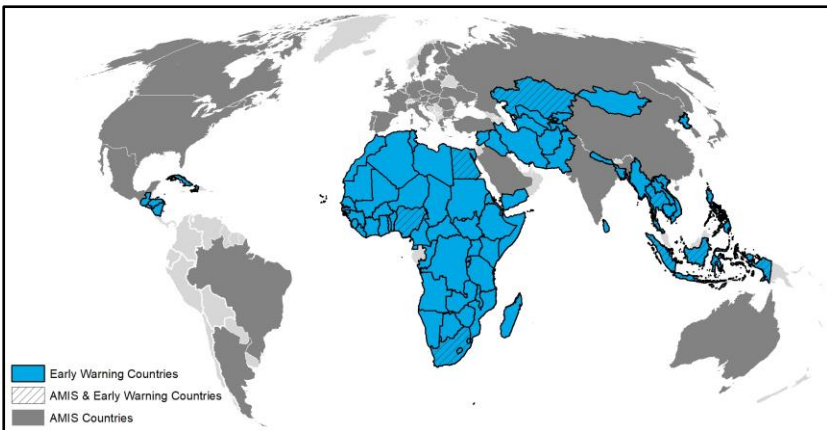


Crop Monitor

EARLY WARNING

Overview:

In **East Africa**, planting and development of main season cereals is underway in the north under mixed conditions due to ongoing socio-economic challenges, conflict, flooding, and areas of dryness. In the south, harvesting of main season cereals finalized under mixed conditions with below-average yields in many areas due to persistent seasonal dryness and significantly below-average final yields in marginal producing regions of Kenya. In **West Africa**, harvesting of main season maize is nearing completion in the south while planting and development of main season cereals continues in the north. Conditions are generally favourable due to above-average rainfall except in areas affected by flooding and in conflict-affected regions. In the **Middle East and North Africa**, winter wheat finalized last month under mixed conditions, and crops are now out of season across much of the region. In **Southern Africa**, winter wheat crops are in vegetative to reproductive stage under generally favourable conditions except in minor producing regions in South Africa due to dryness. In **Central and South Asia**, harvesting of winter wheat crops finalized under mixed conditions with below to well below-average yields in some areas, and conditions are also mixed for spring wheat crops due to persistent dryness in many areas. In northern **Southeast Asia**, wet-season rice continues to develop under favourable conditions with sufficient precipitation received. In Indonesia, conditions are favourable for the harvesting of early planted dry-season rice. In **Central America and the Caribbean**, harvesting of *Primera*/main season cereals is underway with concern in parts of Guatemala and Haiti due to persistent dryness as well as parts of Haiti impacted by the August earthquake and Tropical Depression Grace.



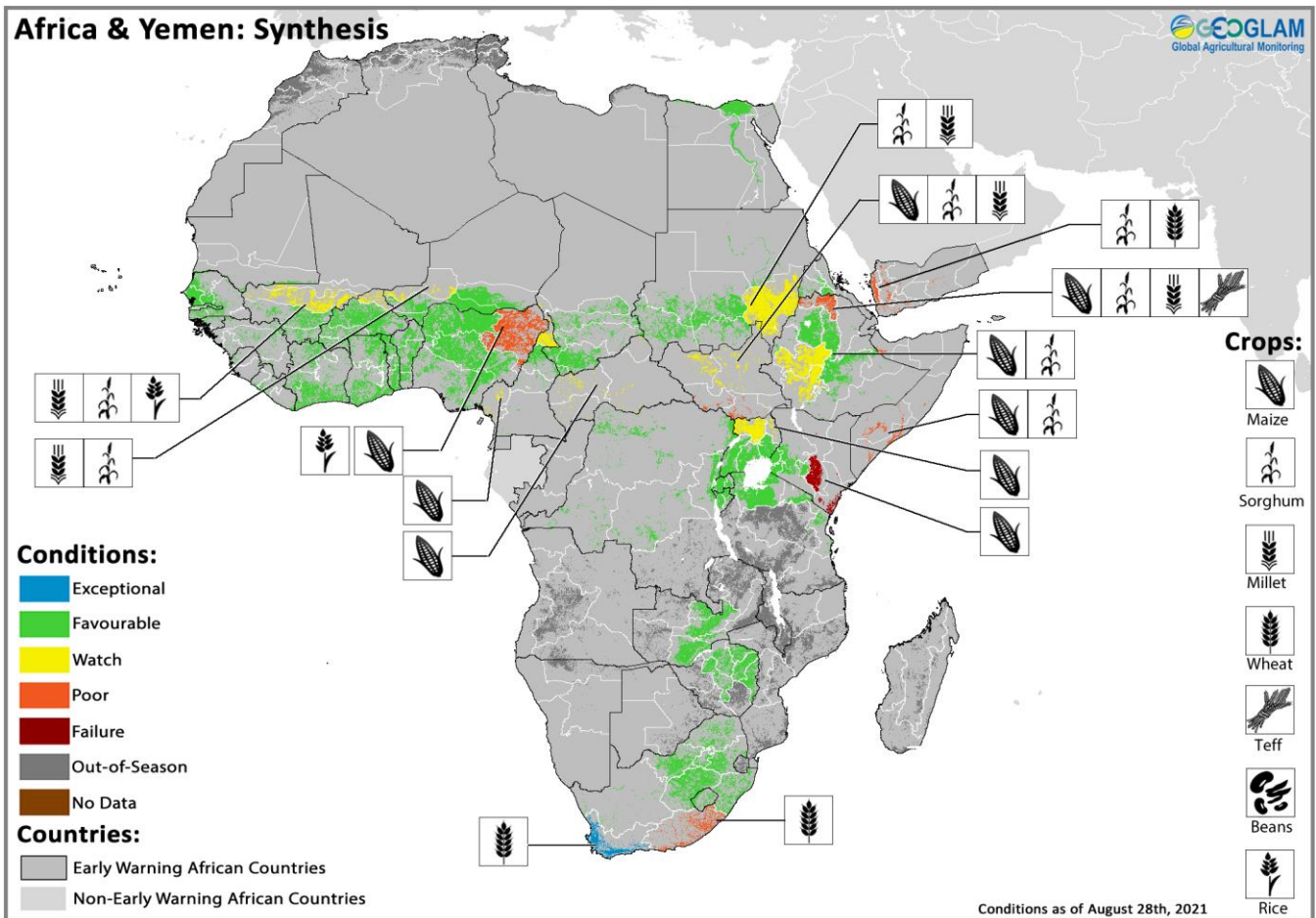
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GEOGLAM Crop Monitor for Early Warning

Crop Conditions at a Glance

based on best available information as of August 28th



Crop condition map synthesizing information for all Crop Monitor for Early Warning crops as of August 28th. Crop conditions over the main growing areas are based on a combination of inputs including remotely sensed data, ground observations, field reports, national, and regional experts. **Regions that are in other than favourable conditions are labeled on the map with a symbol representing the crop(s) affected.**

EAST AFRICA: In the north, conditions are mixed for main season cereals due to ongoing conflict and socio-economic challenges, impacts from flooding, and abnormal dryness in parts of central and southwestern Ethiopia. In the south, harvesting of main season cereals finalized with poor to failure conditions in parts of Kenya and Somalia due to persistent dryness which is forecast to continue for the upcoming October to December rainfall season (See Seasonal Forecast Alert Pg. 5 and Regional Outlook Pg. 8).

WEST AFRICA: Harvesting of main season maize is nearing completion in the south while planting and development of main season cereals is underway in the north, and overall conditions are favourable due to above-average rainfall, except in areas affected by flooding and in conflict-affected regions. Forecast above-average rainfall in September is likely to increase the risk of flooding across much of the region (See Regional Outlook Pg. 10).

MIDDLE EAST & NORTH AFRICA: Harvesting of winter wheat crops finalized last month under mixed conditions. In Egypt, conditions are favourable for the development of main season maize and summer-planted rice crops.

SOUTHERN AFRICA: Winter wheat crops continue to develop under generally favourable conditions except in minor

producing regions in South Africa where dry conditions are likely to negatively impact yields. Land preparation and planting of 2021/2022 main season cereals will begin in September.

CENTRAL & SOUTH ASIA: Harvesting of winter wheat crops finalized under mixed conditions with crop failure in parts of Afghanistan and below-average final yields in southern Kazakhstan, northern Kyrgyzstan, and parts of Turkmenistan and Uzbekistan due to persistent dryness throughout the season. Harvesting of spring wheat crops continues under mixed conditions due to ongoing dry conditions. Forecasts indicate another season of below-average precipitation is likely for the 2021/2022 season which may worsen irrigation deficits in many areas (See Seasonal Forecast Alert Pg. 13).

SOUTHEAST ASIA: In the north, wet-season rice is developing under favourable conditions with sufficient precipitation received despite localized drought and flood damage.

CENTRAL AMERICA & CARIBBEAN: In Central America, harvesting of *Primera* season maize and bean crops is underway under generally favourable conditions except in parts of Guatemala due to dry and hot conditions. In the Caribbean, harvesting of main season cereals is underway, and there is significant concern in Haiti due to persistent dryness and the impacts of the August earthquake and Tropical Depression Grace.

Global Climate Outlook: 30-day Forecast of Areas with Above or Below-Average Precipitation

The 30-day precipitation forecast indicates a likelihood of above-average rainfall across southern Canada, the eastern US, Mexico, Honduras, Nicaragua, Costa Rica, Panama, Colombia, Venezuela, northern Guyana, Ecuador, Peru, Bolivia, Paraguay, northeast and southern Brazil, southern Chile, the Gulf of Guinea, central Cameroon, southern Chad, southeastern South Sudan, northern Ethiopia, eastern South Africa, Germany, Czechia, Poland, Lithuania, southern Sweden, Slovenia, Croatia, Bosnia and Herzegovina, southern Belarus, western Ukraine, western Romania, parts of Russia, China, Democratic People's Republic of Korea, Republic of Korea, India, Nepal, southern Myanmar, Laos, Thailand, Cambodia, Viet Nam, the Philippines, Malaysia, Indonesia, Papua new Guinea, and northern New Zealand. There is also a likelihood of below-average rainfall in parts of Canada, the southeastern US, Cuba, Haiti, the Dominican Republic, parts of Venezuela, Chile, western Senegal, Angola, coastal Kenya, northeastern United Republic of Tanzania, the United Kingdom, Norway, Japan, Bangladesh, southeastern China, Taiwan, northern Myanmar, western Malaysia, and western Indonesia.

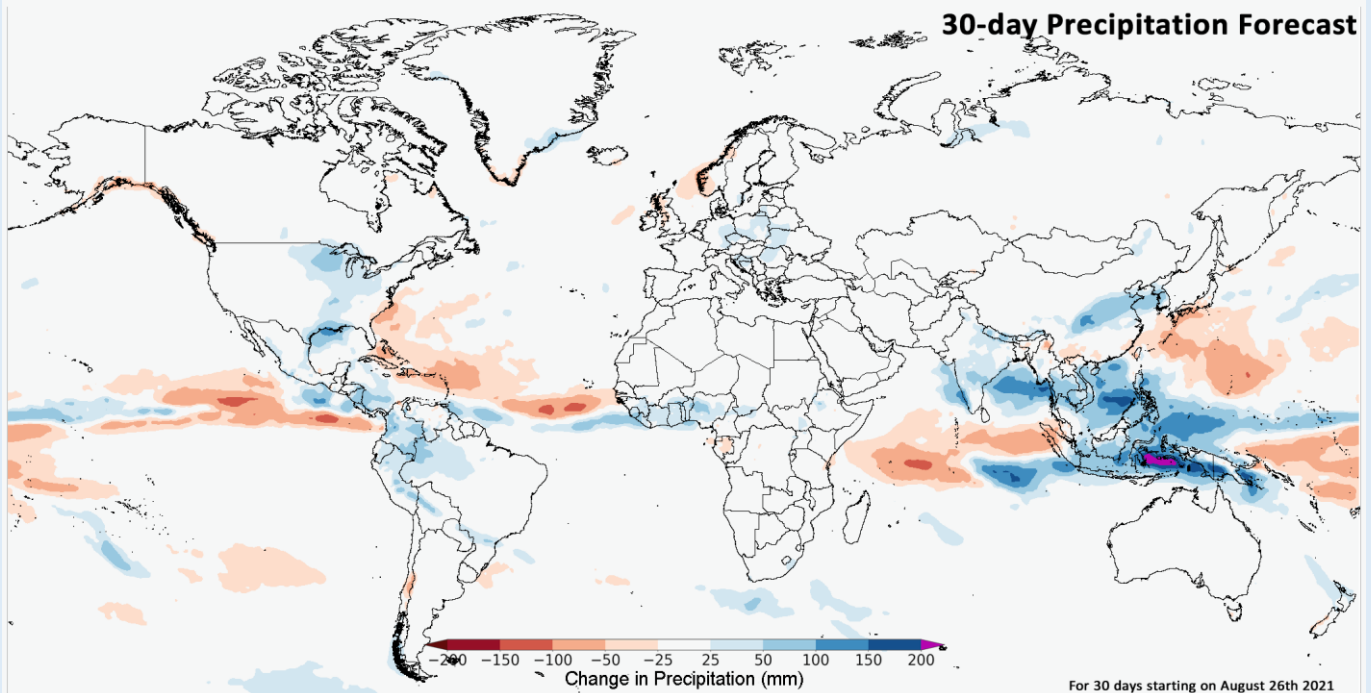


Figure 1. Forecast of areas with above or below-average precipitation over the next 30-days starting on August 26th, 2021. The image is the multimodel mean of precipitations anomaly from the Subseasonal Experiment ([SubX](#)) model forecasts for that day. The anomaly is based on the 1999 to 2016 model average. Skill assessments of SubX can be accessed [here](#).

Source: UCSB Climate Hazards Center

Climate Influences: La Nina Watch issued and negative IOD event is currently underway

Neutral El Niño-Southern Oscillation (ENSO) conditions are present and expected to continue into September. A La Niña event will potentially develop during the September-to-November season and last through early 2022 (67% chance for October to December; 69% to 55% chance for November to March). The IRI/CPC has issued a La Niña Watch.

La Niña conditions typically increase the chances of below-average precipitation in East Africa, Central Asia, southern South America, southern United States, northern Mexico, and eastern East Asia. La Niña conditions typically increase the chances of above-average precipitation in Southeast Asia, Australia, Southern Africa, and northern South America.

A negative Indian Ocean Dipole (IOD) event is underway. Negative IOD conditions are expected to continue into November, according to the Australia Bureau of Meteorology forecast (79% to 56% chance for September to November). Negative IOD conditions typically increase the chances of above-average rainfall in Southeast Asia and Australia and below-average rainfall in East Africa.

Source: UCSB Climate Hazards Center

Desert Locust Update: Continued above-average rainfall in Ethiopia and Djibouti may allow for another generation of breeding

As of early August, there is significant risk of impact to both crops and rangelands in **Ethiopia**, **Sudan**, and **Somalia** where swarms were recorded during the critical planting period of main season cereals. In August, wetter than average conditions over northern parts of the subregion as well as western **Kenya** and **Uganda** is likely to attract swarm migration due to favourable egg-laying conditions, including moist sandy soils and abundant vegetation. In particular, good rains that fell in northeastern **Ethiopia** and parts of southern **Djibouti** have made conditions ideal for breeding and egg-laying, which is expected to continue through September. The availability of green vegetation is likely to continue to be suitable in the north where above-average rainfall may continue into September. Heavy rainfall is expected over parts of southern and central **Sudan** and north and northwestern **Ethiopia** (See Regional Outlook Pg. 8). Additionally, forecast winds are likely to favour northeast and northwest locust movement, particularly from northern **Ethiopia** and **Eritrea** to **Eritrea**, **Djibouti**, **Yemen**, and **Saudi Arabia**. Limited control operations due to heavy rainfall and areas of active conflict throughout the subregion may increase locust numbers.

In **Ethiopia**, high rainfall amounts received in July and August poses a risk to main *Meher* season crops which are at early growing stage. As of mid-August, a few mature swarms were likely to be present with egg-laying in areas of Afar that received rainfall, and moist sandy soils in the northeast will provide suitable conditions for breeding in the next two months. As of late August, hatching and formation of small hopper bands is likely underway in the northeast. However, the security situation has hampered survey and control operations, and most areas affected can no longer be accessed. In **Somalia**, a few immature swarms persisted on the plateau in the northwest, and some swarms were spotted in the northeast. In **Yemen**, good rains were received in parts of the interior, and small-scale breeding is underway. Limited hopper bands are present on the southern coast. In **Sudan**, scattered adults are present in the interior which will result in small-scale breeding. Although locust numbers in the summer breeding areas of Sudan and Eritrea are very low, congregated breeding and mature and immature groups were present in River Nile State, and hopper bands and groups were present in some locations at the River Nile Valley.

Wetter than normal conditions are expected to continue through September in the summer breeding areas of northeastern **Ethiopia** and southern **Djibouti** but will likely dry afterwards with the increased likelihood of a prevailing La Niña event (See Seasonal Forecast Alert Pg. 5 and Regional Outlook Pg. 8). However, rainfall in eastern **Ethiopia** and northern **Somalia** may be sufficient to allow a generation of breeding from October through December.

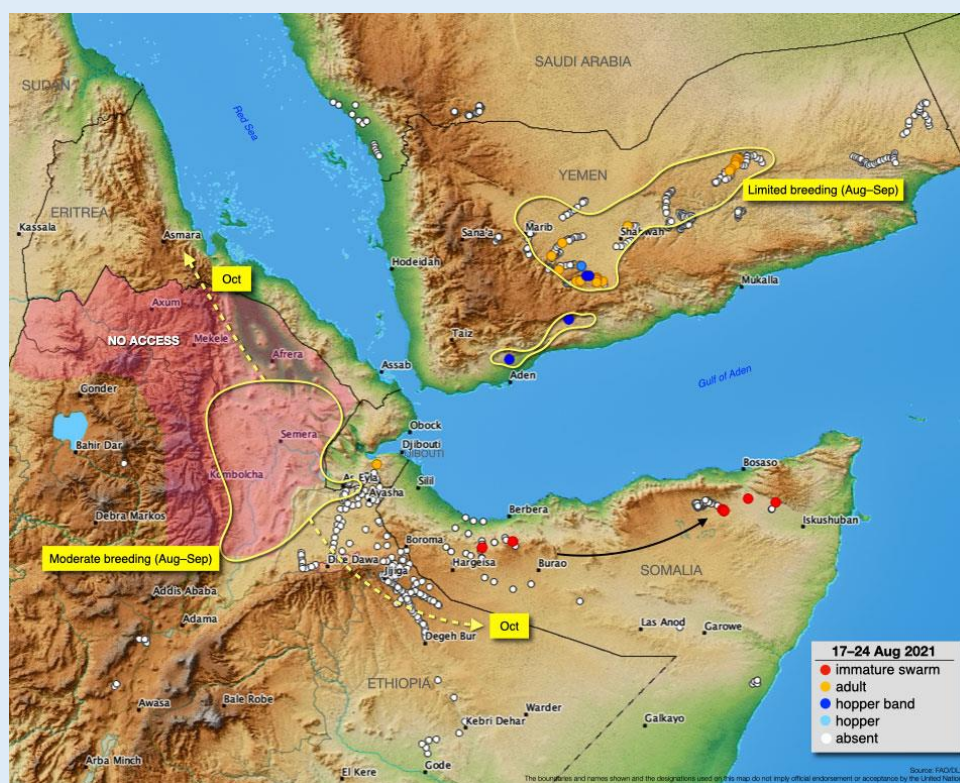


Figure 1. Desert Locust Situation and Forecast, August 17-24 2021. Source: FAO DLIS

Seasonal Forecast Alert: Increased likelihood for a third consecutive below-average rainfall season across eastern East Africa during OND 2021

After poor October-November-December (OND) 2020 and March-to-May (MAM) 2021 rainy seasons, pessimistic rainfall forecasts are indicating an alarming possibility for a third poor rainfall season in eastern East Africa during OND 2021. In areas of eastern and southern Ethiopia, eastern Kenya, and southern Somalia that were impacted by sequential dry seasons during 2020-2021 (See Crop Monitor for Early Warning [February 2021](#) and [July 2021](#) reports, Ethiopia 2021 [Belg Report](#)), multiple international and regional forecasting centers indicate that OND 2021 precipitation is likely to be below-normal once again. The WMO forecast from August (Figure 1- top left) identifies a 40-to-70% chance for below-normal OND 2021 rainfall in these areas and elsewhere. This forecast is more confident than the one issued in July. The GHACOF59 OND forecast (See Regional Outlook Pg. 8) and the NMME (Figure 1- top right) also predict most-likely below-normal rainfall in this region. In areas that strongly depend on OND rains, a poor OND 2021 outcome could mean a long wait before the next chance for a substantial harvest in early 2023.

Forecast OND 2021 sea surface temperatures in both the equatorial Pacific and equatorial Indian Ocean resemble patterns known to suppress rainfall in East Africa during OND. There are indications for coinciding La Niña and negative Indian Ocean Dipole (IOD) events. Very warm conditions are forecast for the equatorial western and eastern Pacific and Indian Oceans where substantial warming trends have occurred in recent decades. Extremely warm conditions in these areas can amplify both climate modes. Warm equatorial west Pacific OND temperature predictions have been a robust [feature](#) of recent strong gradient [La Niñas](#) and associated East Africa OND droughts. Sea surface temperature forecasts from dynamical climate models anticipate these conditions (Figure 1-middle). The IOD is currently in a negative state, according to the latest analysis from August 22nd. [Australia Bureau of Meteorology multimodel forecasts](#) indicate the IOD event will continue at least mid-way through the OND 2021 season. While ENSO conditions are currently neutral, CPC/IRI has issued a La Niña Watch due to indications from some models and observations that a La Niña event will develop from September to November and continue into early 2022 (67% chance for OND 2021).

A [statistical forecast](#) for OND 2021 precipitation for eastern East Africa, based on NMME-forecasts of OND sea surface temperatures (Figure 1-right), identifies a range of probable outcomes, from average to below-average precipitation, with the most-likely outcome being moderate drought conditions. The model predicts a standardized precipitation index (SPI) value around -1 for OND 2021, which is more severe than in OND 2020 (SPI ~ -0.8). The statistical framework draws on well-established relationships between regional precipitation and SST gradients related to the IOD, ENSO, and a La Niña-like Pacific SST gradient. The latter gradient incorporates western Pacific influences, which has amplified eastern East Africa drought impacts during many recent La Niña-like events. Many recent dry OND seasons have been associated with strong-gradient La Niñas, and prior FEWS NET [research](#) has shown that such events are associated with an elevated risk of sequential OND and MAM droughts.

Based on the increased chances for La Niña to develop during late 2021 there is a possibility for sequential poor OND 2021 and MAM 2022 seasons in East Africa. Forecast Pacific SST/ENSO conditions are similar to what transpired during OND 2020 and MAM 2021 and in previous sequential drought years such as 2016/17, 2010/11, 1998/99, and 1999/00. Emergent climate conditions will need to be closely monitored since the arrival of a strong-gradient La Niña, combined with poor 2020 and 2021 OND/MAM outcomes, could set the stage for three or even four consecutive poor seasons in eastern East Africa.

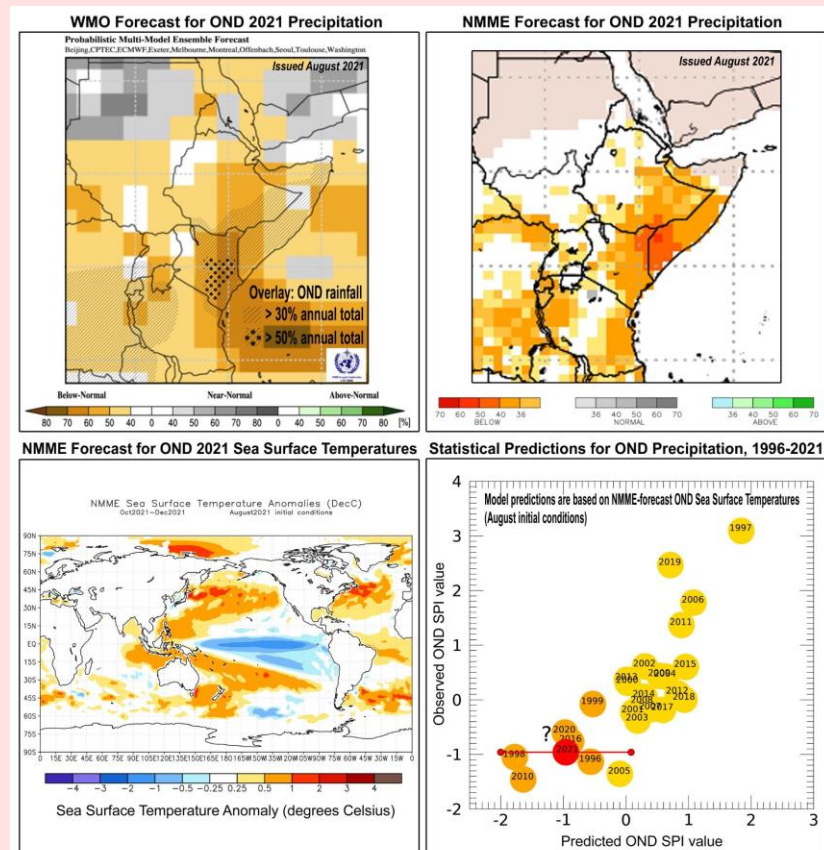
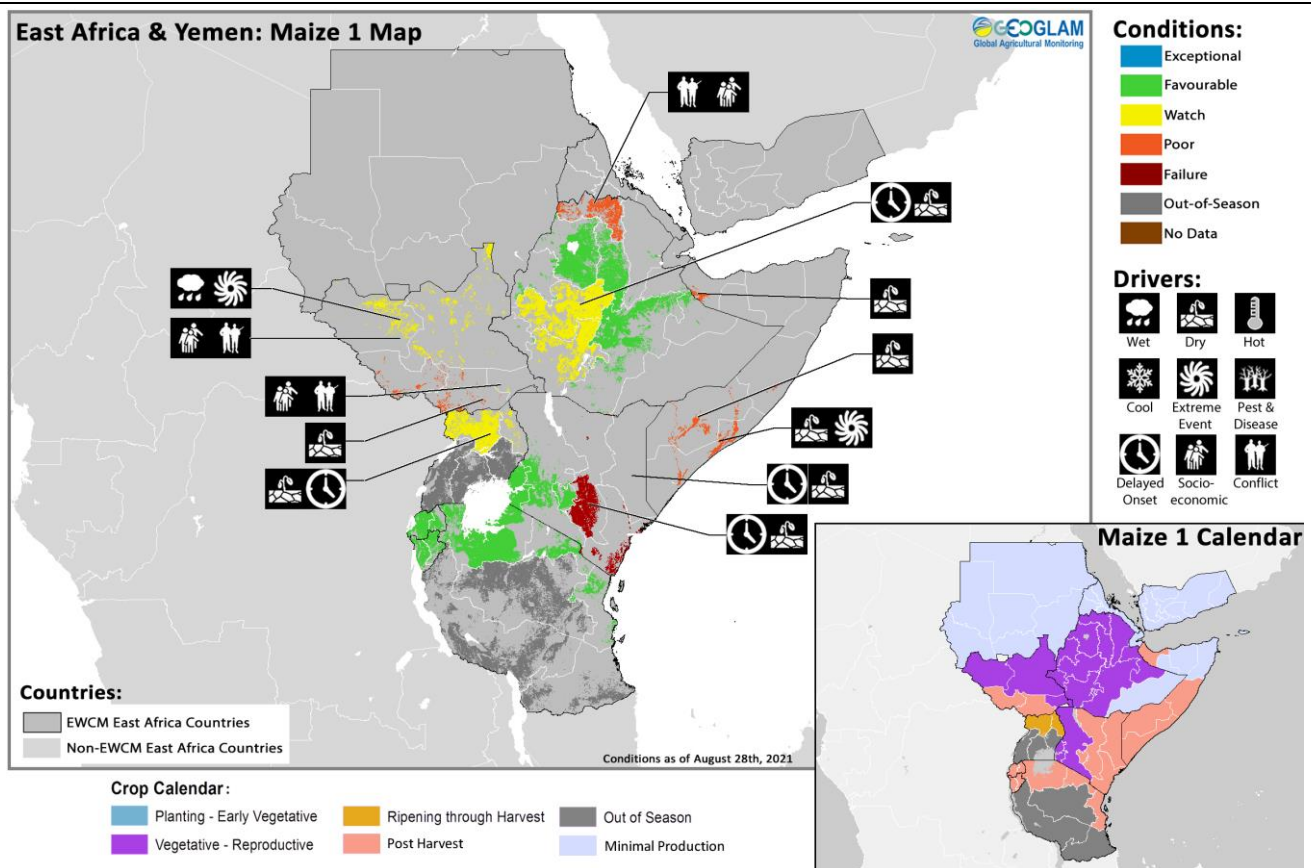


Figure 1. Top Left--WMO probabilistic forecast for October-November-December (OND) 2021 precipitation, based on models initialized in August. The overlay shows the importance of OND rainfall to annual totals. Base image from [WMO Lead Centre Long-Range Forecast Multi-Model Ensemble](#). Top right-- NMME probabilistic forecast for October-November-December (OND) 2021 precipitation. Bottom left-- NMME sea surface temperature anomaly forecast for OND 2021. NMME images are based on models initialized in August and are from [CPC NMME forecasts](#). Bottom right-- Scatterplot of predicted and observed Eastern East Africa OND Standardized Precipitation Index (SPI) values. The statistical model forecast uses August-initialized NMME forecasts for 1999 to 2021 OND sea surface temperatures for predictor regions. The overall R-squared of the regression is 0.47. The red circle shows the regression forecast for OND 2021; the red line shows the model's 80% confidence interval. Past seasons, or "analogs," that are similar to the current situation (orange circles) can be used for assessing historical impacts and comparison to updated forecasts. More details are provided in a Climate Hazards Center Blog (<http://blog.chc.ucsb.edu/?p=991>).

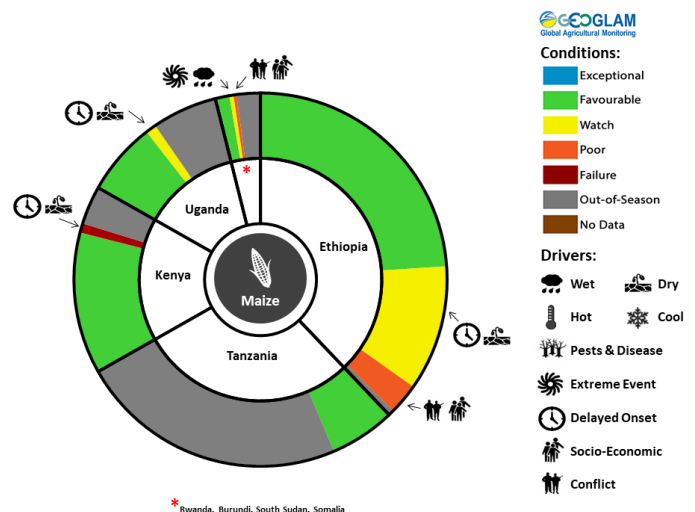
Source: UCSB Climate Hazards Center

East Africa & Yemen



Crop condition map synthesizing Maize 1 crop conditions as of August 28th. Crop conditions over the main growing areas are based on a combination of inputs including remotely sensed data, ground observations, field reports, national, and regional experts. **Conditions that are other than favourable are labeled on the map with their driver.**

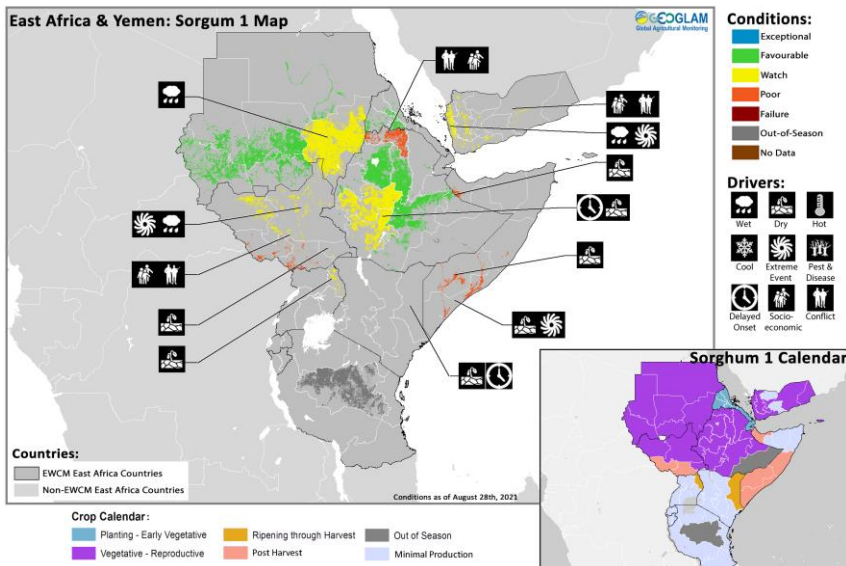
Across the north of the subregion, harvesting of main season cereals finalized in southwestern **South Sudan** while harvest will begin from September in **Ethiopia, Sudan, parts of South Sudan, Yemen, and Djibouti**. Overall conditions are mixed as crops in parts of **South Sudan, Tigray region in Ethiopia, and Yemen** are unlikely to recover from ongoing socio-economic challenges and conflict. Additionally, increased rainfall in August has led to flooding along waterways in parts of **Sudan, Ethiopia, and South Sudan**, and forecast continued rainfall is likely to increase the risk of flooding (See Regional Outlook Pg. 8). Recent storms and heavy rain in **Yemen** are also likely to impact crops. In **Ethiopia**, there is some concern for *Meher* season (Long Rains) cereal crops in the southwest and central areas due to rainfall deficits and abnormal dryness. Across the south of the subregion, harvesting of main season cereals finalized in **Burundi, Kenya, Rwanda, Somalia, Uganda, and the United Republic of Tanzania**. Final conditions are mixed as uneven distribution of rainfall has resulted in rainfall deficits, abnormal dryness, and well below-average yields in parts of western **Kenya**. Additionally, crops were unable to recover in **Somalia** due to persistent dryness and flash flooding in riverine areas. Elsewhere, final conditions are favourable. For the upcoming October to December rainfall season, drier than normal conditions are forecast in several regions, including the **United Republic of Tanzania, Burundi, Rwanda, Kenya, parts of Somalia, south and southeastern Ethiopia, and parts of Eritrea**. Previous deficits in combination with below-average rainfall forecasts could lead to moderate to severe drought conditions in parts of the subregion (See Seasonal Forecast Alert Pg. 5 and Regional Outlook Pg. 8).



For detailed description of the pie chart please see description box on Pg. 17.

Northern East Africa & Yemen

In **Ethiopia**, harvesting of *Belg* season (Short Rains) maize crops finalized last month with below-average yields due to dry conditions and conflict. *Meher* season (Long Rains) cereals are in vegetative to reproductive stage, and growing conditions are generally favourable as rainfall and soil moisture have been adequate for crop development except in localized areas affected by flooding. In early August, the Awash river broke its banks, flooding parts of Afar region and damaging farmland, and on August 17th, heavy rain



Crop condition map synthesizing Sorghum 1 conditions as of August 28th. Crop conditions over the main growing areas are based on a combination of inputs including remotely sensed data, ground observations, field reports, national, and regional experts. **Conditions that are other than favourable are labeled on the map with their driver.**

affected by heavy rains and flooding since the beginning of the June through September rainy season in 11 out of 18 states, including Aj Jazirah, Gedaref, Khartoum, North Kordofan, Northern, River Nile, Sennar, South Darfur, South Kordofan, West Darfur, and White Nile. An unconfirmed number of public infrastructures and farmland have been damaged or destroyed. Additionally, the removal of fuel subsidies has impacted mechanized farming activities and may limit production. In **South Sudan**, harvesting of first season maize and sorghum crops finalized in the south-centre and southwest with below-average yields due to ongoing socio-economic challenges and conflict. In the north and southeast, first season cereals continue to develop for harvest from October, and there is concern due to a recent escalation of conflict, dry spells in parts of Warrap as well as Kapoeta in Eastern Equatoria, and impacts from flooding. As of early August, early season flooding continued in parts of the country, inundating agricultural fields. Since the beginning of the rainy season, 90,000 people have been affected by flooding in Jonglei, Northern Bahr el Ghazal, Unity, Upper Nile, and Warrap states, and agricultural fields have been damaged. In Jonglei, 30,000 people were affected by floods in Ayod County, and 18,000 were affected in Fangak County since May. Furthermore, a lack of agricultural inputs such as fuel has limited mechanized farming and is likely to impact production throughout the country. In **Djibouti**, planting of main season sorghum and millet crops continued under favourable conditions, and harvest will take place from November. In **Eritrea**, winter wheat crops are in vegetative to reproductive stage while planting of main season sorghum crops is underway, and overall conditions are favourable. In **Yemen**, main season sorghum and spring wheat crops are in vegetative to reproductive stage for harvest from September. There is ongoing concern for sorghum crops due to persistent socio-economic challenges and conflict as well as flash flooding. Despite good rainfall throughout most of the season from the western coast to some central areas, torrential rains in late July and widespread flooding impacted al-Mahrah, Hadramawt, Shabwa, Abyan, and Al Jawf governorates, compounding the impacts of previous flooding between mid-April and June of this year.

Southern East Africa

In **Uganda**, harvesting of first season cereals is complete or nearing completion, and there is concern for crops due to erratic rainfall and dry spells in the North and in localized areas of the centre and south. In Karamoja, periods of dryness and erratic rainfall is likely to impact crop yields. Planting and development of second season maize crops is underway, and conditions are favourable. In **Kenya**, harvesting of *Long Rains* cereals finalized in August in minor producing bimodal regions under failure conditions due to below-average and erratic rainfall. Production in these marginal producing areas is officially estimated at 42 to 70 percent below-average with high variability at the local level. The performance of the *Long Rains* cropping season was comparatively better in the key growing areas of Rift Valley and Western provinces, where cumulative seasonal rains were average to above-average but had an erratic temporal distribution. Below-average precipitation amounts in March, which forced several farmers to re-plant, were followed by above-average rains in April and May and then a return to below-average rains during most of June, which affected cereal crops during the critical flowering phase. Subsequently, improved precipitation in July and August lifted crop prospects, but some damage was irreversible. As a result, crop production in these areas is officially forecast at 5 to 10 percent below-average and below the previous year's level. In **Somalia**, harvesting of *Gu* season maize and sorghum crops finalized in August with below-average yields as crops were unable to recover from persistent dry conditions throughout the season as well as flash flooding in some areas. From August 11th, flooding occurred along the Shabelle River in Middle Shabelle region due to inflows from upper catchments of the Shabelle river in the Ethiopian highlands, and an estimated 400 hectares of crops have been destroyed. In **Burundi**, harvesting of main Season B maize and rice crops finalized under favourable conditions. The February to May *Long Rains* season was categorized by early onset and above-average rains in February. Below-average rainfall amounts in March and April were followed by a return of abundant rains in May, and overall cumulative rainfall amounts for the season were 10 to 25 percent above-average, benefitting crop establishment and development with a positive impact on yields. However, above-average cumulative rainfall led to the rising level

inundated the capital city of Addis Ababa. While conditions remain favourable for crop development in most areas, forecast above-normal rainfall from mid-August to mid-September over northern areas is likely to exacerbate flooding (See Regional Outlook Pg. 8). Conversely, there is concern for crops in parts of Western Oromia and SNNPR region in the centre and southwest of the country due to delayed onset and erratic rainfall distribution. Also, in Tigray region, the agricultural planting season has been missed in many areas due to conflict. Despite good planting conditions with a significant increase in rainfall, many farmers remain unable to plant, mostly due to lack of seeds. In **Sudan**, main season millet and sorghum crops are in vegetative to reproductive stage for harvest from November, and conditions are generally favourable due to above-average rainfall for the June through August period except in the east where recent flooding may impact crops. As of August 17th, 55,000 people have been

of Lake Tanganyika and the overflow of the Rusizi River, displacing 40,000 people and resulting in localized crop losses. In **Rwanda**, harvesting of main Season B maize crops finalized in August under favourable conditions. Land preparation is underway for second Season A maize crops, and planting will begin in September. In the **United Republic of Tanzania**, harvesting of *Masika* season cereals finalized in bimodal areas of the north, and harvesting of *Msimu* season rice crops finalized in unimodal areas of the centre and south. Final conditions were favourable throughout the country.

Regional Outlook: Continued below-average rainfall likely to exacerbate dry conditions in the south, particularly in Kenya and Somalia

Rainfall in central and southern parts of the region was mainly average to below-average during recent weeks, while rainfall in far-northern areas was above-average. Figure 1-left shows percent-of-average rainfall from June 1st to August 20th. Northern areas are on track for average to above-average June-to-September rainfall totals, while drier-than-average conditions have affected many central and southern areas.

Recent heavy rains in northern Ethiopia and Sudan, combined with saturated ground conditions from a much wetter-than-average June and July, caused flood-related damages and fatalities in numerous areas of Sudan and Ethiopia in August, including along the Nile River in both countries and along the Awash River in Ethiopia's Afar region. There is an ongoing risk of flooding in already-saturated areas.

Areas with prevailing drier-than-average conditions and a high likelihood of maintaining much below-average seasonal totals from June 1st and March 1st into September include Uganda, south-central and southwestern Ethiopia, southern South Sudan, northwestern and eastern Kenya, and southern Somalia (Figure 1-left and middle). Most of Uganda has had below-average rainfall since June, following below-average March-to-May rainfall totals in many of the same areas. CHIRPS indicates severe dry conditions from June 1st to August 20th in northern Uganda as well as in some central and southern areas.

The [latest assessment](#) for Ethiopia's March-to-November season shows very high probabilities of drought in the central Oromia region. Near the Central Rift Valley, March 1st to August 20th rainfall totals are the lowest in the past 40 years, and rains were poorly distributed. Below-normal seasonal rainfall totals are expected. The assessment also highlights probable below-normal seasonal totals in portions of eastern Oromia, central Tigray, Gambella, and southwestern Benishangul-Gumuz. These deficits occur in many regions that also received poor rains in the October-to-December 2020 rainfall season.

During late August and early September, heavy rainfall (100 mm+) is forecast in western and northern Ethiopia, and in some of Sudan's surplus areas, based on the GEFS forecast from August 25th and the [ICPAC East Africa Hazards Watch](#) weekly forecast for August 23rd to Aug 30th. Below-average rainfall is predicted for south-central Ethiopia, Uganda, and western Kenya through September 5th.

The next season (October-to-December 2021) is likely to bring below-normal rains in much of the region. There is consensus among international and regional forecasting centers (Figure 1-right, See East Africa Seasonal Forecast Alert Pg. 5) for increased chances of below-normal rainfall in many areas. This is consistent with forecast La Niña-like conditions and forecast continuation of the negative Indian Ocean Dipole conditions. The [GHACOF59](#) forecast indicates increased chances for drier and warmer-than-usual conditions in Tanzania, Burundi, Rwanda, Kenya, southern, central, and north-western Somalia, southern and south-eastern Ethiopia, and the Red Sea coast of northern Eritrea (Figure 1-right).

There are heightened risks for a third consecutive below-average rainfall season in eastern areas and corresponding successive poor agricultural production prospects for the eastern Horn. There is also an elevated risk of a poor 2022 March-to-May rainfall season, especially in eastern areas. These concerns are outlined in the East Africa Seasonal Forecast Alert (See Pg. 5) as well as by the [GHACOF59](#), which highlights the cross-border area of Kenya and Somalia as being a particular area of concern, and the concerns about dry conditions throughout 2021 in many areas of the region.

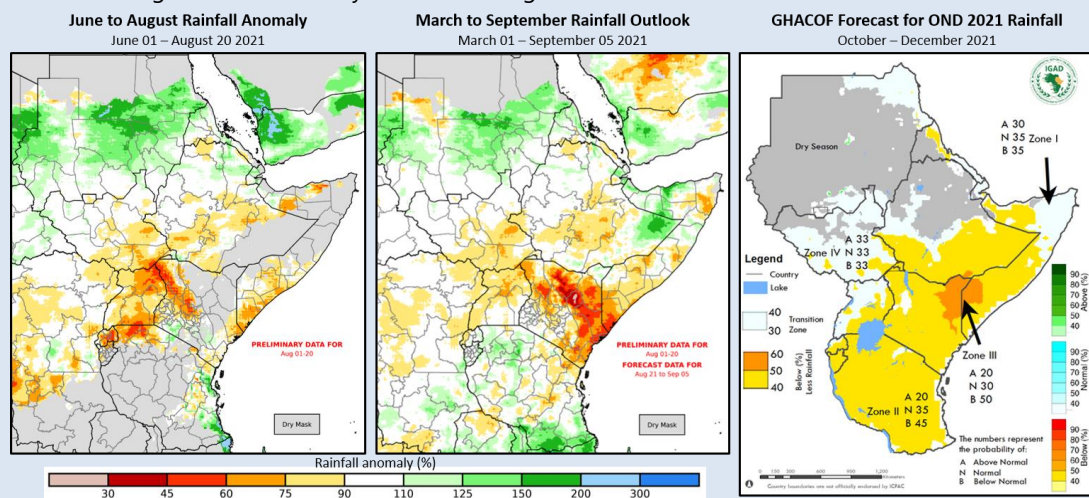
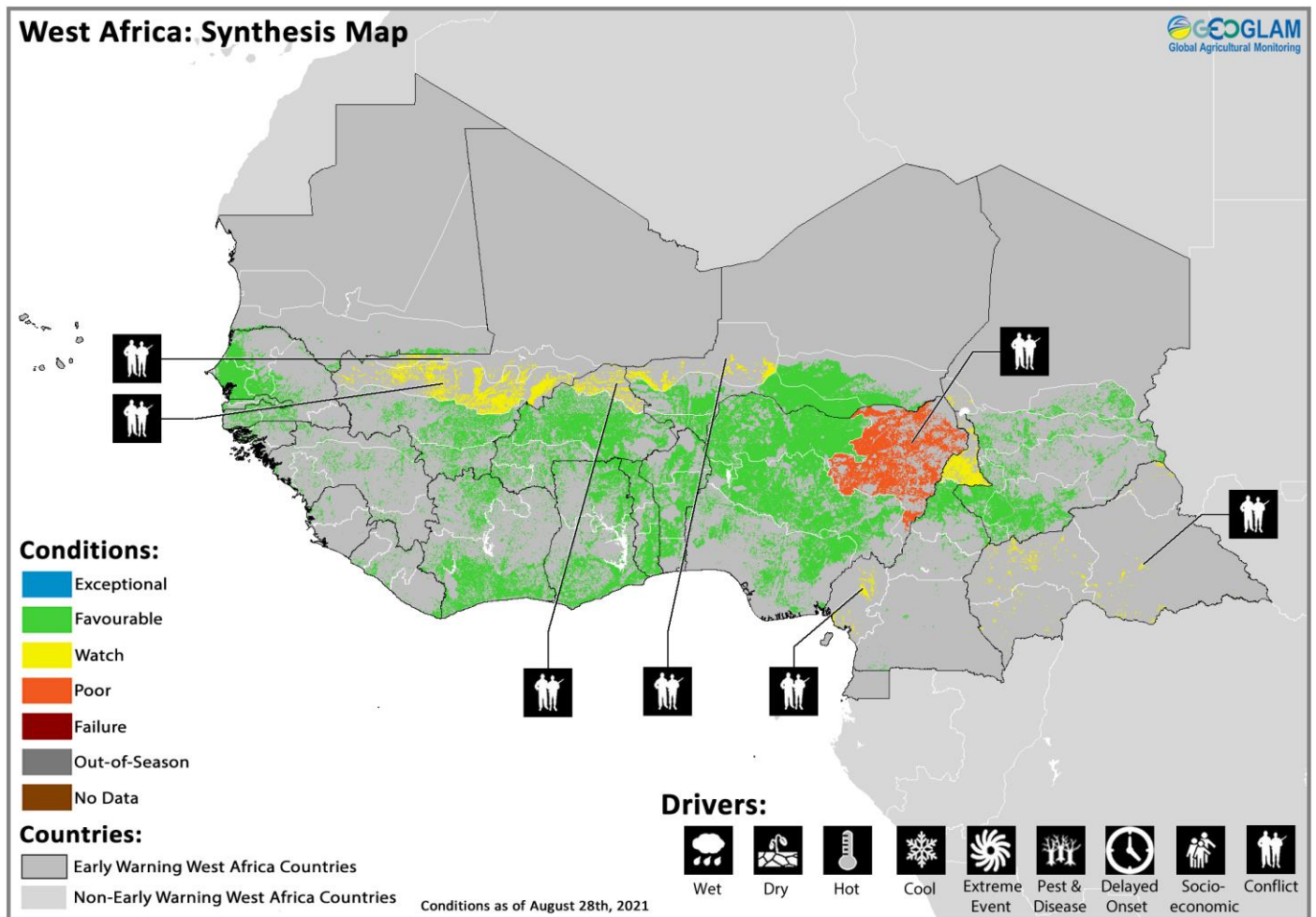


Figure 1. June-to-present rainfall anomaly, March-to-September 5th rainfall anomaly outlook, and the Greater Horn of Africa Climate Outlook Forum (GHACOF59) forecast for October-November-December (OND) 2021 precipitation. The left and middle panels are CHC Early Estimates, which compare 2021 rainfall amounts to the 1981-2020 CHIRPS average. On the left is the rainfall anomaly for June 1st to August 20th, expressed as a percent of average. The middle panel indicates what the post-March 1st rainfall percent of average would be if the 15-day unbiased GEFS forecast from August 21st materializes. The right panel shows the GHACOF59 consensus probabilistic rainfall forecast for October to December, 2021. GHACOF59 image from [ICPAC](#). Source: UCSB Climate Hazards Center

West Africa



Crop condition map synthesizing information as of August 28th. Crop conditions over the main growing areas are based on a combination of inputs including remotely sensed data, ground observations, field reports, national, and regional experts. **Crops that are in other than favourable conditions are labeled on the map with their driver.**

In the south of the subregion, harvesting of main season maize finalized in **Nigeria** and is underway in **Liberia, Cote d'Ivoire, Ghana, Togo, and Benin**. Main season sorghum crops are in vegetative to reproductive stage in **Cote d'Ivoire, northern Ghana, Togo, Benin, Cameroon, and southern Chad**. Additionally, planting and development of second season cereals continues in **Cote d'Ivoire, southern Ghana, southern Togo, southern Benin, Nigeria, and central Cameroon** while harvest begins in southern **Cameroon**. In the north of the subregion, planting and development of main season cereals continues in **Mauritania, Senegal, Gambia, Guinea-Bissau, southern Mali, Burkina Faso, and southern Niger**. Throughout the subregion, conditions are generally favourable due to good rainfall received. However, crops in northeastern **Nigeria** have failed due to persisting conflict, and concern remains in Far North and Southwest regions in **Cameroon, Lac region in Chad, the Central African Republic, northern Burkina Faso, central Mali, and southwestern Niger** where conflict continues to disrupt agricultural activities. From July to early August, rainfall has been above-average across many parts of the Sahel. In August, frequent heavy rainfall has resulted in flooding in parts of southern **Niger, Nigeria, southern Chad, Mali, Burkina Faso, Senegal, and Guinea**. Forecast continued rainfall is likely to increase the risk of flooding in **Guinea, Sierra Leone, and northern Liberia** (See Regional Outlook Pg. 10). In **Nigeria**, several days of heavy rain resulted in flooding in early August and affected the north and northeastern states of Jigawa, Bauchi, and Adamawa. In **Niger**, heavy rainfall from mid-June has resulted in extensive flooding and landslides, particularly in Maradi in the south, Agadez in the north, and Niamey in the southwest. Additionally, insecurity is spreading rapidly, and attacks in Tillabery region as well as along the borders with Burkina Faso, Mali, and Nigeria have led to significant displacement.

Regional Outlook: Above-average rainfall forecast along the Gulf of Guinea through September

Rainfall was mainly average or above-average during recent weeks. Figure 1-left shows preliminary estimates for July 21st to August 20th, in terms of the difference from average. Many June-to-September rainfall season areas had moderate to locally large rainfall surpluses, ranging from 110% to higher than 150% of average. Flooding and fatalities associated with heavy rains and saturated ground conditions were reported in Niger (Niamey), Cameroon (Douala), and in northern and northeastern Nigeria in August. Earlier deficit areas in central and southwestern Nigeria improved since late July. However, according to several rainfall products, southeastern Nigeria and western Cameroon experienced below-average rainfall (50 to 100 mm+ deficits and less than 75% of average).

Based on a GEFS forecast from August 21st, seasonal rainfall totals from May 1st to September 5th will be mixed across the region (Figure 1-middle). Rainfall has been poorly distributed in some areas with average to below-average totals, including in portions of Senegal, Mali, western Niger, Burkina Faso, northern Nigeria, and Chad.

The two-week forecast indicates above-average rainfall along the Gulf of Guinea, with very high amounts in coastal Liberia and Ghana, and below-average or average rainfall for most central and northern areas, from Senegal to Chad and northern Nigeria.

According to the SubX 30-day forecast, and similar to the shorter range GEFS outlook, wet conditions are expected along the Gulf of Guinea, while below-average rainfall is forecast in Senegal and Guinea (Figure 1-right). The wet conditions along the Gulf indicate an earlier-than-normal southward movement of the ITCZ and a possible early end to the Sahel rainfall season.

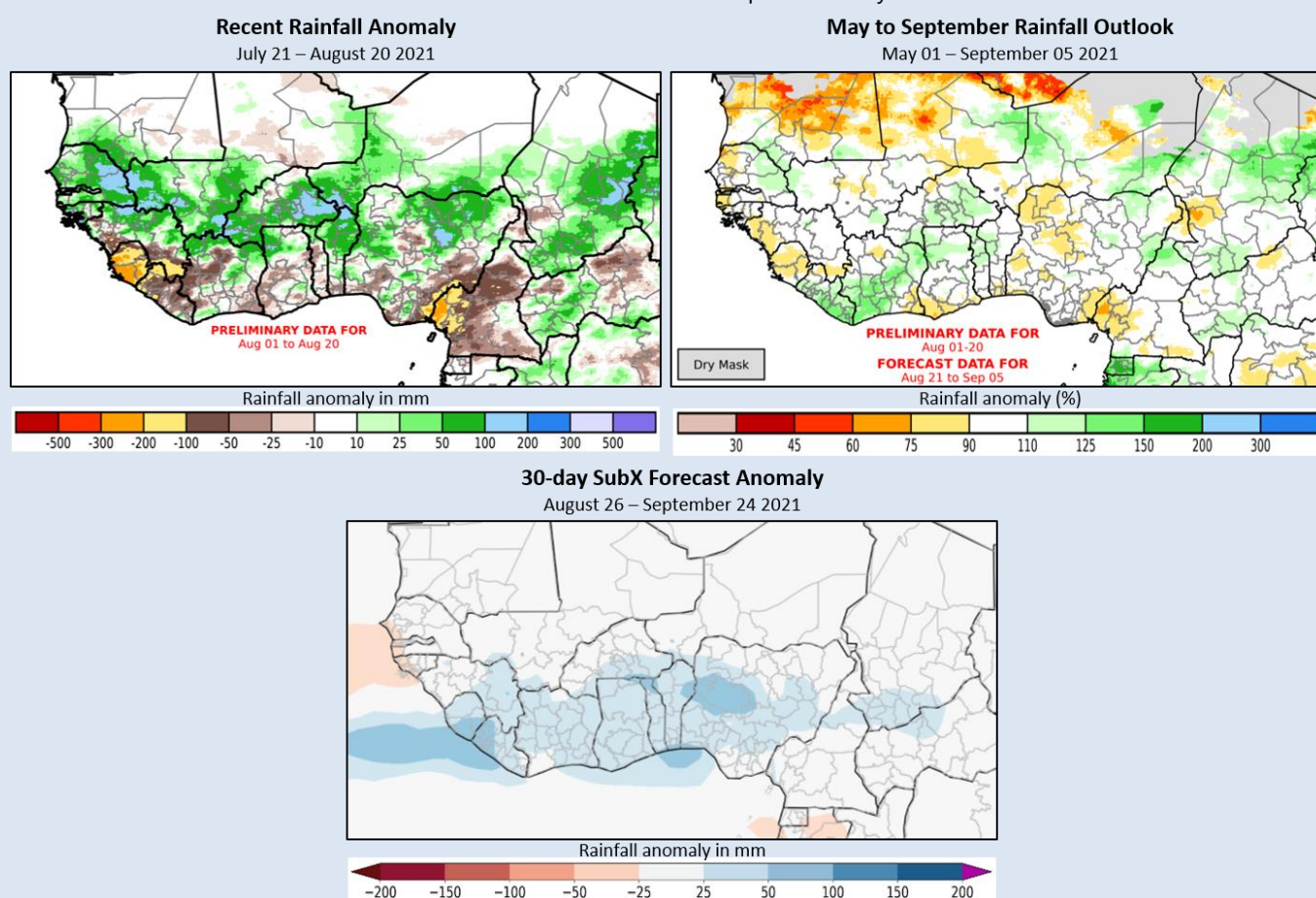


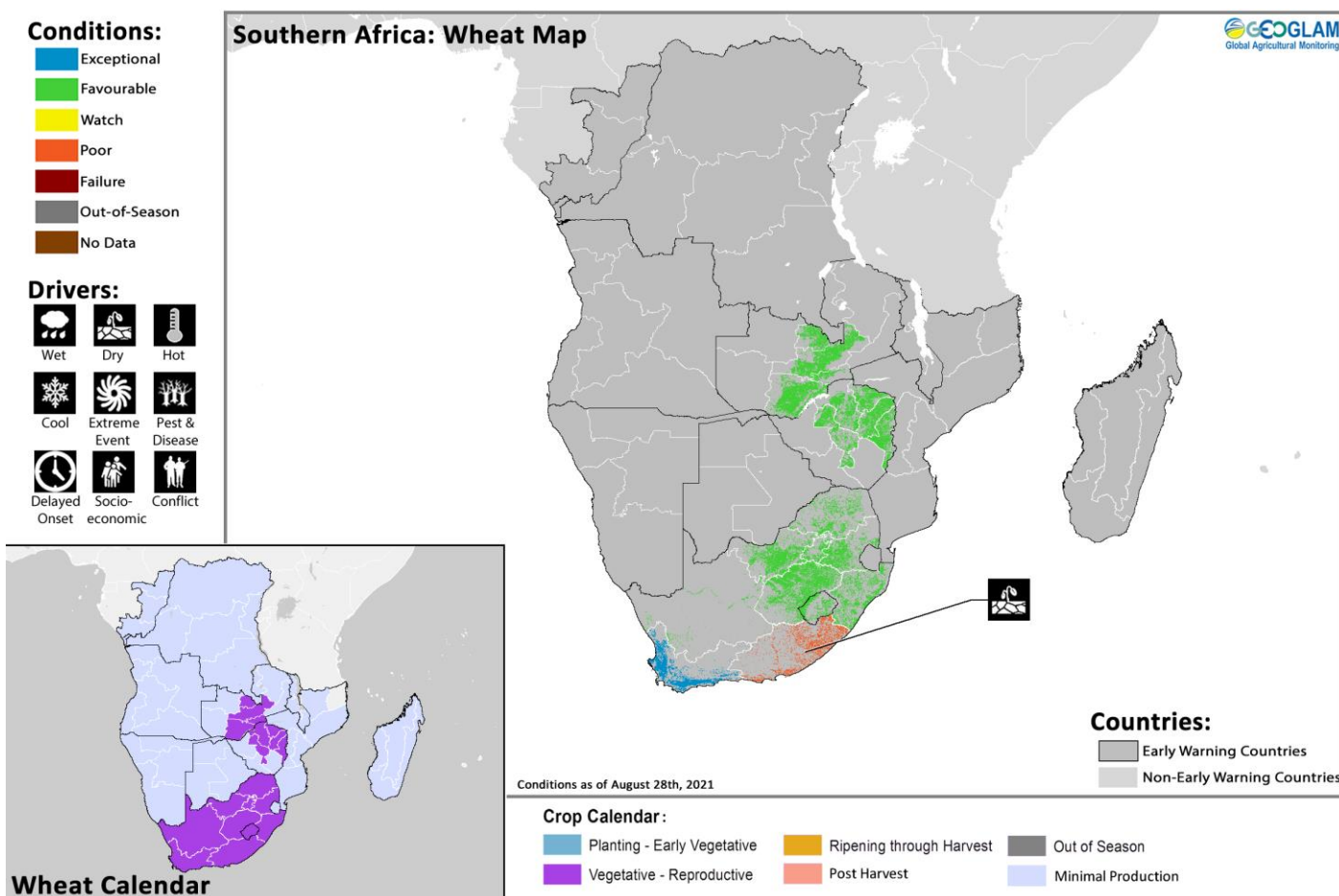
Figure 1. Estimated rainfall anomaly for July 21st to August 20th, May 1st to September 5th rainfall anomaly outlook, and a 30-day rainfall anomaly forecast from August 26th. The left and right panels are CHC Early Estimates, which compare 2021 rainfall amounts to the 1981-2020 CHIRPS average. On the left is the rainfall anomaly for July 21st to August 20th. The right panel indicates what the post-May 1st rainfall percent of average would be if the 15-day unbiased GEFS forecast from August 21st materializes. The bottom panel is a 30-day forecast from August 26th. The anomaly is based on the 1999 to 2016 model average. Skill assessments of SubX can be accessed [here](#).

Source: UCSB Climate Hazards Center

Middle East & North Africa

In the Middle East and North Africa, harvesting of winter wheat crops finalized last month under mixed conditions with several regions impacted by persistent dry and hot conditions throughout the season. Land preparation for winter wheat will begin next month, and planting will begin in October. However, In **Tunisia** and **Algeria**, wildfires from early August have damaged farms, infrastructure, and livelihoods. In **Tunisia**, the governorates of El Kef, Jendouba, and Kasserine have been particularly affected. In northern **Algeria**, wildfires have been affecting the Kabylia Region since August 9th and are spreading to new areas. In **Egypt**, main season maize crops and summer-planted rice crops are in vegetative to reproductive stage under favourable conditions due to abundant irrigation water supply. Planting of *Nili* season (Nile Flood) rice crops continues in the Nile and Nile Delta region for harvest from December under favourable conditions.

Southern Africa

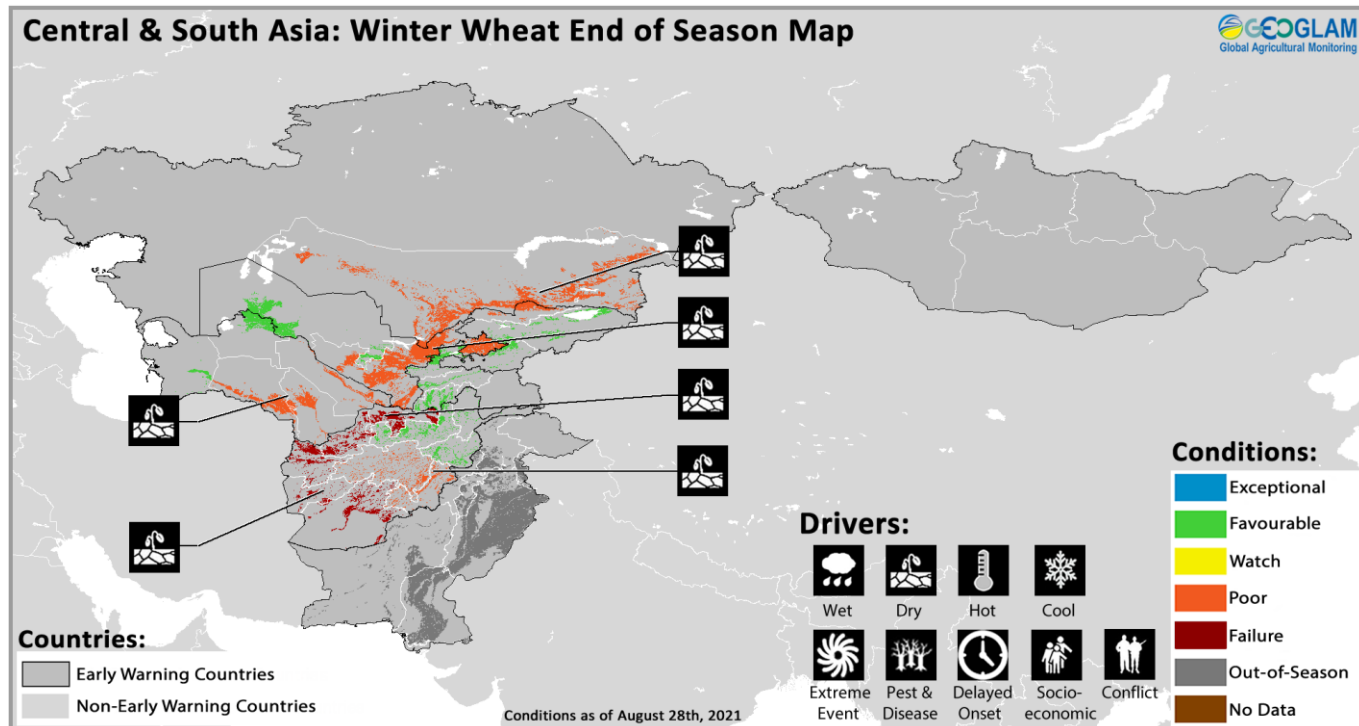


Crop condition map synthesizing information as of August 28th. Crop conditions over the main growing areas are based on a combination of inputs including remotely sensed data, ground observations, field reports, national, and regional experts. **Crops that are in other than favourable conditions are labeled on the map with their driver.**

In Southern Africa, winter wheat crops continue to develop under generally favourable conditions in **Lesotho, South Africa, Zimbabwe, and Zambia** for harvest from September. In **Zambia**, harvesting of the winter wheat crop is expected to finalize in November, and production is expected to be above-average due to an expansion in planted area as well as government support. In **South Africa**, conditions are generally favourable, particularly in the major producing Western Cape where there has been excess rainfall, and conditions in the Free State region have improved from the previous month's dry conditions. Conversely, crops in the minor producing Eastern Cape are unlikely to recover from prolonged dry conditions. Overall, the preliminary production forecast indicates an almost unchanged year-on-year wheat output in 2021 at just over two million tonnes.

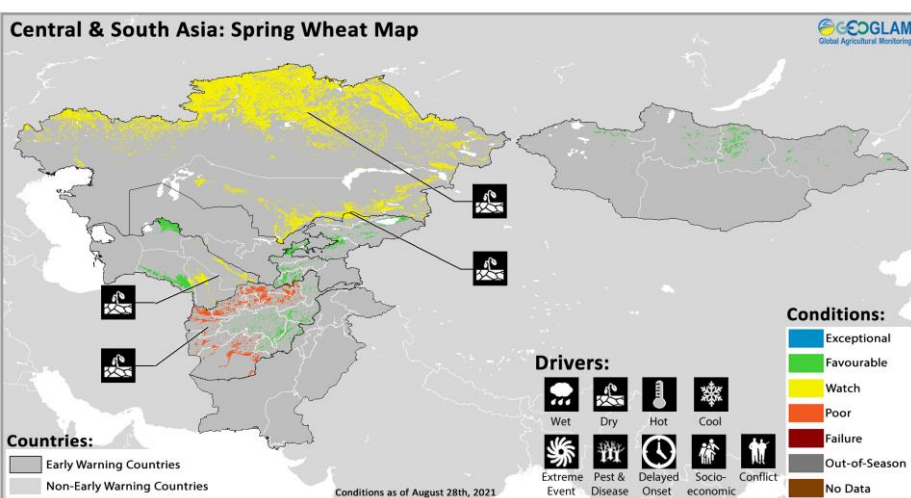
In Southern Africa, land preparation and planting of 2021/2022 main season cereals will begin in September. In the **Democratic Republic of the Congo**, planting and development of main season cereals is underway. While agroclimatic conditions have been generally favourable for crop development, increased violence in the eastern provinces in combination with the eruption of the Nyiragongo Volcano in May resulted in new population displacements that have impacted agricultural activities in localized areas, including land preparation for main season cereals. Harvesting of second season maize crops is nearing completion in the bimodal northern provinces under favourable conditions as precipitation amounts have been near-average in most cropping areas. Throughout the country, ongoing conflict and displacements as well as continued COVID-19 related restrictions continue to impact agricultural activities and limit farmers' access to fields and inputs.

Central & South Asia



Crop condition map synthesizing Winter Wheat information as of August 28th. Crop conditions over the main growing areas are based on a combination of inputs including remotely sensed data, ground observations, field reports, national, and regional experts. **Crops that are in other than favourable conditions are labeled on the map with their driver.**

In Central and South Asia, harvesting of winter wheat crops finalized in **Afghanistan, Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan, and Uzbekistan**. Final conditions were mixed as crops in northwest, west, and southern **Afghanistan** failed while below-average yields resulted in central **Afghanistan**, southern **Kazakhstan**, northern **Kyrgyzstan**, parts of **Turkmenistan**, and south, southeast, and central-east **Uzbekistan** due to persistent dryness throughout the season. Conversely, final yields were near-average in east and northeastern **Afghanistan**, central and southern **Kyrgyzstan, Tajikistan**, west and northern **Turkmenistan**, and parts of **Uzbekistan**. Planting of the 2021/2022 winter wheat crop will begin in September; however, another season of below-average precipitation for fall and winter is expected (See Seasonal Forecast Alert Pg. 13). In **Uzbekistan**, production in Kashkadarya, Samarkand, Jizzakh, Sirdarya, and Navoiy districts is expected to be below-average due to low seasonal rainfall and erratic and above-average temperatures. Conversely, production is expected to be near-average in Fergana, Namangan, and Andijan districts in the northeast. In **Kyrgyzstan**, crop biomass in the main producing northern provinces of Chuy, Talas, and Ysyk Kol is below-average due to erratic temperatures, dry conditions in April through June, and reduced irrigation water supply. Elsewhere, biomass is near-average. In **Turkmenistan**, prospects for winter wheat crops are below-average due to dry conditions, a shortage of irrigation water supply, and high temperatures following a cold winter, together resulting in below-average crop biomass. In **Afghanistan**, a moderate to strong La Niña event in the second half of 2020 resulted in below-average precipitation amounts across the country, limiting snow



Crop condition map synthesizing Spring Wheat conditions as of August 28th. Crop conditions over the main growing areas are based on a combination of inputs including remotely sensed data, ground observations, field reports, national, and regional experts. **Conditions that are other than favourable are labeled on the map with their driver.**

accumulation that is critical for water supply during the spring and summer agricultural seasons. Drought was officially declared on June 22nd and was the second drought to impact the country in four years. Consequently, below to well below-average yields resulted in several areas. While favourable conditions resulted for crops in the east and northeast with near-average production, poor to failure conditions resulted for crops in the northwest, west, south, and centre with significantly below-average final production. In **Pakistan**, planted area of the *Kharif* (summer) season rice crop is forecast to be close to the previous year's high level, and crops are developing under favourable conditions for harvest from October. In Punjab, crop biomass is above-average. In Sindh and Balochistan, crop biomass is close to

average but below 2020 levels due to decreased planted area of irrigated rice as a result of reduced irrigation water supply. While rainfall from late July through August has been below-average in the south, irrigation water availability from the north is the main driver of crop production.

Harvesting of spring wheat crops is underway in **Afghanistan, Kazakhstan, Tajikistan, and Turkmenistan** while crops continue to develop in **Kyrgyzstan and Mongolia** for harvest from September. Conditions are mixed as crops in north, west, and southern **Afghanistan** are unlikely to recover, and there is concern for crops in **Kazakhstan**, northern **Kyrgyzstan**, and eastern **Turkmenistan** where persistent dry and hot conditions may limit yields. However, conditions in central, east, and northeastern **Afghanistan, Mongolia**, central and southern **Kyrgyzstan, Tajikistan**, and central **Turkmenistan** are favourable. In **Afghanistan**, average yields resulted for spring wheat in the centre, east, and northeast. Elsewhere, dry conditions and a lack of irrigation water supply reduced the cultivated area, and below-average yields resulted. In **Kazakhstan**, below-average precipitation amounts in combination with above-average temperatures from May have negatively impacted soil moisture and resulted in below-average vegetation conditions in the north, including in main producing Kostanay and Akmola provinces. Overall, unfavourable weather conditions throughout the season are expected to limit yields. In **Mongolia**, good soil moisture conditions have resulted in above-average biomass despite localized flooding.

Seasonal Forecast Alert: Second consecutive season of below-average precipitation forecast for Fall and Winter 2021-2022

There is increased risk of another season of below-average precipitation in Central Asia during fall and winter of 2021-2022. The at-risk regions include areas that were negatively impacted by dry weather conditions during the 2020-2021 winter wheat and spring wheat growing seasons.

Multiple international and regional forecasting centers indicate that October 2021-to-January 2022 precipitation will likely be below-normal, once again. Thus, early to mid-season precipitation will likely range from average to below-average, potentially resulting in lasting negative impacts on crops, low snowpack levels, and limited irrigation supply.

The WMO forecast from August indicates greater-than-50% chances of below-normal precipitation in central and northern Afghanistan, southern Turkmenistan, southern Uzbekistan, and elsewhere (Figure 1-left). NMME and C3S forecasts similarly indicate elevated chances for below-normal precipitation across Central Asia as well as higher confidence for this in and near Afghanistan.

Increased chances for below-normal precipitation are consistent with the drying impacts of La Niña-like climate conditions. While ENSO conditions are currently neutral, CPC/IRI has issued a La Niña Watch. There are indications from observations and some models that a La Niña event will develop from September to November and continue into early 2022 (69% chance for November-to-January, according to CPC/IRI's August forecast). Even in the absence of a full La Niña, however, La Niña-like climate can lead to dry conditions over this region.

During 2020-2021, low precipitation impacted soil moisture and irrigation supply, resulting in water deficits during key months of crop development. Along Afghanistan's Helmand River, and in other southern and central Afghanistan river basins, streamflow peaked in April at rates near the lowest in the past 20 years (Figure 1-right). Snowpack is currently below-average in high-elevation areas of eastern Afghanistan, central Tajikistan, northern Pakistan, and portions of Kyrgyzstan as periods of improved weather provided limited recovery from persistent dry conditions.

The possibility of below-normal precipitation during the upcoming season is highly concerning, even when considering the uncertainty in long-range forecasts. Afghanistan is in the midst of a humanitarian crisis. In addition, a second year of poor or mediocre precipitation performance could prolong recovery from 2020-2021 drought impacts in affected areas of the region.

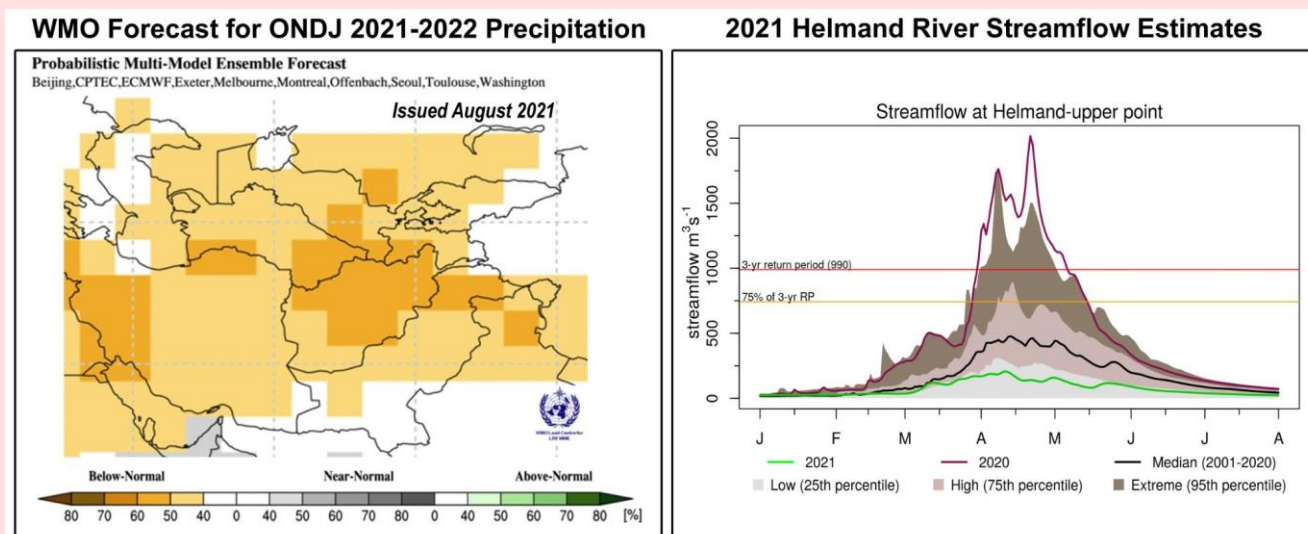
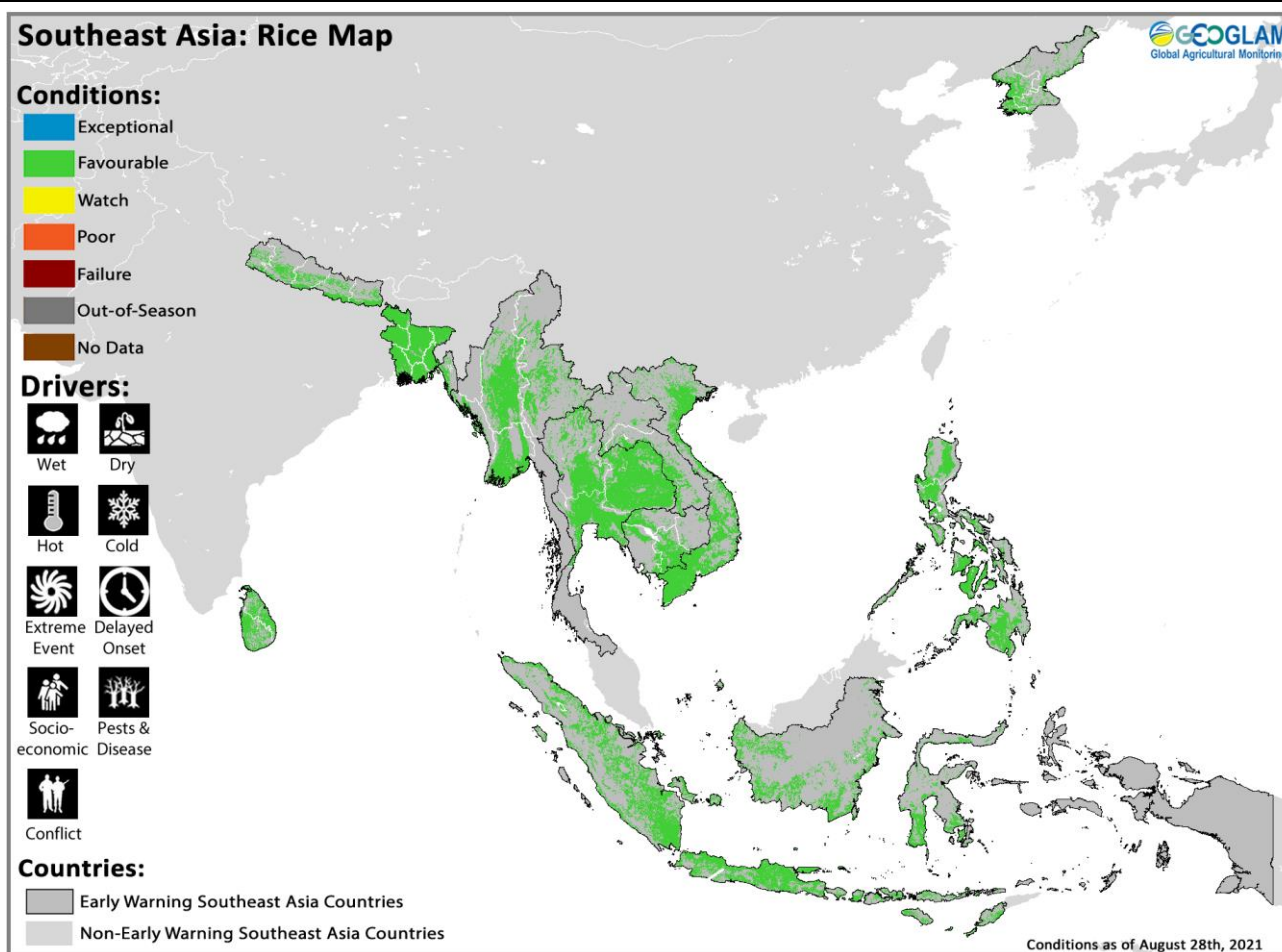


Figure 1. Left-- WMO probabilistic forecast for October-to-January 2021-2022 precipitation, based on models initialized in August. From [WMO Lead Centre Long-Range Forecast Multi-Model Ensemble](#). Right-- Model estimates for 2021 streamflow at the Helmand River. The green line shows 2021 streamflow rates below the 25th percentile, indicating rates among the lowest of 2001 to 2020. From the [USGS FEWS NET Data Portal](#) "Afghanistan Streamflow and Runoff." Source: Climate Hazards Center

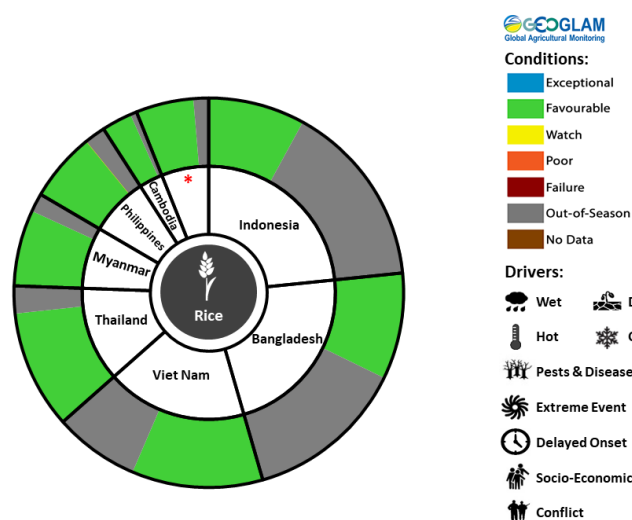
Southeast Asia



Crop condition map synthesizing rice conditions as of August 28th. Crop conditions over the main growing areas are based on a combination of inputs including remotely sensed data, ground observations, field reports, national, and regional experts. **Crops that are in other than favourable conditions are labeled on the map with their driver.**

In northern Southeast Asia, wet-season rice is in tillering to harvesting stage with harvest underway in **Cambodia**, the **Philippines** and southern **Viet Nam**. Growing conditions are generally good due to sufficient rainfall received. While drought and flood damage has been reported in some countries, damage is minimal. In **Indonesia**, harvesting of earlier planted dry-season rice crops is underway with yield slightly higher than the previous year due to sufficient precipitation during the growing season. However, planting progress remains at a low level as farmers are still preparing land following the protracted wet-season. In the **Philippines**, wet-season rice planted in April and May is in the maturing to harvesting stage under favourable conditions. High precipitation associated with the Southwest Monsoon has fallen in northern Luzon and parts of Mindanao. In late July, typhoon Fabian enhanced the Southwest Monsoon and brought heavy and continuous rains, resulting in flooding and landslides in parts of Luzon and Visayas. However, damage was minimal as many fields were harvested prior to its passage. In **Thailand**, wet-season rice is in tillering to young panicle forming stage, and conditions are favourable due to sufficient rainfall received as well

as a timely start to the rainy season that allowed farmers in north and central regions to plant immediately after harvesting the previous season. Both planted area and production are expected to increase due to favourable weather conditions and good paddy prices. In **Viet Nam**, summer-autumn (wet-season) rice is in young panicle forming stage in the north while harvesting is underway in the south, and growing conditions are favourable due to better irrigation preparation and warm weather. Additionally, seasonal and autumn-winter (wet-season) rice is in seeding, tillering, and young panicle forming stages under favourable conditions. In lowland areas of **Laos**, wet-season rice is in young panicle forming stage under favourable conditions, and weather conditions and irrigation water supply is generally good for paddy growth. While some areas were impacted by heavy rainfall and flooding in late July, no



* Nepal, Sri Lanka, Lao People's Democratic Republic, Democratic People's Republic of Korea

For detailed description of the pie chart please see description box on Pg. 17.

damage has been reported. In upland areas, wet-season rice crops are in young panicle forming stage under favourable conditions. In **Myanmar**, wet-season rice is at tillering to panicle forming stage under generally favourable conditions, and planting progress has reached 70 percent of the national plan of 6.09 million hectares, slightly faster than the previous year. In August, average to above-average monsoon rainfall in main producing northern and southern regions benefitted planting activities and crop germination. However, heavy rains resulted in flooding in several areas, particularly in the lower and river basin areas. An estimated 8,100 hectares of planted area has been affected by the floods, and 265 hectares have been damaged. Conversely, well below-average rainfall in the central region, including Magwe, Mandalay, and Sagaing regions and Shan State, have delayed planting and affected early crop development. Moisture deficits may impact yields in localized regions, and some farmers have planted other drought-resistant crops in place of paddy. Additionally, political instability since early February has resulted in supply chain disruptions that could impact production. In **Cambodia**, planting of wet-season rice is nearing completion, and overall conditions are favourable despite uneven rainfall distribution in some regions. Harvesting of early planted crops is underway, and yield in harvested areas is estimated to be the same as the previous year. However, final yield is forecast to decrease slightly as the drought area expanded to two percent of the planted area in the northwest. In **Sri Lanka**, harvesting of *Yala* season maize and rice crops began under favourable conditions due to above-average rainfall from the Southwest Monsoon, and harvesting will finalize in October. In **Bangladesh**, harvesting of *Aus* season rice crops finalized in August under favourable conditions. Planting of *Aman* season rice crops continued under favourable conditions with adequate soil moisture, and crops will be harvested from mid-November. In **Nepal**, harvesting of main season maize crops began in August under favourable conditions and will finalize next month. Main season rice crops continue to develop under favourable conditions for harvest from November. Soil moisture conditions are adequate for continued crop development due to abundant rainfall from May and despite localized flooding and landslides throughout the season. In the **Democratic People's Republic of Korea**, harvesting of main season maize crops is underway while main season rice crops continue to develop, and overall conditions are favourable. While rainfall was below-average in the southern half of the country, including in the rice bowl provinces of North Hwanghae, South Hwanghae, and South Pyongan, biomass for both maize and rice crops is above-average. Abundant rainfall in the northeast provinces of South and North Hamgyong resulted in flooding, but damage was minimal. Despite favourable crop conditions, substantial COVID-19 related trade declines are likely to result in food shortages.

Regional Outlook: Above-average rainfall forecast for September through December across much of the region

Rainfall was below-average in recent weeks in some mainland areas of the region, from central Laos to Vietnam, as well as in eastern Malaysia and the Philippines (Figure 1-left). Many of these same areas have been persistently drier than average since May. Most southern areas of the region received average to above-average rainfall in recent weeks.

Wetter-than-average conditions are forecast in many areas during the next several months. Through late September, average to above-average rainfall and above-average temperatures are likely in most areas, according to the SubX 30-day forecast (Figure 1-middle). Areas with forecast below-average rainfall include portions of Indonesia's northern Sumatra, the southern Malay Peninsula, and far northern Laos and Vietnam. During October to December, the WMO forecast from August indicates high chances (>70%) of above-normal rainfall across southern Indonesia as well as increased chances of above-normal rainfall in southern mainland areas and in the Philippines (Figure 1-right). This is consistent with increased chances for La Niña-like climate conditions (67% chance for La Niña, according to the CPC/IRI August official forecast) and the forecast continuation of negative Indian Ocean Dipole conditions (79% to 56% chance for September to November, according to the Australia Bureau of Meteorology).

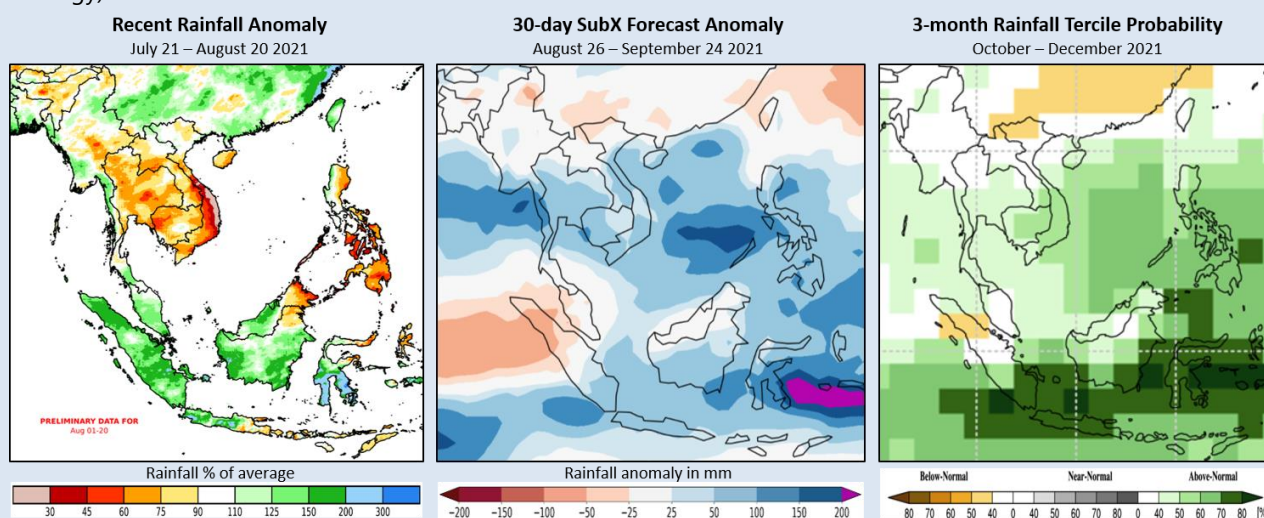
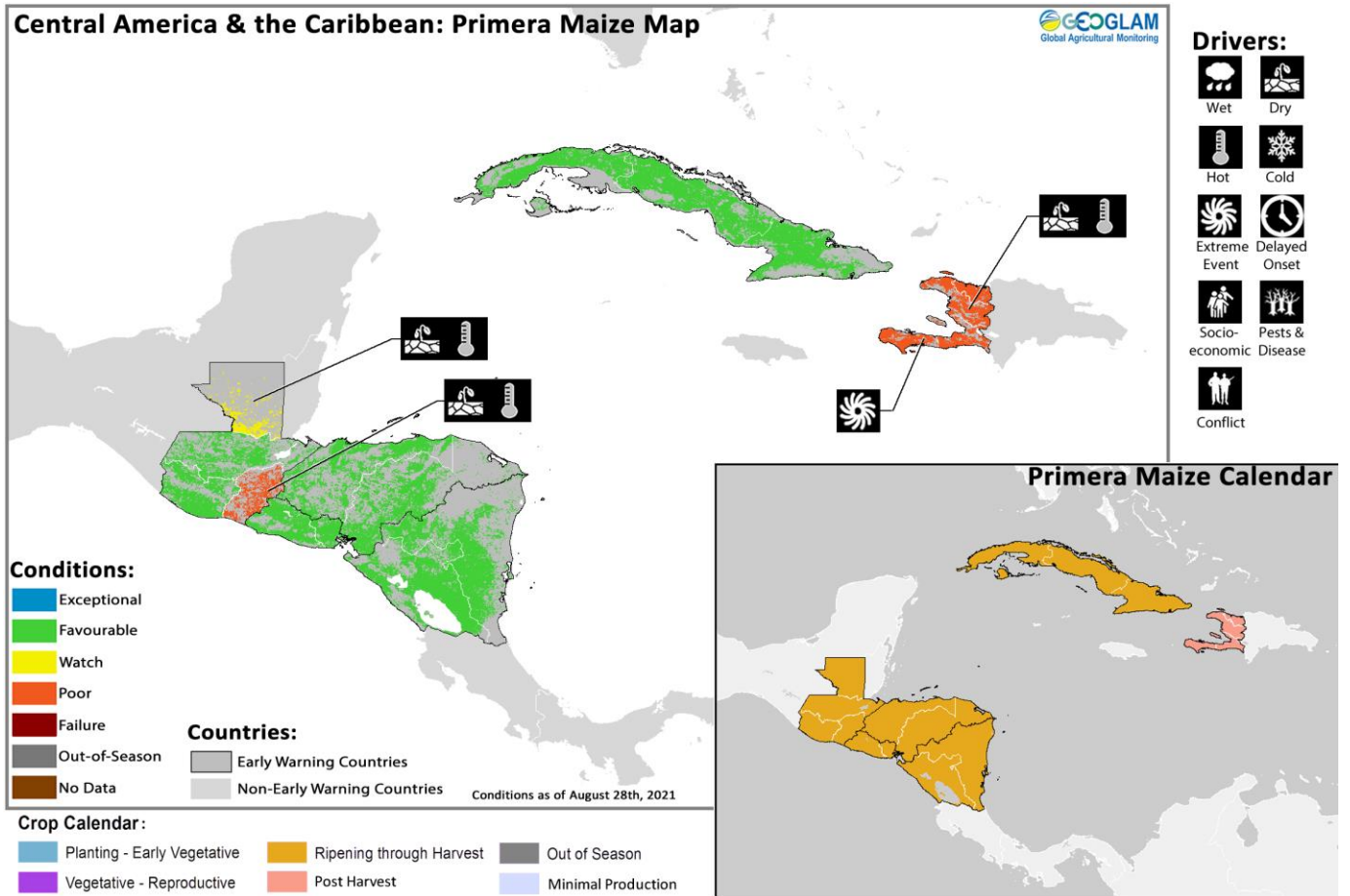


Figure 1. Recent rainfall anomaly, a 30-day rainfall forecast anomaly, and a 3-month rainfall forecast probability. The left panel is a CHC Early Estimate, which compares July 21st to August 20th, 2021, rainfall amounts to the 1981–2020 CHIRPS average. These are expressed as a percent of average. The middle panel is a 30-day forecast rainfall anomaly from August 26th. The image shows the average of six Subseasonal Experiment (SubX) model forecasts from that day. The anomaly is based on the 1999 to 2016 model average. Skill assessments of SubX can be accessed [here](#). The right panel is a probabilistic forecast for most-likely October–November–December 2021 rainfall tercile from the [WMO Lead Centre for Long-Range Forecast Multi-Model Ensemble](#), based on August conditions. White color indicates that there is no dominant category across the model forecasts.

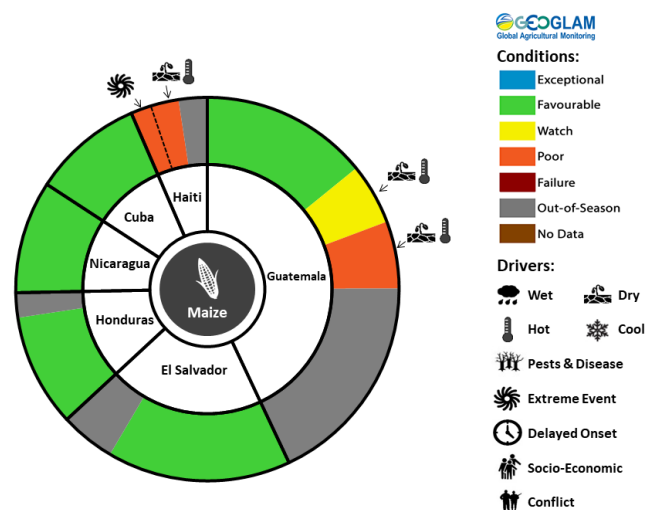
Source: UCSB Climate Hazards Center

Central America & Caribbean



Crop condition map synthesizing information as of August 28th. Crop conditions over the main growing areas are based on a combination of inputs including remotely sensed data, ground observations, field reports, national, and regional experts. **Conditions that are other than favourable are labeled on the map with their driver.**

In Central America, harvesting of *Primera* season maize and bean crops continued in **El Salvador, Guatemala, Honduras, and Nicaragua** under generally favourable conditions except in north and southeastern **Guatemala** where persistent dry and hot conditions may impact yields. Planting of *Segunda* season crops will commence in September in **Guatemala, Honduras, and Nicaragua**. In **Nicaragua**, vegetation conditions are near to above-average throughout the country, including in the central-northern region where crops in early development stages were previously impacted by moisture deficits. In central and southwestern **Guatemala**, precipitation in July and early August was near to slightly above-average. Conversely, recent below-average rains may lower crop yields in El Progreso, Zacapa, Chiquimula, Jutiapa, Jalapa, and Baja Verapaz departments and localized areas of Retalhuleu, Santa Rosa, and Suchitepéquez departments in the east as well as in the main producing Petén department in the north. Above-average temperatures have also reduced soil moisture in these regions, and subsistence farmers are the most affected. However, national production is not likely to be significantly affected. In **El Salvador**, crop conditions are generally favourable despite slightly below-average rainfall in the west. In **Honduras**, crop conditions are generally favourable except in localized areas of the main producing departments of El Paraiso and Olancho due to rainfall deficits. In the Caribbean, harvesting of main season cereals continued in **Haiti and Cuba** while planting and development of second season cereals continued for harvest from September. In **Haiti**, harvesting of main season maize and bean crops finalized in August under poor conditions. Despite above-average crop conditions observed during the spring, below-average rains during the critical April to May growing period as well as limited availability and access to agricultural inputs negatively impacted



For detailed description of the pie chart please see description box on Pg. 17.

crop yields. Harvesting of main season rice crops continued in August while planting of second season maize and bean crops is underway, and there is significant concern due to dry conditions that have reduced soil moisture as well as impacts from the August earthquake and heavy rainfall and flooding from Tropical Depression Grace. In the major rice producing department of Artibonite, below-average precipitation since July is likely to have negative consequences on crop yields. Additionally, on August 14th, a 7.2 magnitude earthquake hit the country, causing severe damage to infrastructure in Sud, Nippes, and Grand'Anse departments, particularly in the cities of Les Cayes, Jeremie, and Anse à Veaux. Minor floods and landslides have also been reported, and irrigation infrastructure has been damaged. On August 16th and 17th, Tropical Depression Grace hit the Sud-Est and Sud departments, triggering flooding in Jacmel, Les Cayes, and Marigot cities. Additional flooding and mudslides are likely to worsen the situation. In the Sud department, second season maize and bean crops are unlikely to recover as the impact on agricultural production has been detrimental. In **Cuba**, harvesting of main season maize crops continued under favourable conditions following good rainfall in the second half of June that restored soil moisture. Additionally, average precipitation in July and August generally benefitted crop yields, though precipitation was below-average in some areas. Second season rice crops continue to develop under favourable conditions for harvest from September.

Pie Chart Description: Each slice represents a country's share of total regional production. The proportion within each national slice is colored according to the crop conditions within a specific growing area; grey indicates that the respective area is out of season. Sections within each slide are weighted by the sub-national production statistics (5-year average) of the respective country. The section within each national slice also accounts for multiple cropping seasons (i.e. spring and winter wheat) and are a result of combining totals from multiple seasons to represent the total yearly national production. When conditions are other than favourable icons are added that provide information on the key climatic drivers affecting conditions.

Information on crop conditions in the main production and export countries can be found in the Crop Monitor for AMIS, published September 2nd, 2021.

Appendix

Crop Conditions:

Exceptional: Conditions are much better than average* at time of reporting. This label is only used during the grain-filling through harvest stages.

Favourable: Conditions range from slightly lower to slightly better than average* at reporting time.

Watch: Conditions are not far from average* but there is a potential risk to final production. The crop can still recover to average or near-average conditions if the ground situation improves. This label is only used during the planting-early vegetative and the vegetative-reproductive stages.

Poor: Crop conditions are well below-average. Crop yields are likely to be 10-25% below-average. This is used when crops are stunted and are not likely to recover, and impact on production is likely.

Failure: Crop conditions are extremely poor. Crop yields are likely to be 25% or more below-average.

Out of Season: Crops are not currently planted or in development during this time.

No Data: No reliable source of data is available at this time.

"Average" refers to the average conditions over the past 5 years.

Note: In areas where conflict is a driver of crop condition, crop conditions are compared to the pre-conflict average rather than the average conditions over the past 5 years. In areas where conflict is protracted and based on expert analysis on a case by case basis, crop conditions will be compared to the average conditions over the past five years.

Drivers:

These represent the key climatic drivers that are having an impact on crop condition status. They result in production impacts and can act as either positive or negative drivers of crop conditions.

Wet: Higher than average wetness.

Dry: Drier than average.

Hot: Hotter than average.

Cool: Cooler than average or risk of frost damage.

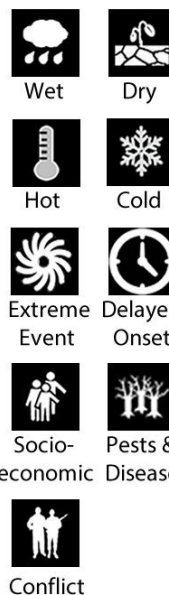
Extreme Events: This is a catch-all for all other climate risks (i.e. hurricane, typhoon, frost, hail, winterkill, wind damage, etc.)

Delayed-Onset: Late start of the season.

Pest & Disease: Destructive insects, birds, animals, or plant disease.

Socio-economic: Social or economic factors that impact crop conditions (i.e. policy changes, agricultural subsidies, government intervention, etc.)

Conflict: Armed conflict or civil unrest that is preventing the planting, working, or harvesting of the fields by the farmers.



Crop Season Nomenclature:

In countries that contain multiple cropping seasons for the same crop, the following charts identifies the national season name associated with each crop season within the Crop Monitor for Early Warning.

MENA				
Country	Crop	Season 1 Name	Season 2 Name	Season 3 Name
Egypt	Rice	Summer-planted	Nili season (Nile Flood)	

East Africa				
Country	Crop	Season 1 Name	Season 2 Name	Season 3 Name
Burundi	Maize	Season B	Season A	
Ethiopia	Maize	Meher Season (long rains)	Belg Season (short rains)	
Kenya	Maize	Long Rains	Short Rains	
Somalia	Maize	Gu Season	Deyr Season	
Somalia	Sorghum	Gu Season	Deyr Season	
Uganda	Maize	First Season	Second Season	
United Republic of Tanzania	Maize	Long Rains	Short Rains	
United Republic of Tanzania	Sorghum	Long Rains	Short Rains	

West Africa				
Country	Crop	Season 1 Name	Season 2 Name	Season 3 Name
Benin	Maize	Main season	Second season	
Cameroon	Maize	Main season	Second season	
Cote d'Ivoire	Maize	Main season	Second season	
Ghana	Maize	Main season	Second season	
Mauritania	Rice	Main season	Off-season	
Nigeria	Maize	Main season	Short-season	
Nigeria	Rice	Main season	Off-season	
Togo	Maize	Main season	Second season	

Southern Africa				
Country	Crop	Season 1 Name	Season 2 Name	Season 3 Name
Democratic Republic of the Congo	Maize	Main season	Second season	
Mozambique	Maize	Main season	Second season	

Southeast Asia				
Country	Crop	Season 1 Name	Season 2 Name	Season 3 Name
Bangladesh	Rice	Boro	Aman	
Cambodia	Rice	Wet season	Dry season	
Indonesia	Rice	Main season	Second season	
Lao People's Democratic Republic	Rice	Wet season	Dry season	
Myanmar	Rice	Wet season	Dry season	
Philippines	Rice	Wet season	Dry season	
Sri Lanka	Rice	Maha	Yala	
Thailand	Rice	Wet season	Dry season	
Viet Nam	Rice	Wet season (Autumn)	Dry season (Winter/Spring)	

Central & South Asia				
Country	Crop	Season 1 Name	Season 2 Name	Season 3 Name
Afghanistan	Wheat	Winter-planted	Spring-planted	
Kazakhstan	Wheat	Winter-planted	Spring-planted	
Kyrgyzstan	Wheat	Winter-planted	Spring-planted	
Tajikistan	Wheat	Winter-planted	Spring-planted	

Crop Season Nomenclature:

In countries that contain multiple cropping seasons for the same crop, the following charts identifies the national season name associated with each crop season within the Crop Monitor for Early Warning.

Central America & Caribbean				
Country	Crop	Season 1 Name	Season 2 Name	Season 3 Name
Cuba	Rice	Main season	Second season	
El Salvador	Beans	Primera	Postrera	
El Salvador	Maize	Primera	Segunda	
Guatemala	Beans	Primera	Postrera	Apante
Guatemala	Maize	Primera	Segunda	
Haiti	Maize	Main season	Second season	
Honduras	Beans	Primera	Postrera	
Honduras	Maize	Primera	Segunda	
Nicaragua	Beans	Primera	Postrera	Apante



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Contributing partners



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