0950–1000	Assessing and evaluating Belg 2022 rainfall performance over Ethiopia	Tamiru Kebede	
1000–1010	National climate outlook for Kiremt 2022 in Ethiopia	Chali Debele	
1010–1125	Tea/coffee break	Hotel	
Session three:	RCOF presentations		
1125–1230	Presentations from Oromia RMSC's region		Henock Hailu Rapporteurs Abate G. Zekarias A.
1230–1300	Lunch		
1300–1440	Presentations from Amhara RMSC's region		
1440–1500	Presentation from Gambela RMSC		
1500–1520	Presentation from Benishangul Gumuz RMSC		
1520–1540	Presentation from Afar RMSC		
1540–1600	Presentation from Sidama, SNNPR and Southwestern RMSC		
1600–1620	Presentation from Somali and adjacent RMSC		
1620–1730	General discussion and adjourn	Fetene Teshome, Director General of EMI	

Annex II: Photo collection

AICCRA
Accelerating Impacts of CGIAR Climate Research for Africa

About AICCRA

Accelerating Impacts of CGIAR Climate Research for Africa (AICCRA) is a project that helps deliver a climate-smart African future driven by science and innovation in agriculture.

It is led by the Alliance of Bioversity International and CIAT and supported by a grant from the International Development Association (IDA) of the World Bank.

Discover more at aiccra.cgiar.org

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