

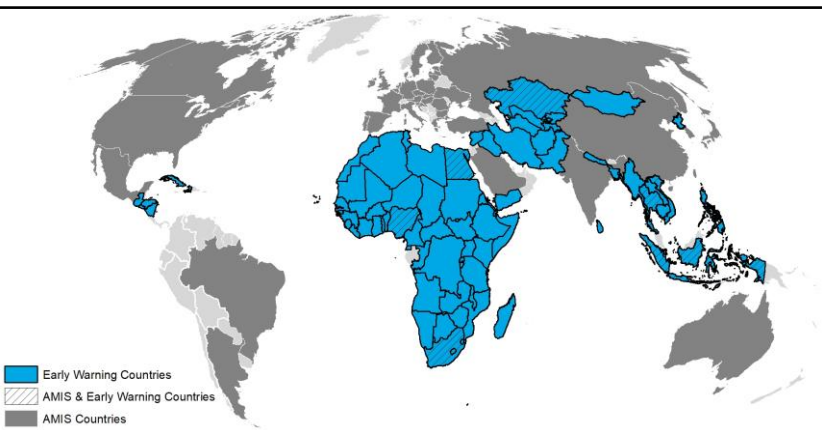


Crop Monitor

EARLY WARNING

Overview:

In **East Africa**, harvesting of main season cereals is underway in the north while planting and development of second season cereals continued in October in central and southern regions. There is concern in areas affected by flooding, desert locusts, dry conditions, and ongoing conflict and socio-economic challenges. In **West Africa**, harvesting of main season crops finalized in some areas while planting and development of second season crops is underway, and conditions are favourable except in areas affected by conflict. In the **Middle East** and **North Africa**, planting of winter wheat began in October under favourable conditions except in conflict-affected Syria and Libya. In Egypt, harvesting of summer-planted maize and rice crops continued under favourable conditions. In **Southern Africa**, harvesting of winter wheat is underway and will finalize in November while land preparation and planting of main season crops started in October, and overall conditions are favourable. In **Central and South Asia**, harvesting of spring wheat crops finalized in October with favourable end of season conditions, and planting of winter wheat continued under generally favourable conditions except in Afghanistan. In **Southeast Asia**, conditions are mostly favourable for the ongoing wet-season rice harvest in the north despite flooding and landslides from recent tropical cyclone activity. In Indonesia, harvesting of dry-season rice is nearing completion, and yields are favourable although slightly below the previous year. In **Central America** and the **Caribbean**, harvesting of *Postera/Segunda* season bean and maize crops is underway, and while good rainfall distribution benefitted crops, Hurricane Eta poses a high threat to crops as strong winds and heavy rains are expected across parts of the subregion.



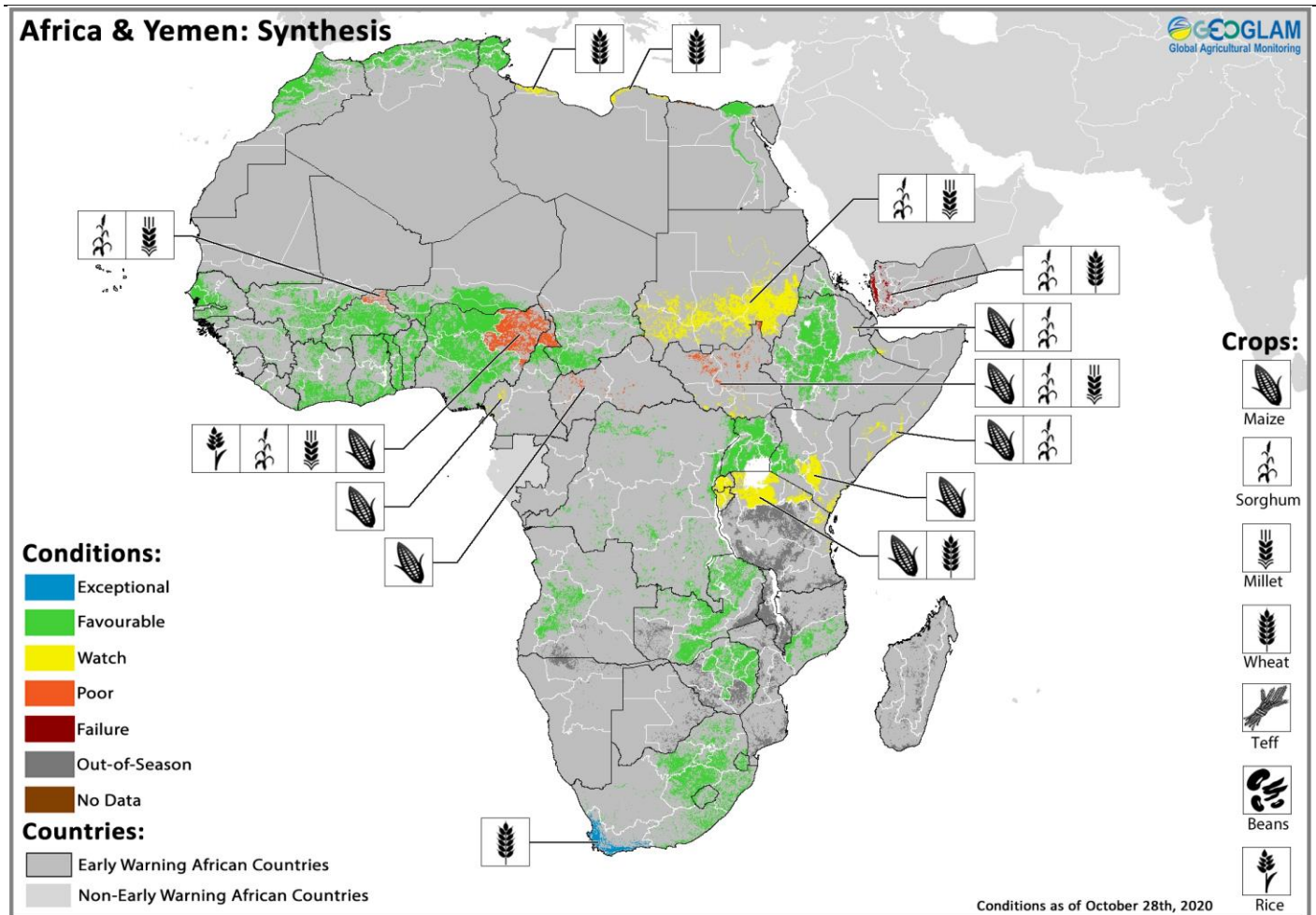
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GEOGLAM Crop Monitor for Early Warning

Crop Conditions at a Glance

based on best available information as of October 28th



Crop condition map synthesizing information for all Crop Monitor for Early Warning crops as of October 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: Harvesting of main season cereals is underway in the north, and there is concern in areas impacted by flooding, desert locusts, and ongoing conflict and socio-economic challenges. Planting and development of second season crops continued in October in central and southern regions, and there is concern due to below-average precipitation at the start of the October to December (OND) rainy season in some areas with forecast below-average rainfall expected to continue (See Seasonal Forecast Alert pg. 5 and Regional Outlook pg. 8).

WEST AFRICA: Harvesting of main season crops is complete in some areas and will complete across the Sahel in December, while planting and development of second season crops is underway. Crop prospects are generally favourable due to good seasonal rainfall except in areas affected by ongoing conflict.

MIDDLE EAST & NORTH AFRICA: Minor planting of winter wheat began in October, and conditions are favourable except in conflict-affected areas of Syria and Libya.

SOUTHERN AFRICA: Harvesting of winter wheat crops and land preparation and planting of main season cereals continued in October. Overall conditions are favourable, and forecast near-average rainfall for the December 2020 to February 2021 period

is likely to benefit crop development for the main season (See Regional Outlook pg. 12).

CENTRAL & SOUTH ASIA: Harvesting of spring wheat finalized in October, and favourable yields resulted. Planting of winter wheat continued in October under favourable conditions except in Afghanistan where erratic rainfall and forecast below-average precipitation is likely to impact planting and crop development (See Regional Outlook pg. 14).

SOUTHEAST ASIA: In the north, conditions are favourable for the wet-season rice harvest, and while several sequential tropical cyclones in late September and October triggered flooding and landslides, overall crop losses were minimal except in lowland areas of Myanmar and Cambodia. In Indonesia, harvesting of dry-season rice is nearing completion with slightly reduced yields, and sowing of wet-season rice is beginning under favourable conditions.

CENTRAL AMERICA & CARIBBEAN: Harvesting of *Postera/Segunda* season bean and maize crops is underway. Good rainfall distribution throughout the season has promoted normal crop development; however, Hurricane Eta poses a high threat to crops as damage from flooding and landslides are expected across parts of the subregion.

Global Climate Outlook: Global 30 day Subseasonal Rainfall Forecast Anomaly for November 2020

The 30-day Subseasonal (SubX) forecast indicates a likelihood of above-average rainfall over US mid-Atlantic, southern Mexico, Central America, Colombia, Venezuela, Guyana, Suriname, French Guiana, north to southeast Brazil, Gabon, southern Republic of Congo, Lesotho, southeastern South Africa, Bangladesh, eastern India, central Thailand, central Vietnam, Philippines, southern Indonesia, and southeast Australia. There is also a likelihood of below-average rainfall across southern US, southwest Columbia, western Ecuador, northwest Peru, southern Brazil, Uruguay, north and northeast Argentina, southern France, Italy, Bosnia and Herzegovina, Montenegro, Albania, Greece, eastern Iran, Guinea, Sierra Leone, southern DRC, eastern Angola, northern Zambia, northern and central Mozambique, southern China, central Japan, western DPRK, western Republic of Korea, and northern Papua New Guinea.

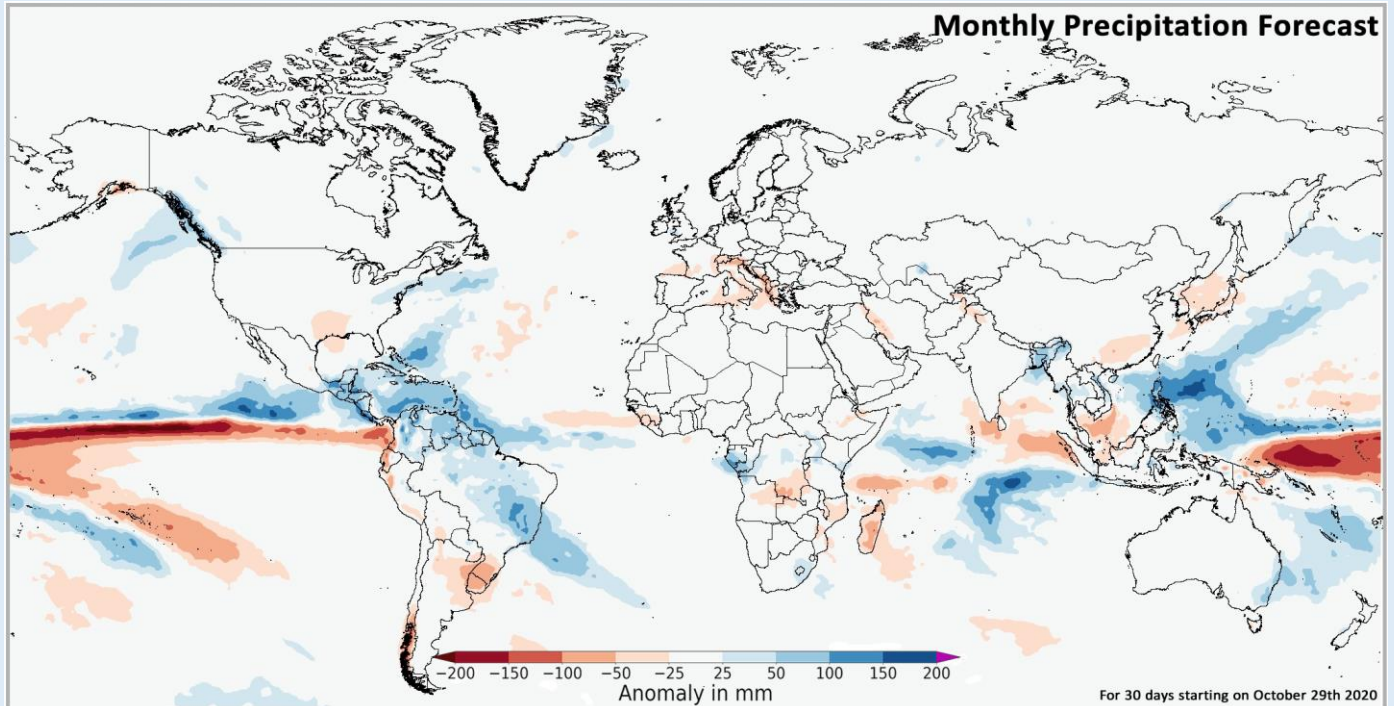


Figure 1. Multimodel mean subseasonal forecast of global rainfall anomaly for the 30-days starting from October 29th showing areas of above or below-average rainfall. The image shows the average of four Subseasonal Experiment (SubX) model forecasts from that day. The anomaly is based on the 1999 to 2016 model average. Skill assessments of SubX can be accessed [here](#).

Source: UCSB Climate Hazards Center

Climate Influences: La Niña is present and expected to continue through early 2021

The El Niño-Southern Oscillation (ENSO) is currently in the La Niña phase, with very cool ocean conditions in the eastern equatorial Pacific. [La Niña](#) conditions are expected to continue during November to February (~85% chance) and potentially through February to April (~60% chance).

La Niña conditions typically reduce November to February/May rainfall in East Africa, the southern United States, the northern Middle East, southern Central Asia, Afghanistan, Pakistan, and India. Southern Brazil, northern Argentina, eastern China, the Korean Peninsula, and southern Japan typically see reduced rainfall into January. La Niña conditions typically increase November to February/May rainfall in Southeast Asia, Southern Africa, southern Central America, northern South America, and in southernmost India and Sri Lanka. Australia and Indonesia typically see increased rainfall into December.

Source: UCSB Climate Hazards Center

Desert Locust Alert: Threat to cropping areas remains in the Horn of Africa and the Arabian Peninsula

The ongoing desert locust outbreak continues to cause concern across East Africa, particularly in eastern **Ethiopia** and **Somalia**. The invasion continues to be of high intensity in Afar, **Ethiopia** and Kassala, **Sudan** due to higher than usual rainfall received during the growing season which increased vegetation growth. In October, unusually heavy rainfall increased breeding in the Red Sea coastal areas of **Eritrea** and **Sudan**, and locusts are increasing along both sides of the southern Red Sea. In **Ethiopia** and **Somalia**, more swarms form, and a new generation of breeding has begun that could cause new swarms to form in December before potentially moving southwards to **Kenya**. Adult locusts continue to be reported in areas that received heavy rainfall, and there is a high risk of significant impact to crops and rangelands in northern regions. Desert locusts are predicted to return over parts of central **Somalia** and western **Sudan**. Southerly and south-easterly wind movement in southern and equatorial parts of the region poses a low risk of invasion for southern and equatorial areas and a high risk of invasion for northern countries. Forecast below-average rainfall for the October to December (OND) rainfall period across much of the Horn of Africa may reduce the availability of green vegetation and hinder desert locust reproduction and new swarm formation (See Seasonal Forecast Alert pg. 5 and Regional Outlook pg. 8); however, desert locust infestations are expected to continue to threaten crop production and pastureland across **Ethiopia** and **Somalia** through at least March 2021. The situation remains calm in West Africa and Southwest Asia.

East Africa Update

In **Kenya**, some small maturing swarms remain in Samburu county, and local breeding is underway in the northwest. The country may face a second wave of desert locusts in November and December due to an increased threat of swarm migration in October from Yemen, northeastern Ethiopia, and northern Somalia south to eastern Ethiopia and central Somalia. Locusts are projected to move from Samburu to Turkana and West Pokot, and climatic conditions are favourable for locust development in the northwest. In **Ethiopia**, swarms are present along the western and eastern edges of the northern Rift Valley, most swarms are moving south into the Rift Valley to Asela and east to the Harar Highlands and into the Ogaden, and a new generation of breeding has begun in Somali region where the epicentre of the locust population is shifting. Locusts are projected to move from Afar and Debubawi regions to Misraqawi, Mehak Elegnaw, Semien Mirabaw, and Wag Himra, and climatic conditions are favourable for locust development in the northwest. In northwest **Somalia**, immature and mature swarms are present, and mature adult groups and swarms are breeding in the northeast and central areas. Additional hatching and band formation are expected with new swarms forming in early December, and climatic conditions are favourable for locust development in the northwest. In **Eritrea**, immature swarms from northeastern Ethiopia arrived in the highlands and are likely to continue to the Red Sea coast. Hopper groups remain on the central Red Sea coastal plains. In **Sudan**, hopper bands and immature adult groups are present on the Red Sea coast. In the east, hopper bands that are fledging and forming immature adults are expected to move to the Red Sea coastal plains and join hopper bands that are already present. Locusts are projected to move from Kassala and Red Sea States to River Nile State. In **South Sudan**, locusts are projected to move from Eastern Equatoria and Central Equatorial States to Jonglei State, and climatic conditions are favourable for locust development in the south. In **Uganda**, locusts are projected to move from Kenya to eastern areas of Moroto, Kotido, Pader and Kigum, and climatic conditions are suitable for locust development in the east.

Arabian Peninsula Update

In **Yemen**, breeding is ongoing on the northern Red Sea coast where late instar hopper bands are forming immature adult groups. Mature adults are present on the central coast, and breeding has ended in the interior as swarms move to coastal areas along the Red Sea. In **Saudi Arabia**, hopper bands and adult groups are present on the Red Sea coast, and breeding is expected to continue.

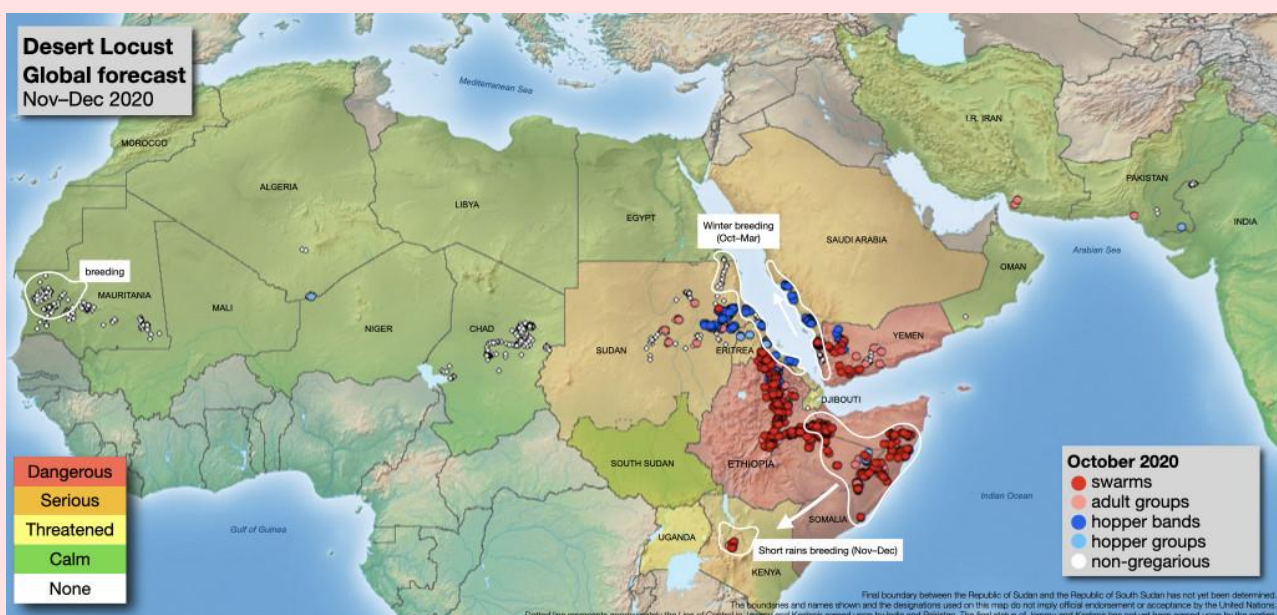


Figure 1. Desert Locust Global Forecast November– December 2020. Source: FAO DLIS

Seasonal Forecast Alert: Below-average observed and predicted October-to-December rains over East Africa are likely to be followed by below-average 2021 March-to-May rains

This alert examines potential outcomes for both the current October–November–December (OND) eastern East African “short” rainy season and the following March–April–May (MAM) “long” rains. Both of these seasons are strongly influenced by tropical Indo-Pacific sea surface temperature gradients. Cooler temperatures in the western Indian and eastern Pacific Ocean and warmer temperatures in the eastern Indian Ocean and western Pacific typically result in dry conditions over central and southeastern Kenya, central south-eastern Ethiopia, and Somalia. A very well-developed La Niña is [present](#), and the equatorial west Pacific is exceptionally warm. Over the past month, however, ocean temperatures in the western Indian Ocean have warmed, resulting in neutral Indian Ocean Dipole conditions.

Observed rainfall from October 1st through the 25th indicates a [poor start of the season over parts of eastern East Africa](#), especially in eastern Kenya, southern Somalia and eastern Oromia in Ethiopia. In eastern Kenya, most areas received less than 25 millimeters of rain. In the Bay and Shabelle growing regions of Somalia, however, rainfall totals were substantially higher, ranging from 25 to 100+ millimeters. Northern Somalia rainfall totals were very low (<25 mm) and below-normal. Weather forecasts for the next two weeks anticipate substantial (between -25 and -100 mm) rainfall deficits in central and southern Kenya but above-normal rainfall in much of southern and central Somalia and the Somali zone of Ethiopia. In southern Somalia, these rains could improve rainfall anomalies to near-average conditions, though the total amount of precipitation would still be low from a crop water satisfaction perspective. To complete the rest of the season (November 11th to December 31st), analog seasons can be used to generate estimates of future rainfall performance. Figure 1 presents these results, expressed as a percentage of the 1981–2019 long-term average. If the forecast rains occur in southern Ethiopia, central Somalia, and parts of southern Somalia, then normal-to-above normal conditions are likely in these areas. Much of the rest of eastern East Africa, however, is expected to be dry with rainfall totals of less than 75% or even 50% of normal.

The OND 2020 season, therefore, will likely experience some short-lived improvements in rangeland resources due to the forecast episodic rainfall events in late October into November over the eastern Horn. Overall, however, the quality of the cropping season is unlikely to significantly improve given that above-normal rains are often required in many dry areas to support crops. Subsequently, significantly reduced yields and/or crop failure are anticipated over marginal agricultural areas of the eastern Horn, apart from the highland areas.

For the MAM 2021 season, projections can be based on a set of eight analog seasons derived from forecasts of MAM sea surface temperatures. These were recent seasons that had La Niña-like Pacific ocean conditions. Outcomes for these seasons tend to range from very poor to poor over the eastern Horn of Africa, though they also include one extremely wet season (2018). Even during a La Niña event, as in 2018, weather anomalies can still generate very wet seasonal totals. Overall, however, most of the selected analogs tend to be associated with poor or below-normal rainfall. Figure 2 shows the number of times each location received below-normal MAM rains during the eight analog seasons. Regions with five or more below-normal outcomes can be considered as “likely” to have below-normal MAM rains, i.e. there is at least a 50% chance of below-normal rains. Therefore, the analogs indicate a substantial risk of a below-normal MAM season for eastern East Africa.

While there is uncertainty about the outcomes for both OND 2020 and MAM 2021, these assessments continue to underscore a substantial risk of consecutive poor OND and MAM outcomes for many areas of eastern East Africa.

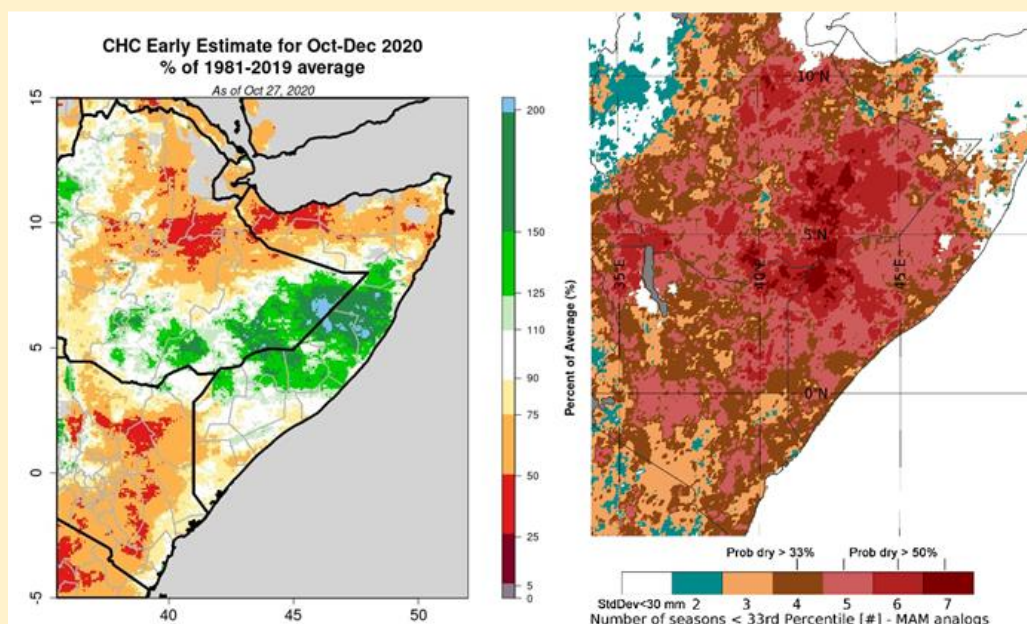
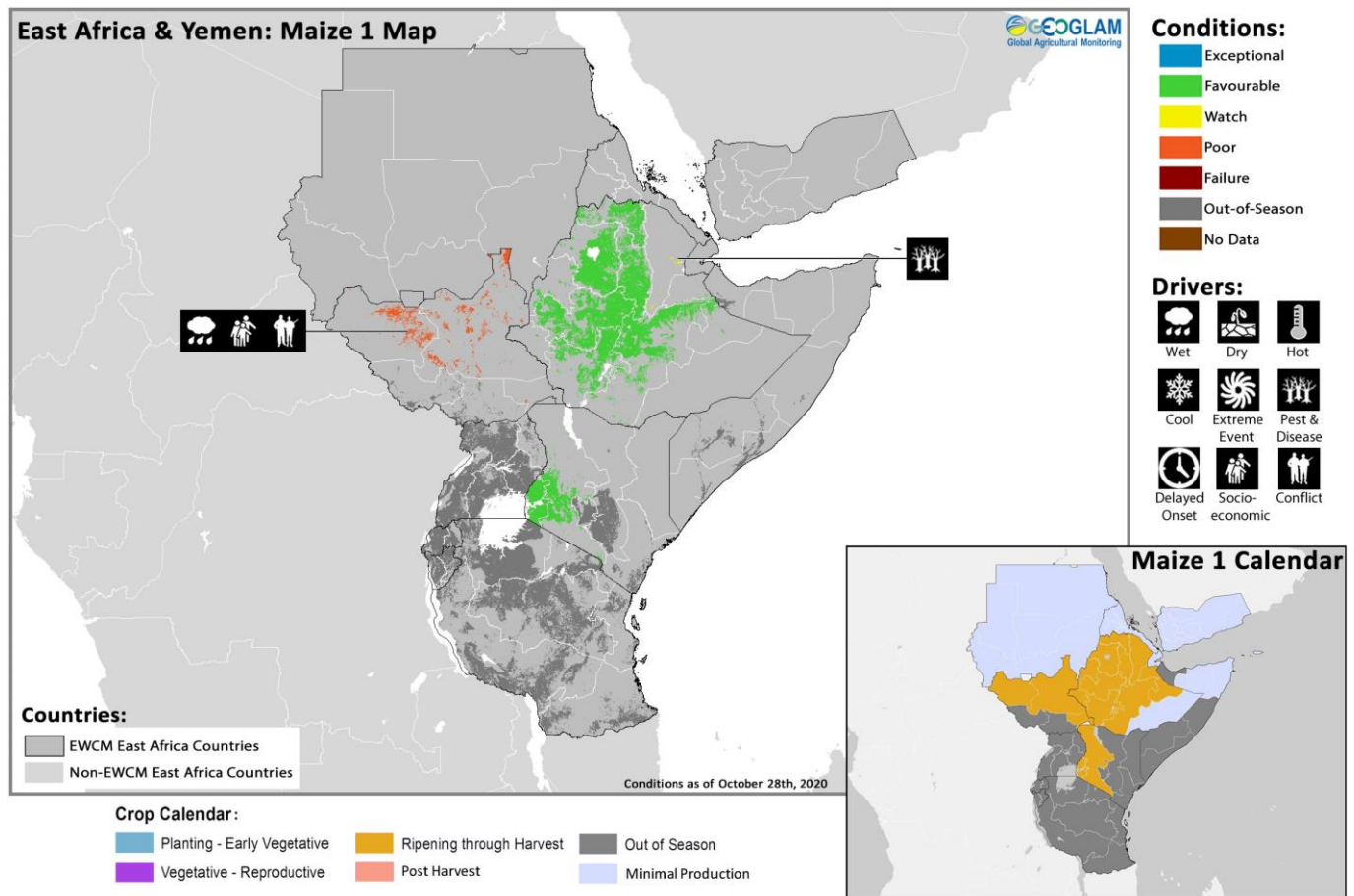


Figure 1. (left) OND percent of normal rainfall based on observations, weather forecasts, and selected analog seasons (1998, 2007, 2007, 2010, and 2016). (right) Counts of analog seasons with below-normal rainfall. Eight analogs were used (1999, 2000, 2001, 2008, 2011, 2012, 2017, and 2018), so 5 or more below-normal seasons indicates a 50% or greater chance of low precipitation. Four below-normal seasons indicates a ~37.5% chance. “Below-normal” is defined as within the bottom 33% of the 1981–2019 rainfall distribution. Note that areas with very low rainfall were excluded from this analysis.

Source: UCSB Climate Hazards Center

East Africa & Yemen



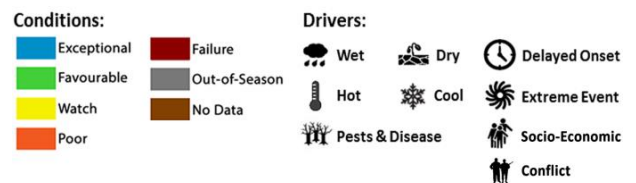
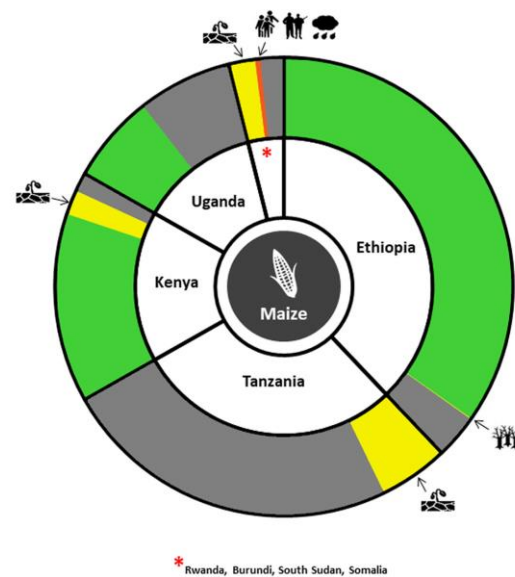
Crop condition map synthesizing Maize 1 conditions as of October 28th. Crop conditions over the main growing areas are based on a combination of inputs including remotely sensed data, ground observations, field reports, national, and regional experts. **Conditions that are other than favourable are labeled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

In northern East Africa, harvesting of main season cereal crops is underway in **Ethiopia, Kenya**, central and northern **South Sudan**, and **Yemen** while harvesting will begin next month in **Djibouti, Eritrea**, and **Sudan**. Heavy rainfall from June to September benefitted crop development but resulted in major landslides and flooding, particularly in **Ethiopia, Djibouti, Kenya, Somalia**, and **Uganda**, displacing 1.3 million people and destroying 70,200 hectares of cropland. In September, further above-average rains intensified flooding over **South Sudan, Sudan**, and **Ethiopia**, resulting in widespread displacement, damage, and livelihood losses. In particular, the overflow of the Nile River and its tributaries in **Sudan** caused widespread damages to agricultural croplands and livelihoods. In central and southern parts of the subregion, second season cereals are in vegetative to reproductive stage in southern **South Sudan** and **Uganda** while planting of crops, to be harvested from December, continued in **Burundi, Kenya, Rwanda, Somalia**, and the **United Republic of Tanzania**. There is concern due to below-average rains at the start to the October to December (OND) rainfall season in some areas, and forecasts indicate below-average rainfall is expected to continue with prolonged and frequent dry spells in some areas that could negatively impact yields (See Seasonal Forecast Alert pg. 5 and Regional Outlook pg. 8).

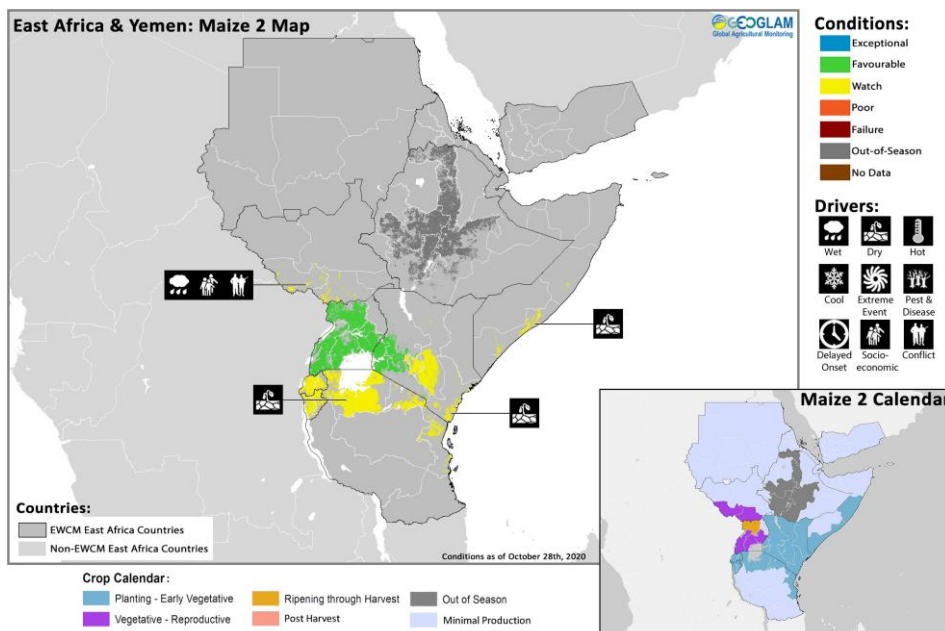
Northern East Africa & Yemen

In **Ethiopia**, harvesting of *Meher* season crops continued throughout the country, and overall conditions are favourable except in Afar region where desert locusts and dry conditions have impacted crop development. Previous locust migration to summer breeding areas in northern Afar, Amhara, and Tigray states in June now poses a significant risk for *Meher* season crop losses as these regions may become the epicentre of the infestation, which is expected to continue into March 2021 (See Desert Locust Alert pg. 4). Also, summer breeding in the Red Sea coastal areas and parts of eastern Sudan, northern Ethiopia, parts of Yemen, and northern Somalia poses a significant threat for re-invasion of the October to December seasonal crops. On October 20th, Addis Ababa Prime Minister Abiy Ahmed reported that a total of 420,000 hectares of land had been damaged by the desert locust infestations in 240 woredas; however, the impact on the country's agricultural production is less than five percent. Specifically, for cereals, a recent joint desert locust assessment with the Government indicated a total estimated loss of 356,286 metric tonnes and 200,000 hectares of cropland. In addition, between June and September, heavy and prolonged rains led to flooding and caused damages in Afar, Oromia, SNNP, Amhara, Gambella, Sidama, and Somali regional states, affecting more than 1.1 million people from 110 woredas and displacing 350,000 people. In Afar Region, over 46,000 hectares of cropland were destroyed by floods. In **Eritrea**, main season sorghum and winter wheat crops are developing under favourable conditions to be harvested from November. In **Sudan**, main season millet and

sorghum crops are in vegetative to reproductive stage to be harvested from November, planting of winter wheat will begin next month, and there is concern as heavy rainfall has resulted in widespread flooding, displacement, and crop damage throughout the country. In early October, rains began to subside, and floodwaters began to recede after heavy rainfall from mid-July through mid-September caused widespread flooding and displacement, especially in riverine areas along the White Nile, Blue Nile, and Nile Rivers. Gedarif, Blue Nile, and Sennar states are estimated to be the most affected in terms of damage to cultivated crops. Seeds, tools, equipment, machinery, and agriculture and irrigation-related infrastructure were also lost or damaged in the floods, and many farmers risk missing the start of the upcoming 2020 winter agricultural season beginning in October and the 2021 summer agricultural season beginning in March. Also, the weakening of the Sudanese pound continues to put upward pressure on the price of fuel and agricultural inputs, inflating production and transportation costs. In **South Sudan**, harvesting of main season cereals is underway in central and northern unimodal rainfall areas while in southern bimodal rainfall areas, second season maize and sorghum crops to be harvested from December are in vegetative to reproductive stage, and there is significant concern due to flooding as well as ongoing socio-economic challenges and conflict. Since July, UN OCHA estimates 800,000 people have been affected by flooding along areas of the White Nile with 368,000 people currently displaced. Thirty-seven of the country's 78 counties have large swaths of land underwater as of October with most flood-affected people unable to tend to their lands. In Jonglei State, floods damaged 27,000 hectares constituting half of cultivated land. Many areas have been flooded since July, and river levels are continuing to rise. In **Yemen**, harvesting of spring wheat finalized in October, harvest of sorghum will finalize in November, and yields are estimated to be significantly below-average due to the combined impacts from flooding throughout the season, particularly on the western coast, as well as desert locusts, ongoing conflict, socio-economic challenges that prevented farmers from accessing inputs, and COVID-19 restrictions.



For detailed description of the pie chart please see description box on pg. 19.



Crop condition map synthesizing Maize 2 conditions as of October 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.**

Southern East Africa

In **Somalia**, planting of *Deyr* season maize and sorghum crops to be harvested from mid-December has been hindered and delayed as "Deyr" rains had a late-onset and a poor performance over most southern key-cropping areas. By contrast, in central regions, cumulative rainfall is average to above-average, and the *Deyr* season has commenced with light, average rains. While moderate to heavy rainfall forecast through the start of November in southern and central regions is likely to improve vegetation conditions, forecasts indicate northern areas are expected to receive little to no rainfall (See Seasonal Forecast Alert pg. 5 and Regional Outlook pg. 8). In **Uganda**, harvesting of main season millet finalized in October in Northern and Nile regions, and average yields resulted despite localized flood losses in the west. Throughout the country, second season

crops for harvest from December are developing under favourable conditions. In Central, Rift Valley, and Western provinces in **Kenya**, conditions are favourable for the harvesting of *Long Rains* maize crops which began in October, and maize production is expected to be 10 to 15 percent above-average. Since mid-March, water levels of Lake Turkana have been on the rise, and as of October, water levels reached unprecedented levels from 500m to 800m, displacing 25,000 people along the shores in Kerio, Kiangatotha, Kalokol,

and Lake Zone wards and disrupting livelihoods. Months of heavy downpours have also caused rivers around lakes Baringo and Bogoria to break their banks, displacing an estimated 20,000 people in eastern Baringo county. Planting of *Short Rains* crops started this month across the country, and there is some concern due to a poor start to the rains and forecast below-average rainfall for the October to December period (See Seasonal Forecast Alert pg. 5 and Regional Outlook pg. 8). However, planting activities in the Rift Valley and western regions were not impacted due to sufficient soil moisture availability and recent precipitation. In **Burundi** and **Rwanda**, planting of *Season A* crops continued in October to be harvested in January, and there is concern as the September to November rains have had a delayed onset and erratic start, impacting planting activities. In northern bimodal areas of the **United Republic of Tanzania**, planting of *Vuli* season maize crops to be harvested from mid-December continued in October, and there is concern as dry conditions are impacting planting activities.

Regional Outlook: Below-normal rainfall expected to continue in parts of Kenya and Tanzania while normal rainfall expected in Somalia and Ethiopia in November

From October 1st to October 25th, below-average rainfall was observed in eastern Kenya, eastern Ethiopia, southwestern and northwestern Somalia, Burundi, southern Rwanda, and parts of DRC. Above-average rainfall was observed in western Kenya, northern Uganda, central Somalia, and central coast Tanzania (Figure 1-left).

The 16-day forecast from October 26th indicates wetter-than-average conditions in some eastern and western areas and below-average conditions in central and southern Kenya and in northern Tanzania. The low forecast amounts in these areas could result in season-to-date rainfall totals that are less than 80 percent and less than 50 percent of average (Figure 1-middle). In Somalia and southern Ethiopia, the forecast wet period could bring seasonal totals to normal or above-normal amounts. However, lasting positive impacts on crop and rangeland resources in some of these areas may be limited by earlier dry conditions. Western Kenya and central coast Tanzania could be seeing above-average early season rainfall totals as of November 10th. SubX forecasts for mid to late November indicate average to above-average rainfall in central-western Tanzania. SubX models show less agreement in other areas.

Concern remains at a high level for poor rainfall performance in the October to December season in much of the eastern Horn and for negative impacts to agriculture and agropastoral activities. The [East Africa Forecast Alert](#) discusses the current outlook for the eastern Horn. According to the October NMME forecast for November 2020 to January 2021, eastern Kenya and southern Somalia are likely to see overall below-normal rainfall for the remainder of the season (Figure 1-right). The NMME also shows increased chances for below-normal November to January rainfall in much of the equatorial region and increased chances for above-normal rainfall in southern Tanzania.

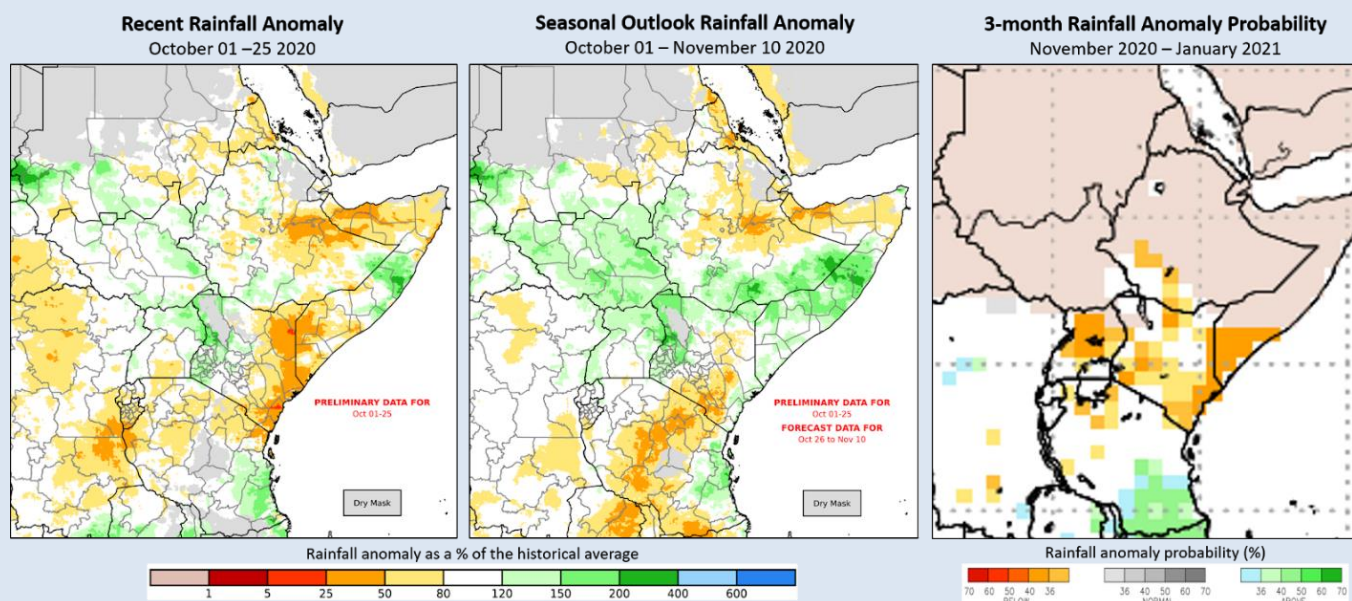
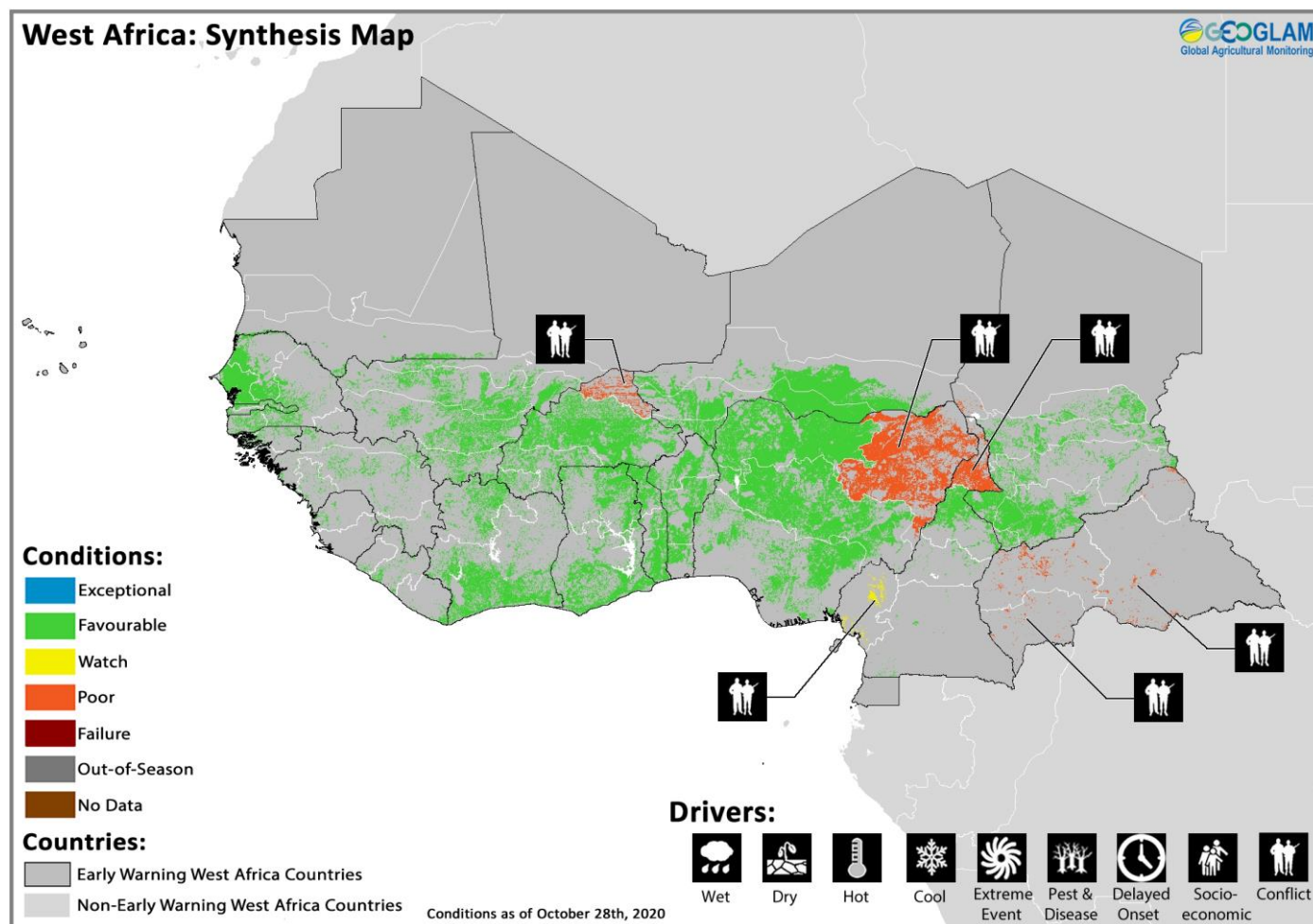


Figure 1. Estimated and forecasted rainfall since October 1st, and a 3-month probability forecast. The left and middle panels are UCSB Climate Hazards Center Early Estimates. These maps compare 2020 rainfall amounts to the 1981–2019 CHIRPS average. The left panel shows the estimated percent-of-average anomaly from October 1st to 25th. The middle panel shows the percent-of-average anomaly from October 1st to November 10th if the 16-day unbiased GEFS forecast from October 26th materializes. On the right is the 3-month NMME experimental probabilistic forecast for November 2020 to January 2021, based on October 2020 initial conditions. The forecast probability is calculated as the percentage of all 79 NMME ensemble members that fall in a given tercile (above/below/near normal). White color indicates there is no dominant category across the model forecasts. NMME image from https://www.cpc.ncep.noaa.gov/products/international/nmme/nmme_seasonal.shtml
Source: UCSB Climate Hazards Center.

West Africa

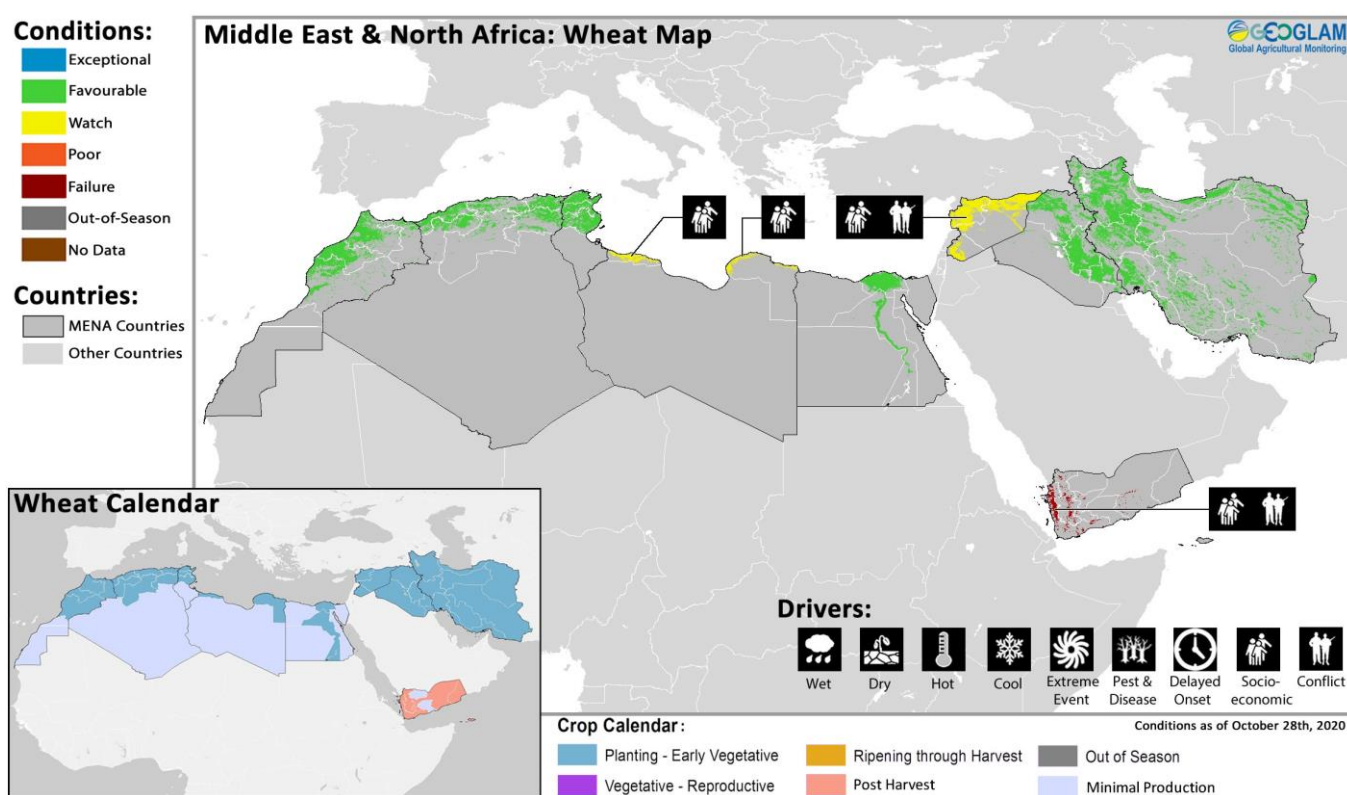


Crop condition map synthesizing information as of October 28th. Crop conditions over the main growing areas are based on a combination of inputs including remotely sensed data, ground observations, field reports, national, and regional experts. **Crops that are in other than favourable conditions are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

In West Africa, harvesting of some main season crops is now complete in northern **Cote d'Ivoire**, **Ghana**, northern **Togo**, northern **Benin**, the Far North region of **Cameroon**, southern **Niger**, and southern **Chad**. Elsewhere, harvesting of main season crops is ongoing in **Guinea**, southern **Mali**, **Burkina Faso**, northern **Cameroon**, western and southern **Chad**, the **Central African Republic**, **Senegal**, **Gambia**, south and eastern **Mauritania**, **Guinea-Bissau**, **Sierra Leone**, **Liberia**, **Togo**, northern **Nigeria**, **Cote d'Ivoire**, northern **Ghana**, north and central **Benin**, and southern **Niger**. Harvesting of second season crops began in Adamaua in **Cameroon** and northern **Nigeria** while planting and development continues in **Benin**, southern **Cote d'Ivoire**, southern **Ghana**, southern **Nigeria**, **Togo**, southern **Mali**, and southern **Mauritania** to be harvested from November. Despite dry conditions in **Gambia** and **Senegal**, agroclimatic conditions and crop prospects are generally favourable throughout the subregion except where conflict continues to impact agricultural activities, including the Far North and southwest regions in **Cameroon**, Lac region in **Chad**, the **Central African Republic**, northeast **Burkina Faso**, and northeast **Nigeria**. From July to September, heavy rains in **Burkina Faso**, **Cameroon**, **Chad**, **Ghana**, **Mali**, **Niger**, northwestern and northcentral **Nigeria**, and **Senegal** resulted in flooding that damaged crops and inundated farmland; however, yield prospects remain favourable. Also, while conditions were drier-than-average along the Gulf of Guinea countries in September, moderate to heavy rainfall was recorded over **Liberia**, **Sierra Leone**, **Cote d'Ivoire**, **Ghana**, **Togo**, **Benin**, and **Guinea** in October, and conditions are favourable. COVID-19 related restrictive measures implemented to contain the pandemic continue to impact access to inputs and labour across much of the region which may curtail yield prospects in some areas. In **Mali**, localized outbreaks of Fall Armyworm (FAW) and desert locusts were reported across some areas of the country. While localized areas are likely to experience production shortfalls, overall 2020 cereal production is estimated to be above-average. In **Niger**, production of 2020 main season cereals is expected to be slightly above-average due to abundant seasonal precipitation amounts throughout the season in most parts of the country and despite localized flooding and crop losses in August and September. Conflict continues to disrupt agricultural activities in Diffa, Tahoua, and Tillabery regions. Localized outbreaks of FAW and desert locusts were reported in several regions, and stemborers affected crops in Bosso, Guidan Roudmji, and Tibiri districts. In **Chad**, while abundant rains were beneficial to crop yields, 2020 cereal production prospects are only near-average due to long dry periods in August as well as localized flooding in July and August in some areas. In **Togo**, overall 2020 cereal production is estimated to be slightly above-average as the rains were favourable for crop development. However, flooding in northern districts of Dankpen, Bassar, Oti, and Oti-Sud in early

September and further riverine flooding in October curbed production prospects in worst affected areas. Localized FAW attacks also occurred in several areas of the country. In **Nigeria**, 2020 cereal crop production is estimated at slightly above the previous five-year average due to above-average cumulative precipitation amounts since the beginning of the season and despite impacts from conflict, flooding in the northwest and northcentral regions, and COVID-19 restrictions which affected seed processing and transportation, particularly in Kano, Nigeria's major seeds producer. Rainfall has been mostly above-average from late April, resulting in flooding in some areas, particularly along the Benue and Niger rivers in late August and early September which resulted in localized crop damage but generally benefitted vegetation conditions. Severe flooding since August has affected over half a million people, particularly in departments of Agadez, Dosso, Maradi, Tahoua, and Tillabéri. While water withdrawal began in October, a large proportion of land remains flooded. The heavy rainfall resulted in loss of agricultural infrastructure and equipment and localized damage to croplands, especially in rainfed production areas near the Niger River. In the northeast, ongoing armed conflict continues to hamper agricultural production, and insecurity and movement restriction have limited the ability of farmers to plant crops in many areas of the Lake Chad region. Also, localized FAW was present in October, particularly in Adamawa State. While seasonal rainfall is favourable in the **Central African Republic**, resurgence of violence by armed groups in the northwest and southeast is disrupting agricultural activities and is likely to result in a significant decrease in crop production despite favourable seasonal rainfall.

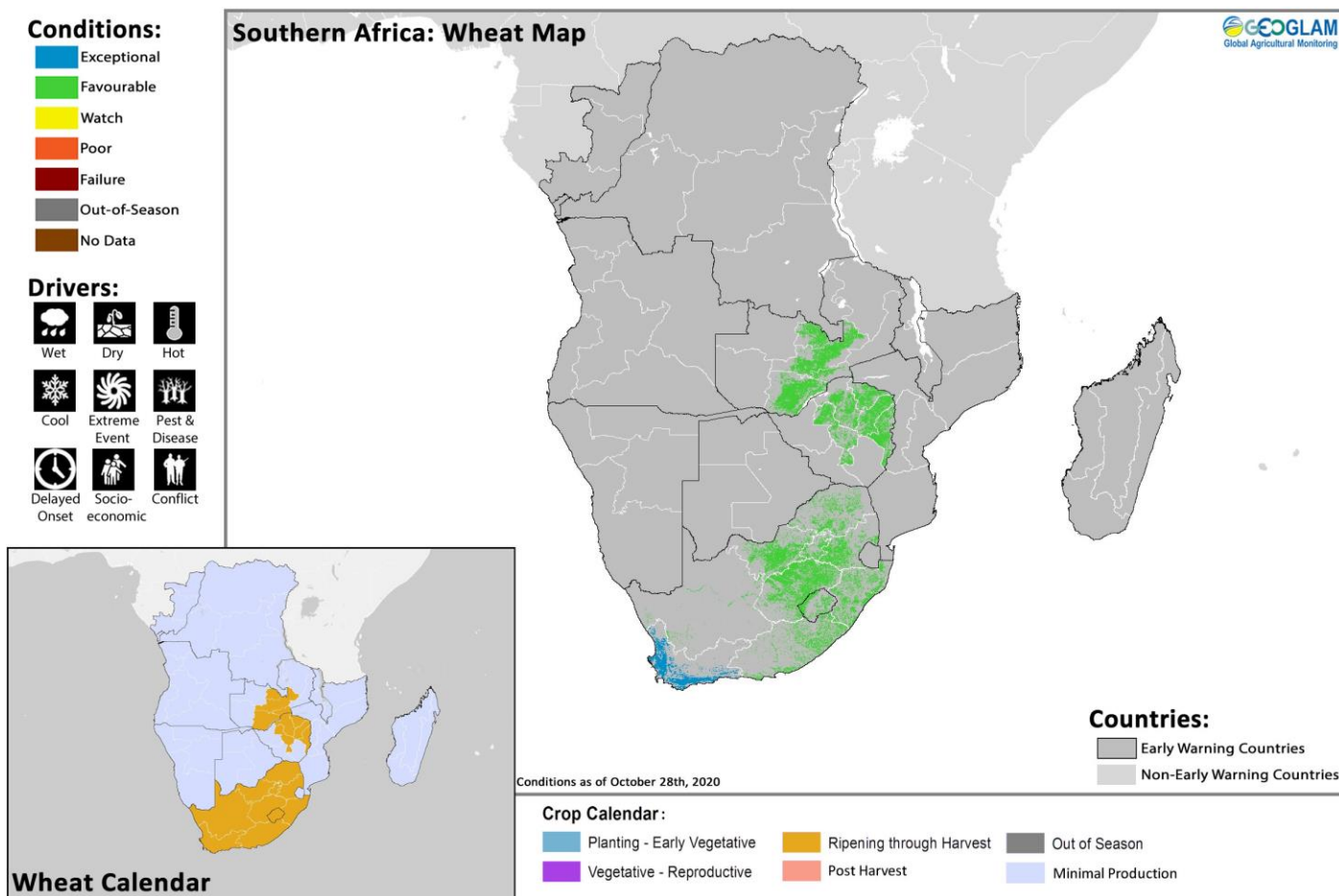
Middle East & North Africa



Crop condition map synthesizing information as of October 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 Middle East and North Africa, planting of winter wheat began in October, though the majority of planting will take place in November and December throughout the subregion depending on rainfall and soil moisture availability. Overall conditions are favourable except in **Syria** and **Libya** where socio-economic challenges and lingering conflict continue to impact agricultural activities. In **Tunisia**, the Government estimates 1.33 million hectares of winter wheat and barley crops will be planted in 2020 for harvest from May 2021, an increase from one million hectares planted in 2019 as low rainfall delayed plantings. In **Libya**, military operations, particularly around Tripoli, are limiting farmers' access to their fields for the start of winter wheat planting, and power cuts, insecurity, and high cost of inputs continue to constrain their ability to produce. In **Egypt**, harvesting of summer-planted rice crops finalized in October. Favourable production resulted as final planted area exceeded the government-approved area, and weather conditions throughout the season supported crop development. Harvesting of main season maize is underway to be finalized in November, *Nili* season (Nile Flood) rice crops are in vegetative to reproductive stage to be harvested from December, and overall conditions are favourable.

Southern Africa



Crop condition map synthesizing information as of October 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, conditions are favourable for the ongoing harvest of 2020 winter wheat crops in **Lesotho, South Africa, Zambia,** and **Zimbabwe** to be finalized in November. In **South Africa**, above-normal and well-distributed rainfall over the winter rainfall region is supporting above-normal production of winter wheat. In **Zambia**, conditions remain favourable for the harvesting of winter wheat with an average crop expected despite slightly below-average planted area as a result of load shedding. In **Zimbabwe**, good production of winter wheat is expected despite below-average water source availability.

Land preparation and planting of 2021 main season cereals started in October across much of the region under favourable conditions. Summer rains have commenced in the northern and southeastern parts of the subregion, providing enhanced soil moisture levels and favourable planting conditions. Periods of intense rainfall, however, also caused flooding in coastal areas of **Mozambique** due to the overflow of the Zambezi river. Forecast near average-rainfall for the December 2020 to February 2021 period is likely to benefit planting activities and crop development (See Regional Outlook pg. 12), particularly in **Zimbabwe** compared to the reduced levels of the previous two years. However, outbreaks of African migratory locusts have not been fully contained in **Botswana, Namibia, Zambia,** and **Zimbabwe** and pose a risk to crop production. Also, in **Zimbabwe**, reduced income levels, high inflation rates, and COVID-19 related transportation restrictions in September negatively affected access to agricultural inputs which could limit the planted area and adversely affect yields, though the Government is implementing programmes to support farmers' access to inputs. In **South Africa**, planting of main season maize crops began in eastern regions to be harvested from March. Maize planted area is expected to increase by five percent from the previous year due to good export prospects and favourable weather outlooks. Weather forecasts suggest a probability of above-average rainfall between November 2020 and January 2021 (See Regional Outlook pg. 12). In northern **Democratic Republic of Congo**, harvesting of main season maize began in the north and west under favourable conditions due to consistent rainfall throughout the season. Elsewhere, planting and development of main season cereals continued in October, and conditions are favourable as consistent rainfall across much of the region encouraged planting and improved soil and vegetation conditions. Furthermore, good rains are forecast to continue and are expected to support a favourable production outlook (See Regional Outlook pg. 12). However, in early October, heavy rainfall resulted in the overflow of the Mutahyo River and flooding in the eastern North Kivu Province in the city of Sake. Flooding is reported to have inundated crop fields in Goma and parts of South Kivu.

Regional Outlook: Mixed rainfall prospects through November with increased chances of above-normal December to February rainfall

The 2020-2021 main rainfall season is off to a slow start in much of the Southern Africa region. Recent estimates and the two-week forecast indicate mainly near-average to slightly below-average rainfall amounts for October 1st to November 10th (Figure 1-left). According to this outlook, moderate deficits may develop in some southeastern and northwestern areas, including in eastern DRC, northern Angola, southeastern South Africa, and central Madagascar. The latest forecasts from SubX indicate a delayed onset of seasonal rainfall in Madagascar and eastern Mozambique associated with forecast below-average rainfall through November.

In early October 2020, seasonal forecasts indicated increased chances of above-normal rainfall during the typical wettest period of the growing season, December to February (DJF), in some central and southern areas of the region. More recently, these models have lowered the chances for above-normal DJF 2020-2021 rainfall in many of these areas. The latest available NMME forecast indicates that near-average DJF rainfall is expected for much of the region and that there are some areas where above-normal and below-normal rains may develop (Figure 1-right). Some additional NMME forecast changes are increased chances for above-normal DJF rainfall in northern Mozambique and for below-normal DJF rainfall in western Namibia, southwestern Angola, and southwestern Mozambique. Ongoing monitoring of forecasts and observations will be required for identifying atypical conditions.

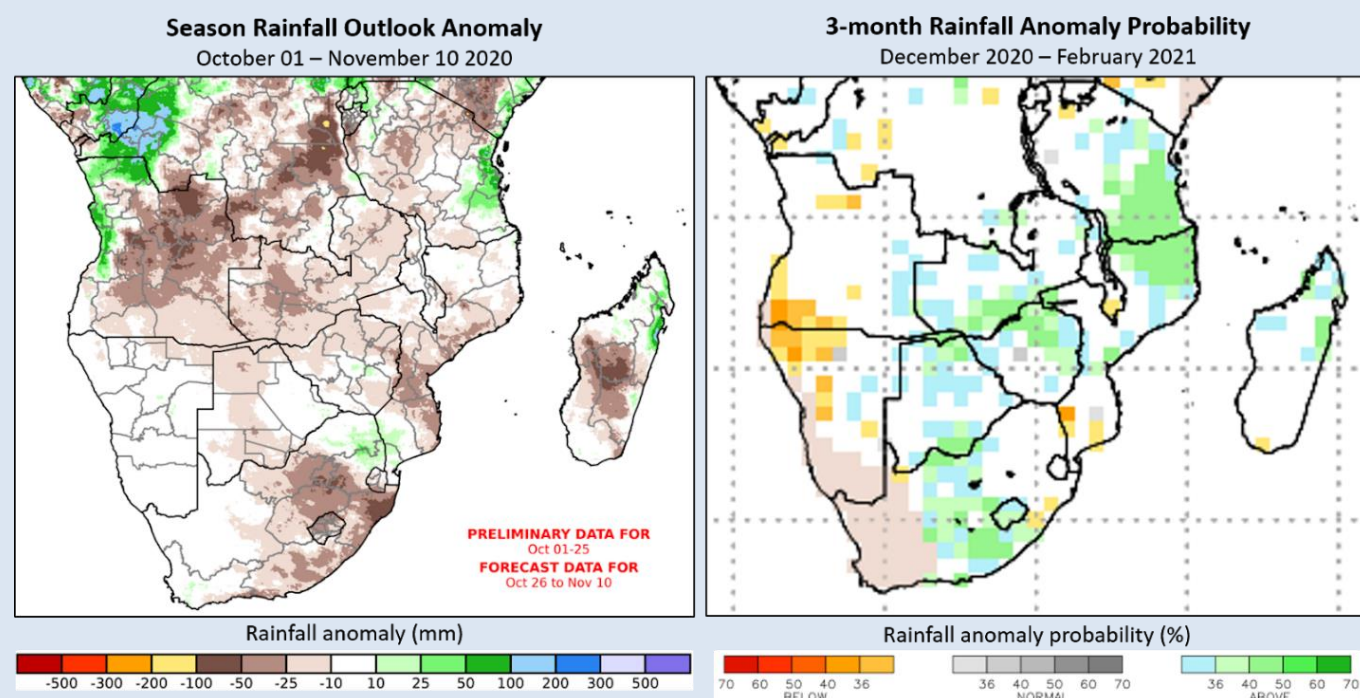
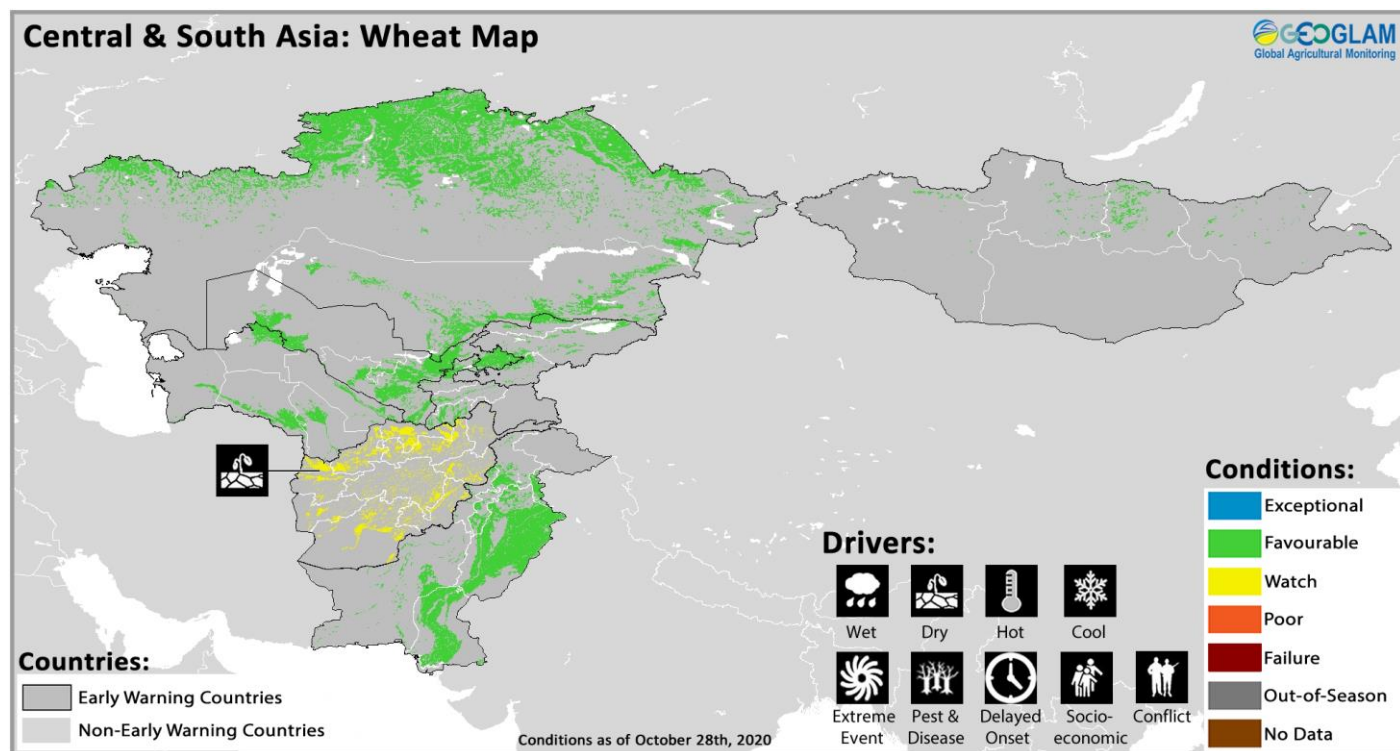


Figure 1. Estimated and forecasted rainfall since October 1st, and a 3-month probability forecast. The left panel is a UCSB Climate Hazards Center Early Estimate, which compares 2020 rainfall amounts to the 1981-2019 CHIRPS average. The map shows the difference from average for October 1st to November 10th if the 16-day unbiased GEFS forecast from October 26th materializes. On the right is the 3-month NMME experimental probabilistic forecast for December 2020 to February 2021, based on October 2020 initial conditions. The forecast probability is calculated as the percentage of all 79 NMME ensemble members that fall in a given tercile (above/below/near normal). White color indicates there is no dominant category across the model forecasts. NMME image from https://www.cpc.ncep.noaa.gov/products/international/nmme/nmme_seasonal.shtml

Source: UCSB Climate Hazards Center.

Central & South Asia



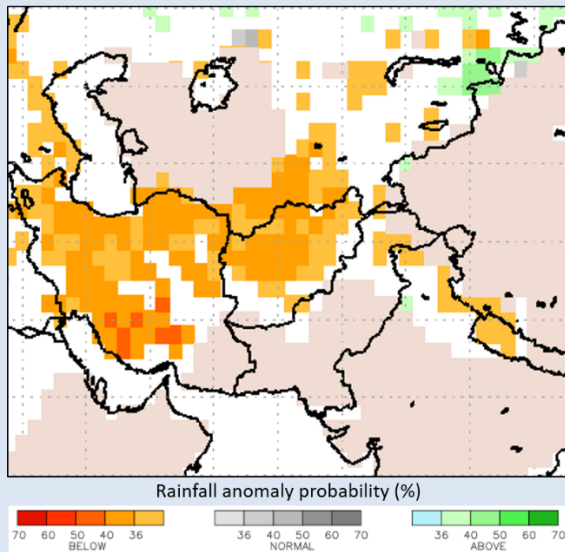
Crop condition map synthesizing information as of October 28th. Crop conditions over the main growing areas are based on a combination of inputs including remotely sensed data, ground observations, field reports, national, and regional experts. **Crops that are in other than favourable conditions are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

Harvesting of spring wheat and barley finalized in October in **Afghanistan, Kazakhstan, Kyrgyzstan, Mongolia, Tajikistan, Turkmenistan, and Uzbekistan**. End of season conditions were favourable throughout the subregion, and in **Tajikistan, Turkmenistan, and Kyrgyzstan**, outputs are estimated to be around the five-year average owing to favourable weather conditions throughout the season. Planting of winter wheat for harvest in 2021 continued in **Kazakhstan, Kyrgyzstan, Turkmenistan and Uzbekistan** and began in **Afghanistan, Pakistan, and Tajikistan**, and overall conditions are favourable except in **Afghanistan** where erratic rainfall is impacting planting activities. Despite weather conditions being drier than the long-term average in **Turkmenistan and Uzbekistan**, there is little concern as seasonal rains typically start towards the end of October.

In **Turkmenistan**, 2020 aggregate wheat output is estimated at 1.4 million tonnes, well below the 2019 high level as a result of reduced plantings in favour of more profitable cotton cultivation but still six percent above the five-year average due to the use of high yielding seeds and favourable weather conditions. Planting of winter wheat is ongoing under slightly drier than average conditions and is expected to be completed by mid-November. In **Kazakhstan**, despite large plantings of spring wheat, drier and warmer than average weather conditions in May and June followed by high temperatures in July and rainfall deficits and irregular water supply during the summer months impacted crop development in the main producing northern areas. While favourable conditions in the north-central region of Akmolinskaya oblast partly offset yield losses, prolonged rainfall in late August and early September slowed harvesting activities and is likely to have had negative impacts on grain quality. As a result, yields are expected to be five percent below the five-year average. In the south and southeast where the majority of winter cereals are produced, warm temperatures were favourable for the land preparation and sowing of winter wheat. In **Afghanistan**, winter wheat planting started in October with light to moderate snow in the high elevations of the north and northeast. Dry conditions developed thereafter and remained throughout the country, which may shorten the planting-window and adversely impact snow accumulation during this period. Forecasts indicate dry conditions are likely to persist into the first half of November, and La Niña conditions in the northern hemisphere are likely to result in below-average precipitation and above-average temperatures through March 2021 (See Regional Outlook pg. 14). Dry conditions may also adversely affect snow accumulation, which is an important source of water for both winter and spring cereals. In **Mongolia**, harvest is complete for spring wheat and barley crops, and final production was favourable with near-record wheat output. In **Pakistan**, harvesting of main season rice began in August under favourable conditions. From early August, heavy monsoon rainfall resulted in widespread flooding in several areas of the country. In September, heavy rainfall caused several rivers to overflow, including the Indus, resulting in flooding, particularly in Mirpurkhas and Umerkot districts in Sindh Province, and damaging 400,000 hectares of crops in worst-affected areas. However, the overall impact on main season rice crops was limited, and crops largely benefitted from the above-average rains. In addition, the above-average 2020 monsoon season has resulted in ample irrigation water availability for winter wheat, and record wheat prices are expected to prompt an increase in planted area.

Regional Outlook: Drier than normal start to the 2020-2021 rainfall season forecast in Central Asia and northern South Asia

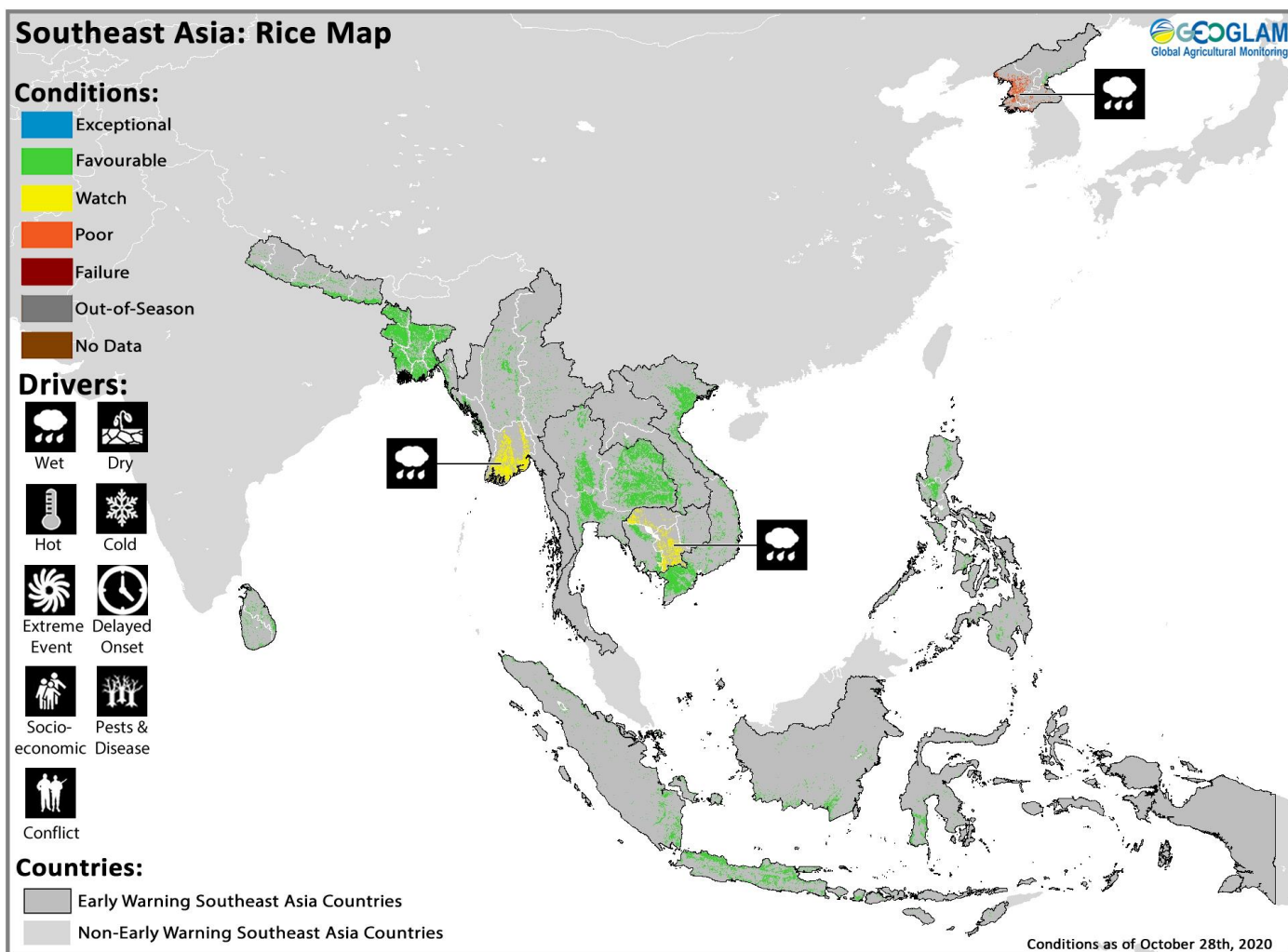
3-month Rainfall Anomaly Probability
November 2020 – January 2021



The start of the 2020-2021 winter wheat season is likely to be drier than normal in Central Asia and northern areas of Southern Asia. According to the October 2020 forecast for November to January rainfall, there is a 33 percent to a 50 percent chance for below-normal rainfall in Iran, Afghanistan, eastern Azerbaijan, southern Turkmenistan, southern Uzbekistan, and western Tajikistan (Figure 1). Longer range forecasts show increased chances of below-average precipitation and above-average temperatures in the region through March 2021, which [could have consequences for snowpack and water availability](#) for winter and spring cereals.

Figure 1. (left) A 3-month NMME probabilistic forecast for November 2020 to January 2021, based on October 2020 conditions. The forecast probability is calculated as the percentage of all 79 NMME ensemble members that fall in a given tercile (above/below/near normal). White color indicates there is no dominant category across the model forecasts. NMME image from https://www.cpc.ncep.noaa.gov/products/international/nmme/nmme_seasonal.shtml. Source: UCSB Climate Hazards Center.

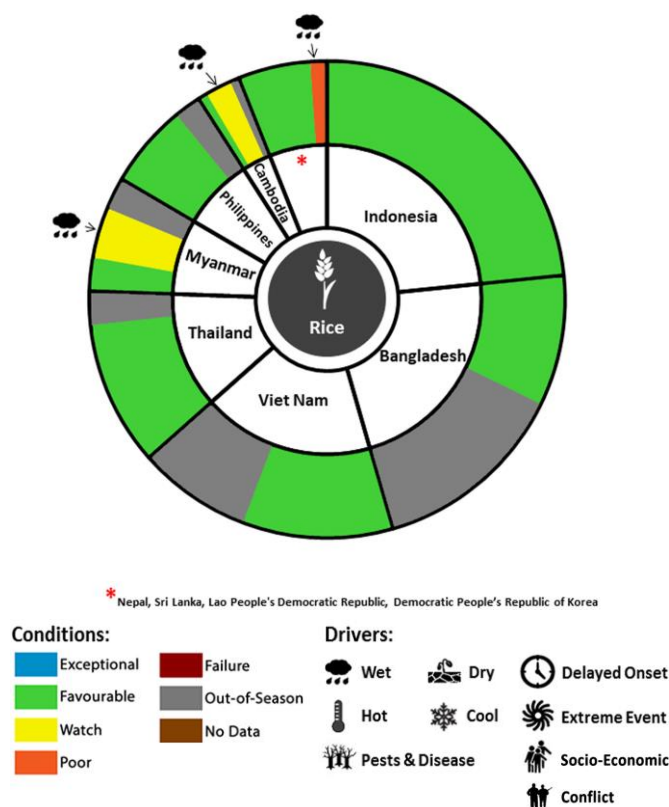
Southeast Asia



Crop condition map synthesizing rice conditions as of October 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 late growing stage under generally favourable conditions due to good rainfall during the early growing stage. Final yields are expected to be average except in localized lowland areas affected by monsoon flooding in **Cambodia** and parts of delta areas in **Myanmar**. On September 18th, Tropical Cyclone Noul brought heavy rains, strong winds and floods to localized areas of central **Viet Nam** before heading to southern **Laos**, particularly affecting Xekong and Champassak provinces and several provinces in western **Thailand**, particularly Buriram province. Further torrential rainfall from late September triggered flooding and landslides in northern **Viet Nam**, and from early October, prolonged heavy rainfall has been inundating the lower Mekong Region across central **Viet Nam**, northeast, central, and western **Cambodia**, southern **Laos**, and central-eastern **Thailand**, and the **Philippines** due to several tropical cyclones, resulting in localized crop damage. On October 20th and October 25th, Typhoons Saudel and Molave made landfall over the **Philippines** before continuing west-northwest and making landfall over central **Viet Nam**, and on November 1st, Super Typhoon Goni brought further flooding, mudslides, and strong winds to southern Luzon in the **Philippines**.

In **Indonesia**, harvesting of dry-season rice is at its peak with yields expected to be slightly lower than last year due to less rainfall received throughout the season. Sowing of wet-season rice is beginning under favourable conditions. In the **Philippines**, wet-season rice is under favourable conditions reflecting ample rainfall this season. Several tropical cyclones struck the country in October, bringing heavy rainfall, flash floods, and landslides throughout the country and causing population displacement, though no significant crop damage occurred. Most recently on October 20th, Typhoon Saudel caused the rise of water levels in Binga Dam in Benguet Province and flooded parts of Luzon, followed by Typhoon Molave on October 25th which caused floods and landslides in Central Luzon, Calabarzon, and Mimaropa regions. On November 1st, Super Typhoon Goni crossed the southern Philippines island of Luzon, bringing strong winds, rain, and floods; however, crop damage is expected to be minimal as farmers were advised by the Government to take early action. In **Thailand**, wet-season rice is entering the grain filling stage under favourable conditions with an increase in total sown area compared to last year along with an increase in expected yields despite some provinces in the north and central regions experiencing drought early in the growing season. In the northeast and central regions, flood damage from tropical cyclones in October is forecast to be only 0.2 percent of total planted area. In **Viet Nam**, conditions are favourable in the south for the continued harvesting of the summer-autumn (wet-season) crop with 1.49 million hectares harvested out of 1.77 million hectares



For detailed description of the pie chart please see description box on pg. 19.

planted, and conditions are favourable for the beginning of harvesting for the autumn-winter (wet-season) crop. Yields are forecast to be higher than last year due to favourable growing conditions. In the north, harvesting is beginning for the summer-autumn (wet-season) crop under favourable conditions with slightly higher expected yields compared to last year at 5.3 tonnes per hectare due to better irrigation preparation. Several tropical cyclones in October brought heavy rains and flooding across central and northern regions. While localized crop damage resulted in worst affected areas in the south, the rice crop has not been damaged. In **Laos**, wet-season rice is in grain filling to harvesting stage, and conditions are generally favourable. In lowland areas, planted area has reached 96 percent of the national plan of 717 thousand hectares, and 18 percent of the planted area has been harvested. In upland areas, 48 thousand hectares and 48 percent of the planted area have been harvested, and yields are estimated to be higher than the previous year at 2.1 tonnes per hectare. Flooding from early October in the southern provinces of Sekong and Savannakhet caused limited localized damage to crops. In **Myanmar**, wet-season rice planting has reached 97.6 percent of the national plan of 6.12 million hectares, similar to the previous year's progress. Crops are in tillering to young panicle forming stage and nearing maturity in rainfed hilly regions, while some central irrigated areas are still to be planted due to the late monsoon. Overall crop conditions are favourable except in parts of delta and river basin areas where heavy monsoon rainfall in October resulted in flooding, affecting over 35,000 hectares of wet-season rice. Twenty thousand hectares were damaged, and 9,700 hectares have been replanted.

In **Cambodia**, planting of wet-season rice is nearing completion with 2.74 million hectares and 106 percent of the national plan. Fifty-four percent of the planted area has been harvested with yields estimated at 3.7 tonnes per hectare, slightly lower than average as heavy rainfall from early October resulted in flooding throughout the country, particularly in northwest to lowland areas of the Mekong basin. The flooding affected 19 provinces, particularly Pursat, Battambang, Banteay Meanchey, and Pailin, and resulted in crop damage. Fourteen provinces have been affected by flash floods, and some agricultural lands remain inundated. In **Sri Lanka**, harvesting of secondary *Yala* season maize and rice crops finalized in October, and final conditions were favourable despite minor damage from drought in Trincomallee and Ampra. Planting of main *Maha* season maize and rice crops began in October to be harvested from February under favourable conditions. In **Bangladesh**, *Aman* season rice crops, which account for 35 percent of total annual output, are in vegetative to reproductive stage to be harvested from mid-November, and overall conditions are favourable. The combined excessive rainfall in March and April followed by Tropical Cyclone Amphan in May and widespread flooding in July and August that destroyed the paddy crop in various development stages are likely to result in localized yield losses for the 2020 *Aman* season rice harvest; however, overall yields are likely to remain average to above-average. Planting of *Boro* season rice crops will begin next month to be harvested from mid-April. In **Nepal**, harvesting of main season maize crops finalized in September under favourable conditions, and harvesting of main season rice crops will begin next month. In the **Democratic People's Republic of Korea**, harvesting of main season maize finalized in September while harvesting of main season rice finalized this month, together accounting for nearly 90 percent of total main season output. While this season's rainfall began with below-average amounts in April, improved rainfall from May to July was followed by a succession of typhoons from early August to early September, bringing heavy rainfall and strong winds to the region and making the April to September main cropping season one of the wettest on record since 1981. The storms triggered severe flooding that affected standing crops at maturity stage one month before harvest in the main cereal producing southern provinces and brought August surface soil moisture close to the ten-year maximum in North Hwanghae, South Hwanghae, North Pyongan, and South Pyongan. Excess soil moisture and waterlogging stress in the final stages of crop development is expected to have reduced yields in localized areas but benefitted crops in areas not affected by floods.

Regional Outlook: Above-average rainfall expected for November across mainland Southeast Asia and increased chances of above-normal December to February rainfall across Indonesia

Heavy, above-average rainfall during the past month [affected Vietnam, Laos, Cambodia, southern Thailand, southern Myanmar, the Philippines, and parts of Indonesia](#). Rainfall amounts for most of October were between 120 and 200 percent of average in these areas and exceeded 200 percent of average in southern Laos. In other parts of the region, conditions were more mixed, with below-average amounts in central Myanmar, and near-average amounts in Malaysia and northern Indonesia (Figure 1-left).

According to the forecast for October 26th to November 10th, wetter than average conditions will continue to impact mainland Southeast Asia. This forecast shows especially high amounts for this period in the Philippines, eastern Vietnam and central Myanmar, which could already present flooding hazards. Drier than average conditions are forecast in Malaysia and northern Indonesia (Figure 1-middle).

The Philippines was heavily impacted by Typhoon Goni, the strongest storm of the year thus far. Typhoon Goni [made landfall north of the mid-section of the Philippine archipelago](#) on November 1st. Catastrophic winds, heavy rainfall, and flooding destroyed infrastructure, displaced tens of thousands of people, and killed at least 16 people. Tropical Storm Atsani may bring heavy rains to the northern Philippines, Taiwan, and Vietnam beginning on November 6th.

Rainfall in upcoming months will impact the main rice growing season in Indonesia. November to January rainfall is likely to be above-normal in southern Indonesia. Some western coast areas of Sumatra and Kalimantan islands are more likely to receive normal or below-normal amounts (Figure 1-right).

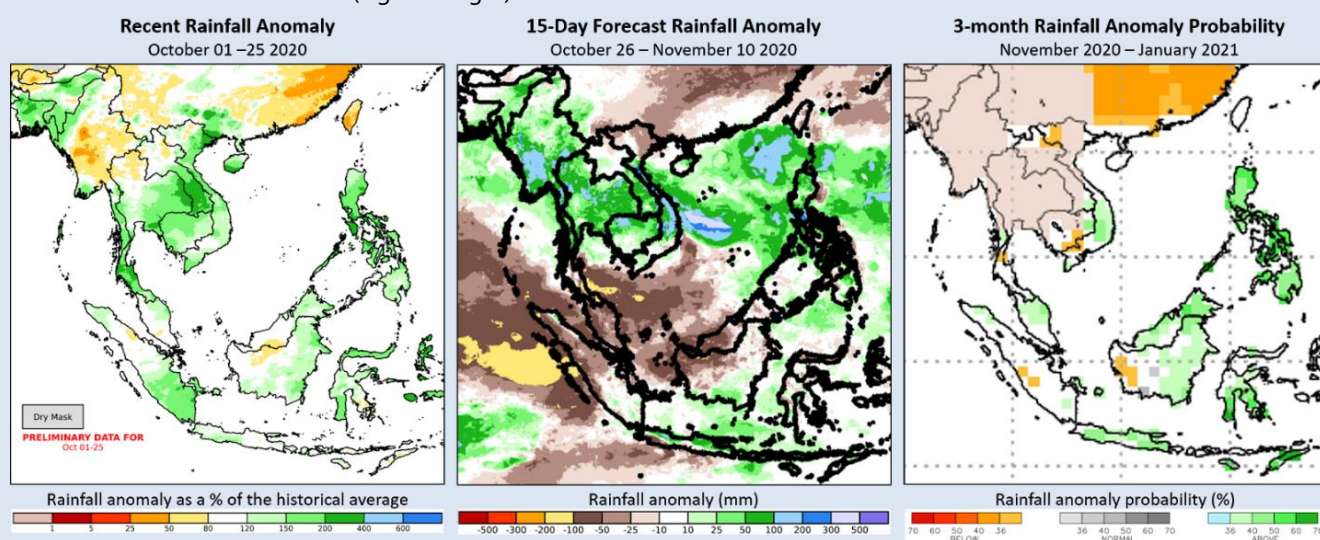
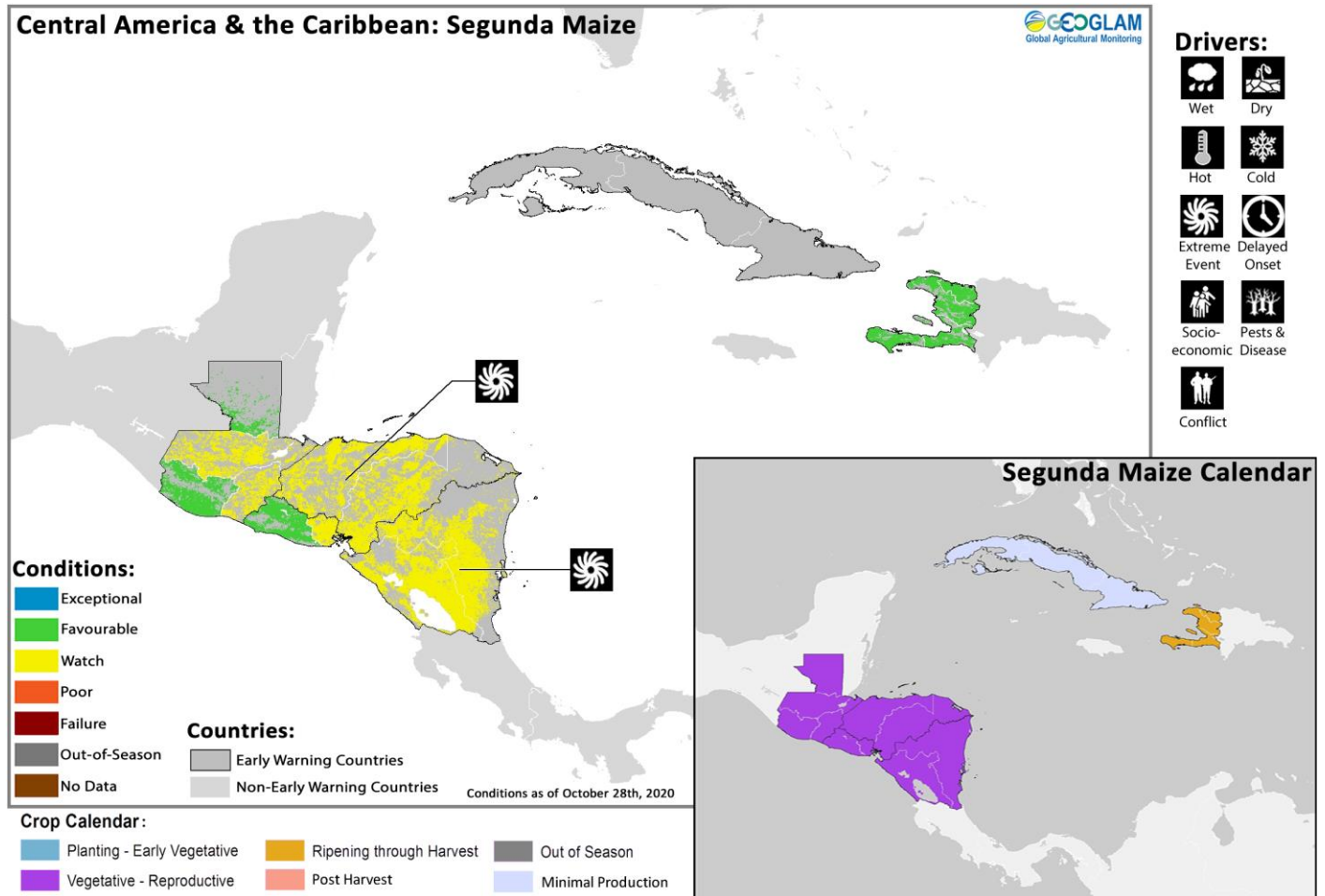


Figure 1. Estimated percent-of-average anomaly for October 1st to 25th, a 15-day rainfall anomaly forecast for October 26th to November 10th, and a 3-month NMME probabilistic forecast for November 2020 to January 2021, based on October 2020 conditions. The left panel is a UCSB Climate Hazards Center Early Estimate, which compares 2020 rainfall amounts to the 1981-2019 CHIRPS average. The left panel shows the estimated percent-of-average anomaly from October 1st to 25th. The middle panel is the 16-day unbiased GEFS forecast anomaly from October 26th. On the right is the 3-month NMME experimental probabilistic forecast for November 2020 to January 2021, based on October 2020 conditions. The forecast probability is calculated as the percentage of all 79 NMME ensemble members that fall in a given tercile (above/below/near normal). White color indicates there is no dominant category across the model forecasts. NMME image from https://www.cpc.ncep.noaa.gov/products/international/nmme/nmme_seasonal.shtml

Source: UCSB Climate Hazards Center.

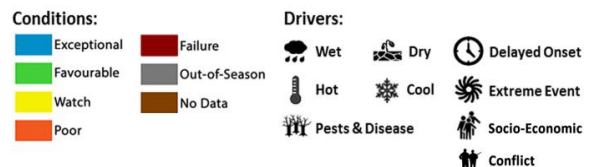
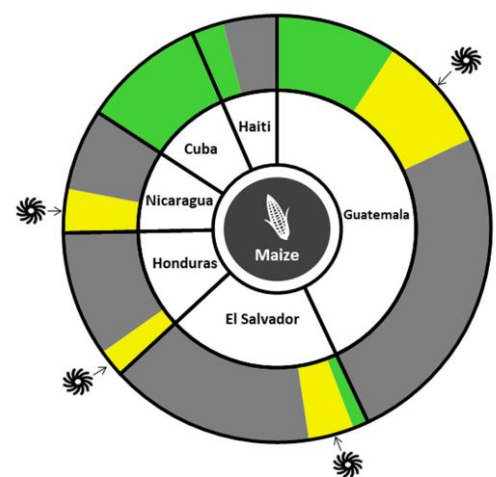
Central America & Caribbean



Crop condition map synthesizing information as of October 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 and the Caribbean, harvesting of *Primera* season crops finalized in September under favourable conditions in **El Salvador, Guatemala, Honduras, and Nicaragua**. Harvesting of *Postre/Segunda* season bean and maize crops began in October in **El Salvador** and **Haiti** while crops are still developing in **Guatemala, Honduras, and Nicaragua** to be harvested from December. While good rainfall distribution has promoted normal development of crops so far in the season, there is concern across parts of the subregion as Hurricane Eta made landfall over northeastern **Nicaragua** as a Category 4 Hurricane on November 3rd, bringing heavy rains and high winds and causing flooding and wind damage. Eta was then downgraded to a tropical storm as it continued along its westward path to eastern and central **Honduras** on November 4th, and it is projected to pass over northern **El Salvador** and reach eastern **Guatemala** on November 5th before finally turning northeast into the Caribbean Sea by November 7th. The storm could accumulate as much as 635mm of rainfall in **Nicaragua** and **Honduras**, and while it is projected to weaken as it progresses inland, Eta will continue to produce heavy rainfall and flooding over portions of Central America, leading to flash flooding, river flooding, and landslides.

In **Guatemala**, heavy rainfall in October resulted in localized flooding in the southern and northern regions. However, the impact on crop development is expected to be limited. In **Honduras**, October rainfall was above-average in the Golfo de Fonseca area in the southern part of the country while the remainder of the country experienced normal rainfall. In **El Salvador**, heavy rainfall in October resulted in above-average soil moisture in the eastern region. In **Nicaragua**, forecasts of above-average rainfall in November and



For detailed description of the pie chart please see description box on pg. 19.

December are likely to benefit *Postrera* season yields; however, there is concern as additional heavy rainfall from Hurricane Eta is likely to impact crops in the north. In **Haiti**, harvesting of main season rice crops finalized in October under favourable conditions. Harvesting of second season bean and maize crops will finalize in November, and conditions are generally favourable as precipitation in October was average to above-average, favouring summer minor season crops at flowering and grain-filling stages. However, some areas in the Nord-Ouest and Nord-Est show poor conditions due to below-average and erratic rainfall from late March that slowed agricultural activities and crop development except in areas with irrigation systems. In **Cuba**, harvesting of main season maize and rice crops continued in October, and conditions are favourable. October rainfall was above-average due to the passage of Tropical Storm Delta early in the month and Tropical Storm Zeta.

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 November 5th, 2020.

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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Cover Photo by Christina Justice

Contributing partners



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