Eastern Africa Seasonal Monitor June-September 2022 Seasonal Progress & October-December Outlook

Research, Analysis and Monitoring (RAM) Unit World Food Programme, Regional Bureau Nairobi

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HIGHLIGHTS

- Dry and hot weather conditions persisted over the June-August period worsening the impacts of drought in Somalia, Kenya and southern Ethiopia.
- The exceptionally long drought, amplified by warmer-than-normal temperatures, has devastated livelihoods, debilitated livestock herds, compromised crop production and vegetation regeneration, heightened water scarcity, lowered household incomes, and increased human displacement especially in Somalia.
- In equatorial areas of the region, the first season crop harvests are generally below-average/poor and delayed following the depressed March-May rains that delayed crop planting and development. This has prolonged the lean season period in some areas while the harvests are not enough to meet household consumption needstill the next harvests.
- Significant vegetation deficits and water shortages continue to impact on livestock production in drought affected areas, increasing
 livestock migration or longer-than-usual trekking distances in search of water and pastures. The deteriorating livestock body condition has
 significantly impacted on livestock production and productivity, and reduced household incomes from livestock sales thereby driving huge
 consumption gaps and malnutrition among children.
- Over 9.2 million livestock deaths have occurred in the drought affected areas of Ethiopia, Kenya and Somalia, eroding the assets depended upon by communities for livelihoods.
- The combined effect of drought and other shocks has worsened the food insecurity and malnutrition in drought affected areas, and increased the risk of famine in parts of Somalia. An estimated 18 million people are severely food insecure (IPC 3+) with likelihood to increase over the Oct-Dec period as food security deteriorates and drought conditions intensify and spread to Karamoja and northern Uganda.

HIGHLIGHTS (conti..)

- The on-going June-September rains in **northern areas of the region are normal to wetter-than-normal in many areas** allowing for crop production, regeneration of pastures and vegetation, and replenishment of water resources.
- This is in exception of central South Sudan, and parts of Ethiopia (SNNPR, central, southern Afar, and eastern Oromia) that benefit from both Belg and Meher seasonal rains where rains have so far been below-average. The depressed rains in Ethiopia is of concern as it follows a poor Belg season that affected crop and livestock production, and increased food and nutrition insecurity.
- The wetter-than-normal rains have resulted in flooding in Sudan, South Sudan, Eritrea, Djibouti, several areas of Ethiopia, southwest and eastern Uganda affecting populations, properties, infrastructure, and social facilities. Over 286,000 people are affected in Sudan. In addition, the floods have hindered agricultural activities or damaged growing crops, which is likely to influence the seasonal harvests and food availability in coming months.
- A fifth consecutive poor season looms in eastern Horn of Africa over the Oct-Dec period according to seasonal weather forecasts. This will
 aggravate the prevailing drought conditions, tighten food production among households that depend on the Oct-Dec rains for main cereal
 production, prolonging the period of food inadequacy until the next harvests in mid-2023. This will push more people into an alarming/severe
 food and nutrition insecurity (including risk of famine in parts of Somalia), and negative livelihood coping situation.
- There is need for stakeholders in the various sectors to sustain/upscale humanitarian responses, enhance anticipatory actions such as forecast based financing (FbF), and strengthen resilience building to cushion the already affected populations from further impacts of drought.

Eastern Africa: June-August 2022 Rainfall Performance



Rainfall in the three months ending August 2022: Left, as amounts in mm, Right, as a percent of the average (blues for wetter than average conditions, browns for drier than average conditions).

The June-September rainfall season benefits Sudan, South Sudan, Ethiopia (except southern and southeast), Djibouti, and Eritrea. The period also marks a continuation of the Feb-Aug rains in western Kenya and April-November rains in northern and Karamoja, Uganda.

Between June and August, most of western and northern Ethiopia, South Sudan, southern areas of Sudan, and parts of western Kenya received over 400mm of rain (Map on left). The pastoral and agropastoral areas in Kenya, southern and southeast Ethiopia, and Somalia remained nearly dry except along the Kenyan and pockets of southern Somalia coastal areas. The dry conditions prolonged the drought conditions that have been experienced since late 2020. In comparison to longterm average, the three (3) months cumulative rains were normal or wetter-than-normal in most of the receiving areas in the north of the region except in southwest Ethiopia, central South Sudan, and northern and northeast Uganda (Map on the right).

The normal to wetter-than-normal conditions signals the occurrence of favourable moisture conditions for crops and pastures development, and water replenishment. Nevertheless, in low-lying areas, it resulted in riverline/flash flooding in parts of the region whose details are provided in later slides.

Eastern Africa: Rainfall Distribution Over June-August Period



Monthly rainfall anomaly for June, July and August 2022; as a percent of the average (blues for wetter than average conditions, browns for drier than average conditions).

- Rainfall distribution varied across space and months in the receiving areas with rainfall deficits in northern and northeast Uganda, western Kenya, South Sudan, southwest Ethiopia, eastern Eritrea, and Sudan (western and south Kordofan states) in June.
- Although the situation improved in July over South Sudan and Sudan, it remained poor over Uganda, western Kenya and southwest Ethiopia. In August, the rains declined in western Ethiopia and parts of Sudan.
- Insufficient rains and accompanied dry spells in the growing areas of northern Uganda, western Kenya, and southwest Ethiopia led to wilting of planted crops, which could greatly impact on the seasonal harvests for a consecutive season.
- In contrast, most receiving areas of Sudan received enhanced rains since June leading to localised floods as from July in South Kordofan, White Nile, Al Jazirah and Kassala states with impacts on planted crops, infrastructure, and people. Given that the rains and flooding peak between August and September, more areas may get flooded in coming weeks.
- Hence, monitoring the situation as the end of season approaches its end will further inform about the situation.

Eastern Africa: October– December 2022 Climate Outlook











Rainfall forecast for the Oct-Dec 2022 season by ICPAC (upper left), IRI (Upper centre), NMME (upper right), ECMWF (lower left) and UK Met Office (Lower right);

NMME: https://www.cpc.ncep.noaa.gov/products/international/nmme/nmme.shtml; IRI: https://iri.columbia.edu/our-expertise/climate/forecasts/seasonal-climate-forecasts/; ICPAC: https://www.icpac.net/seasonal-forecast/; C3S: https://climate.copernicus.eu/charts/c3s_seasonal/

Eastern Africa: Oct – Dec 2022 Climate Outlook (contl..)

- Global (NMME, IRI, UK Met Office, and ECMWF) and regional (ICPAC) seasonal rainfall forecasts indicate high probabilities that the October-December 2022 short rains season could fail. This will lead to an unprecedented and catastrophic situation owing to cumulative effects of 5 failed seasons.
- The regional forecast by ICPAC indicate higher probabilities of drier than normal conditions over the coastal areas of Sudan and in most equatorial areas of the region particularly over eastern Kenya and southern parts of Somalia. Wetter than normal conditions are only expected over central to eastern South Sudan, and in parts of central, western and northeastern Ethiopia.
- The seasonal rains will have a delayed onset over eastern Kenya, southeastern Ethiopia, southern Somalia and Tanzania but may be on time in areas undergoing June-September rains, (western Kenya, Uganda, south Sudan, Southwestern Ethiopia, and northern Somalia).
- The forecast show that areas with depressed rains will be extensive including Uganda, Rwanda, Burundi, and Tanzania, a situation that is likely to have widespread negative implication on crop production, rangeland resources and supply in the region, thereby, impacting on food security.
- In addition, the depressed rains will be accompanied by warmer-than-normal temperatures over much of the region except in eastern areas of South Sudan and Sudan, western and northern Ethiopia, northern Uganda, and southwest Eritrea (Map on right).
- The combined moisture inadequacy and warmer temperatures will be detrimental to the vegetation (including crops), water resources through increased evapotranspiration and desiccation, and continue weakening the livestock condition and deaths. Areas of most concern are the ASALs of Kenya, Somalia and southern and southeast Ethiopia that currently undergoing severe drought conditions.
- A 5th consecutive poor season therefore implies significant deterioration of the current drought situation, and households that rely on Oct-Dec rains to produce food will have to wait till mid-2023 for the next harvest. This will worsen the already worrisome food insecurity situation.



Temperature probabilities across the region over the October-December season (Source: ICPAC)

Eastern Africa: Soil Moisture and Water Resources



Soil moisture condition in August 2022; bluish for above-average (saturated) and orange to reddish for below-average (deficits)

Water resources

- Waterpoints in the north of the region are improving due to received rains but most of those in drought affected areas in Kenya, Somalia and Ethiopia have dried up or declined in quality (Map on lower right) leading to severe water shortage for human, livestock and wildlife consumption.
- UNICEF estimates that 16.2 million people in drought affected areas cannot access adequate water for drinking, cooking and cleaning, which has increased chances of water-borne diseases.
- Further deterioration is expected in September due to usage, and hot and dry weather. The likelihood of depressed rains over Oct-Dec rainfall season further minimises the chance of adequate water replenishment. Hence, water scarcity will continue in early 2023.

Soil moisture

- In August, the soil moisture in most of Sudan, western and eastern south Sudan, Eritrea, Djibouti, western and northern Ethiopia was sufficient for crop development and regeneration of pastures except in areas with over-saturated soils that led to flooding/waterlogging with negative impacts on crops, properties and infrastructure (Map on left).
- Drier than normal soils in northern Uganda, central and southwest Ethiopia, and central South Sudan posed challenge to growing crops.
- In Rwanda, Burundi and northern Tanzania, the adequate soil moisture may support the start of cropping season in September. However, the drier-than-normal soils in drought affected areas of south-central Somalia, eastern and coastal Kenya will continue affecting the growth of vegetation and availability of surface water for livestock and humans.



Status of water points by 10th Sept 2022; Green for good and orange to reddish for alert to nearly-dry water points (Source: USGS/USAID/Fews Net)

Eastern Africa: Crop Production



A synthesis of crops condition by 28th Aug 2022, (GeoGLAM)

- By end of August, the status of agricultural crops in the region was mixed due to the influence of climate, socio-economic challenges and effects of conflicts/insecurity. Crop development of main seasonal crops is taking place in the northern unimodal areas of Sudan, Meher areas of Ethiopia, Eritrea, and northern South Sudan.
- In Sudan, the climatic conditions are suitable for crops development to be harvested from November. However, agricultural activities are also influenced by increased fuel prices, cost of inputs due to inflation and currency devaluation as well as access to credit for mechanised farming. Floods have also occurred in many areas impacting on growing crops - parts of Gedaref, Central Darfur, South Darfur, White Nile, Kassala, River Nile, West Darfur and to some extent in West Kordofan, South Kordofan, North Kordofan, East Darfur Sennar, Al Jazirah, North Darfur and Khartoum.
- In southern areas of South Sudan, first season crops are harvested or near completion while in unimodal areas they are at different stages of growth depending on planting time and kind of crops. In parts of greater Upper Nile and greater Bahr el Ghazal regions, late planting occurred due to delayed start of the rains and thereafter, croplands in low-lying areas were affected by flooding following heavy rains in July-August. This will impact on realised harvests.

In Ethiopia, the Meher season (Long Rains) crops are in vegetative to reproductive stage for harvest from September. Conditions are mixed with normal to wetter than normal conditions in most of north, west and northeast while dry conditions have impacted on crops in southwest. The rains in August provided some relief from severe moisture stress in central areas allowing crops to recover. In the northern areas, crop production is also subject to socioeconomic effects of conflict/insecurity. This is in addition to effect of localised flooding in parts of Tigray, Amhara, Afar, Gambella and Oromia.

Elsewhere in the region, crop harvesting had taken place (or near completion) in Burundi, Rwanda, bimodal areas of Kenya, Uganda and Somalia. The realised harvests vary significantly depending on the climatic performance and other factors during the growing season. Harvests are poor/below-average in marginal areas of Kenya, Somalia, Belg areas of Ethiopia, and northern Uganda (including Karamoja) due to severe rainfall deficits, hot temperatures, and effects of conflict in parts of Ethiopia. Land preparation for planting of the short rains crops are underway or expected to start in September in Burundi, Rwanda, bimodal areas of Uganda and Kenya. Favourable crop development continues in western Kenya for harvesting starting in September.

Eastern Africa: Vegetation and Livestock Conditions



NDVI in late (21-31) August 2022 a percent of average (greens for above average, browns for below average)

Vegetation

- The vegetation condition is normal to better-than-normal in most of the northern areas due to ongoing seasonal rains supporting vegetation regeneration and crops establishment. The poor condition in localised areas of eastern Sudan, and along the sudd wetlands in South Sudan could be associated with impact of flooding/waterlogging.
- In the pastoral and agropastoral areas of Kenya, Somalia, southern and southeast Ethiopia, the vegetation remains poor due to the ongoing drought limiting the availability of pastures and browse for livestock.
- In the bimodal growing areas of Uganda, crop harvesting has taken place and the second season cropping is yet to start. The rains have also been inadequate in parts of the cattle corridor districts negatively impacting on pastures development.

Livestock

- The favourable vegetation in northern areas implies availability of grazing resources and improved livestock body condition despite localised incidences of livestock diseases and pests due to increased wetness.
- In the drought affected pastoral and agropastoral areas of Kenya, Somalia, southern and southeast Ethiopia, vegetation deficits and water shortage continue to affect the livestock body condition, production and productivity, access to livestock consumption products (milk), and lowering livestock market prices and household incomes from livestock.
- Because of the poor grazing conditions, widespread livestock deaths have occurred across the three countries leading to loss of livelihood assets depended upon by households. At least 9.2 million livestock have been lost, including 3.8 million in southern Ethiopia (Fews Net), 2.4 million in Kenya (NDMA), and over 3 million in Somalia (IPC).

Specific Country Details

Sudan Focus

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NDV



- Between June and August, Sudan experienced normal to wetter-than-normal rains (Map on Top) similar to the same period in 2021.
- Despite the favourable climatic condition, the seasonal agricultural activities have been affected by increased cost of fuel and inputs due to inflation and currency devaluation, and limited access to credit among mechanised farmers.
- The seasonal rains have regenerated pastures and replenished water for livestock. By late August, only parts of eastern areas had pockets of poor vegetation due to effect of flooding (Map at the bottom). The vegetation has remained in good condition since January (see the vegetation profiles) following favourable rains in 2021.
- The wetter-than-normal conditions have resulted in flooding that have affected people, properties and agricultural fields in various parts of the country. As of 12th September 2022, 286,400 people had been affected mostly in Gedaref (58,935), Central Darfur (41,747), White Nile (34,357), South Darfur (30,677) and Kassala (25,890) states. The other affected states are Northern (18,046), River Nile (16,572), West Darfur (15,504), North Kordofan (13,185), Aj Jazirah (8,715), West Kordofan (6,030), South Kordofan (5,765), Sennar (5,379), and East Darfur (3,650), with more limited impact in Khartoum (1,296), and North Darfur (686) (OCHA).
- Over 2,150 heads of livestock, and over 12,100 feddans (about 5,100 hectares) of agricultural land have been affected (OCHA).
- The seasonal rains normally peak in August and September, and therefore more flooding and impacts are expected as water levels in Nile and Atbara rivers increase further beyond the flood risk levels.

Ethiopia Focus

Average — Rainfall — NDVI Average — NDVI

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NDV



average, browns for below average)

- The western and northern areas received normal to abovenormal rains (top Map) with localised floods in Afar, Tigray, Amhara, Gambella and Addis Ababa. This has supported vegetation (crops and pastures) development currently in normal to better-than-normal condition (bottom Map).
- In parts of SNNPR and eastern highlands of Oromia, depressed rains follows a very poor Feb-May Belg season that led to crop failure. Although rains in August provided some relief, insufficient moisture is likely to influence the Meher crop production. The vegetation has not recovered and is limiting availability of grazing resources. The combined effect of drought and reduced Meher crop production will further worsen the food security conditions in coming months.
- In southern and southeastern pastoral areas, drought continue to ravage following the 4th failed season during the Feb-May Belg period. Pastures and water are largely unavailable and livestock body conditions and production are poor and continue to deteriorate, affecting consumption, household income generation and increasing malnutrition. Many households have lost their livestock since the drought started over 3.8 million livestock deaths (FSNWG) - and are in destitute condition.
- Overall, the effects of drought in Ethiopia has pushed an increasing number of people (9.88 million) into an alarming lifethreatening situation of severely food insecurity and water scarcity.
- Rainfall forecasts point to a 5th poor season in the drought affected southern and southeastern pastoral areas over the October-December season. This will further complicate the situation by increasing hunger and livestock deaths into early 2023.

South Sudan Focus

— Average — Rainfall — NDVI Average — NDV

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average, browns for below average)

- The ongoing seasonal rains have varied across the country with normal to above-normal rains except in central areas of Lakes, Warrap, Unity, Jonglei and Eastern Equatoria states (Map on top).
- The vegetation has been in good condition (see profiles) and by late August, normal to better-than-normal vegetation is evident in most areas except in sudd wetlands due to flooding/waterlogging, and parts of southeast (Kapoeta) due to insufficient moisture. In some of these areas, access to the vegetation by livestock is hindered by stagnant waters.
- Crops are at varying stages of development depending on rainfall performance and the time they were planted. In Lakes, Unity, Warrap states, crop planting was delayed by insufficient rains while dry spells impacted the early stages of growth.
- Thereafter, in the low-lying areas of Lakes, Unity, Upper Nile, Northern Bahr el Ghazal states, crops at vegetative to flowering stage have been affected by flooding and waterlogging. In Jonglei state, by the start of the season in June, the flood waters from previous seasons had not receded particularly in Bor South, Twic East, and Duk and Ayod counties. This prevented households from undertaking crop planting.
- In addition to flooding, crop production has been challenged by socio-economic issues stemming from the effects of conflicts and macroeconomic challenges.
- Hence, crop production during the June-September season is expected to be worse than in 2021 thereby worsening the already dire food insecurity situation into early 2023.

Somalia Focus





- Four consecutive poor rainfall seasons since late 2020 have led to severe drought conditions that have ravaged many sectors and areas in southerncentral regions. Currently, the country is going through a hot and dry weather expected to ease in October when the Deyr rains start.
- About 4.3 million people are facing severely food insecure (IPC 3 +) and need urgent multi-sectoral assistance. The number could increase to 6.7 million over Oct-Dec period (IPC, Sept 2022) including 2.2 million in Emergency (IPC Phase 4) and at least 300,560 in Catastrophe (IPC Phase 5) particularly in Baidoa and Burhakaba districts in Bay region.
- **Over 1.8 million** children under 5-years are likely to be acutely malnourished between Aug 2022 and July 2023 and in need of treatment and prevention of acute malnutrition (FSNAU & Fews Net, Sept 2022).
- Over 1.2 million people have been displaced in 2022 majority (over 850,000) of them due to drought (UNHCR).
- The pastoral and agropastoral areas continue to face severe water shortage and significant vegetation deficits impacting on livestock condition, production and productivity, and deaths. Over 3 million heads of **livestock** have died since the drought began (FSNWG, Aug 2022).
- The Gu season crop production that accounts for 60 percent of total annual cereal output was grossly affected by drought. The 2022 Gu cereal production is estimated at 50 percent below-average, making it the 5th consecutive season with a reduced cereal production. It will have significant impact on household food stocks, market supply and commodity prices.
- The weather forecasts predict an unprecedented, 5th consecutive poor Oct-Dec 2022 rainfall season and increased chances of below-average rainfall in early 2023 in the eastern Horn of Africa. If this materialises, it will prolong the extreme drought conditions and its impacts well into 2023.
- Unless there is a significant scale-up of multi-sectoral assistance, a rapid deterioration of food insecurity, accelerated deaths and destitution, and increased human displacement is likely, particularly in worst affected areas.

Kenya Focus

— Average — Rainfall — NDVI Average — NDVI

NDM

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average, browns for below average)

Kenya has experienced four consecutive below-average seasons since 2020 impacting on crop production, vegetation, livestock and water resources. By August, the drought continued to worsen in 20 of the 23 ASAL counties (NDMA).

- As a result, **3.5 million** people are food insecure, and likely to increase to 4.4 million over October-December period. Malnutrition is dire with 884,464 under 5-years children and 115,725 pregnant and lactating women being acutely malnourished and in need of urgent treatment. GAM prevalence rates exceed 15 percent in seven counties and over 30 percent in three sub-counties in Marsabit and Turkana.
- The 2022 long-rains crop harvests in the marginal agricultural areas (eastern and coastal) were grossly below-average due to insufficient moisture and socioeconomic factors, which has reduced food availability (KFSSG, 2022).
- Pastoral and agropastoral areas are facing significant vegetation deficit (bottom map) and water scarcity that has affected the livestock sector through deteriorating livestock body condition, reduced productivity and declining livestock prices.
- About **2.4 million heads** of livestock have died since 2021 due to drought (NDMA, June 2022).
- A 5th unprecedented consecutive poor season is forecasted in the eastern areas during the October-December season, which is the main crop producing period in marginal areas. This implies another season of likely failed harvests that will further constrain food production and availability, prolong the prevailing extreme drought conditions and impacts into 2023.

Uganda Focus





- In 2021, the northern, southwest, central, and Karamoja areas experienced below-normal rains that impacted on food production. This was followed by a below-average March-May 2022 rains with periodic dry spells that resulted in reduced first season production.
- Food insecurity increased in Karamoja to 517, 850 over March-July and currently estimated at **315,000 people** between August and February 2023.
- The rainfall season in Karamoja and north started well in April but declined over June-July with prolonged dry spells that affected planted crops. The seasonal harvests are likely to be below-average and inadequate to meet household consumption needs for long.
- The seasonal rains intensified in August leading to localised flooding in eastern areas (Mbale, Kapchorwa, Bulambuli, Sironko, Bukedea, Butaleja) and in southwest (Bundibugyo, Kisoro) as well as landslides in Bududa.
- While Uganda has not experienced severe drought conditions as experienced in Kenya, Somalia and pastoral Ethiopia, poor vegetation and water scarcity are reported in cattle keeping areas of southwest, central, and northern since the beginning of the year (see the bottom map and vegetation profiles). This will continue affecting livestock body conditions and productivity.
- The situation could worsen towards the end of the year given the belowaverage rainfall forecast over Oct-Dec period, which will lower food production in bimodal areas and limit the regeneration of pastures and water resources in livestock keeping areas.
- Given that Uganda is a major food producer and exporter in the region, consecutive short-falls in production will not only impact on local food consumption needs but will also increase regional cereal requirement gaps.

FOR FURTHER INFORMATION:

Zacchaeus Ndirima Zaccheus.Ndirima@wfp.org

Siddharth Krishnaswamy Siddharth.Krishnaswamy@wfp.org



Vam food security analysis