

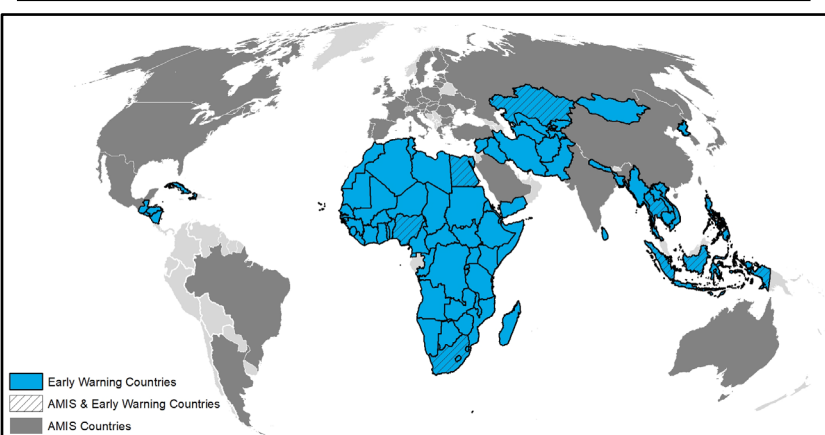


Crop Monitor

EARLY WARNING

Overview:

In **East Africa**, planting and development of main season cereals is underway in the north under mixed conditions. In the south, harvesting of main season cereals is underway in most areas, and conditions are mixed with concerns in parts of Uganda, Kenya, Somalia and the United Republic of Tanzania due to dry conditions as well as flooding in southern Somalia (See Regional Outlook Pg. 7). In **West Africa**, harvesting of main season cereals is now underway in parts of Liberia, Ghana, Togo, Benin, and Nigeria, and agro-climatic conditions remain favourable due to good rainfall received. However, concern remains in conflict-affected areas. In the **Middle East and North Africa**, wheat harvesting finalized under mixed conditions as persistent seasonal dryness resulted in poor outcomes in parts of Morocco, Algeria, Tunisia, Syria, Iraq, and Iran. In **Southern Africa**, wheat crops continue to develop under favourable conditions. In **Central and South Asia**, wheat harvesting continues under mixed conditions with ongoing dry concerns in Turkmenistan, Uzbekistan, Kazakhstan, Kyrgyzstan, and Afghanistan. In northern **Southeast Asia**, wet-season rice is developing under generally favourable conditions despite delayed rainfall onset, though final planted area and yields could be affected, particularly in Thailand due to dry conditions. In Indonesia, conditions are favourable for the end of the wet season and beginning of the dry season. In **Central America and the Caribbean**, persistent dry and hot conditions that are forecast to continue through November are resulting in continued concern in almost all regions and are likely to impact *Primera* season yield outcomes. In Cuba, conditions remain favourable. This year's eastern Pacific and Atlantic hurricane seasons are likely to be above-normal and near-normal, respectively (See Regional Outlook Pg. 17).



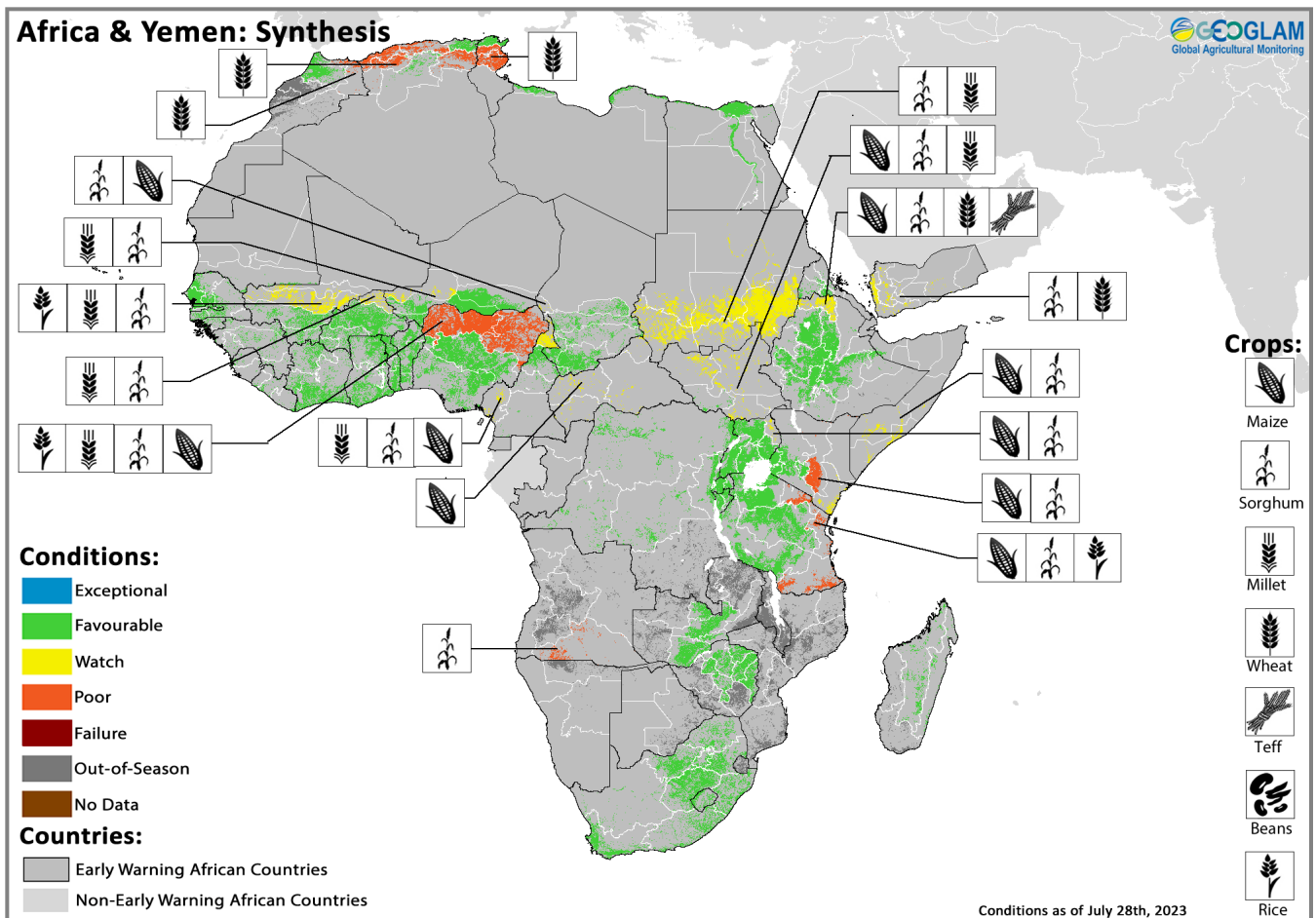
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GEOGLAM Crop Monitor for Early Warning

Crop Conditions at a Glance

based on best available information as of July 28th



Crop condition map synthesizing information for all Crop Monitor for Early Warning crops as of July 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, planting of main season cereals is ongoing with some concern due to dry conditions, flood risks in parts of Sudan and South Sudan, and socio-economic challenges. In Ethiopia, harvesting of *Belg* crops finalized while the *Meher* season is underway, and conditions are generally favourable. In the south, harvesting is underway for main season crops in some areas, and conditions are mixed with concern in parts of Uganda, Kenya, Somalia and the United Republic of Tanzania (See Regional Outlook Pg. 7).

WEST AFRICA: Planting and development of main season cereals continues in most regions while harvesting is now underway in a few countries, and agro-climatic conditions remain favourable with near-average yields expected, except in the conflict-affected areas.

MIDDLE EAST & NORTH AFRICA: Wheat harvesting finalized across the subregion under mixed conditions with persistent dry conditions contributing to below-average yield outcomes in most areas in Morocco, Algeria, and Tunisia as well as in northeastern Syria, northwestern Iraq, and north-central and northeastern parts of Iran.

SOUTHERN AFRICA: Harvesting of main season cereals finalized last month across the subregion under mixed

conditions due to areas with extended dry periods with above-average temperatures. Wheat development is underway in Zambia, Zimbabwe, South Africa, and Lesotho, and overall conditions remain favourable.

CENTRAL & SOUTH ASIA: Wheat harvesting continues under mixed conditions due to ongoing dryness in Turkmenistan, Uzbekistan, Kazakhstan, Kyrgyzstan, and Afghanistan while recent rains have resulted in crop recovery in parts of central-east and southern Afghanistan.

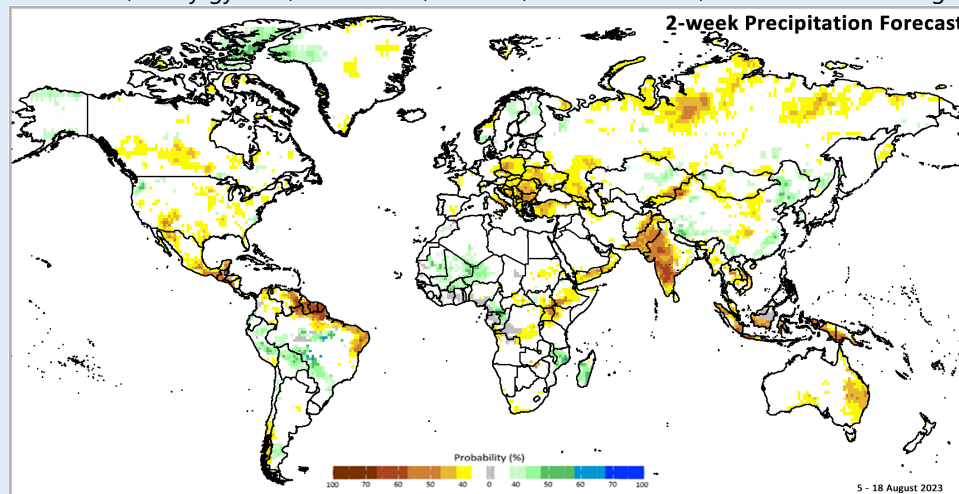
SOUTHEAST ASIA: In the north, wet-season rice is in the tillering to maturing stage under generally favourable conditions despite a delayed start to the rainy season, except in Thailand where the dry conditions are impacting crop development (See Regional Outlook Pg. 14). In Indonesia, harvesting of wet-season rice finalized under favourable conditions.

CENTRAL AMERICA & CARIBBEAN: Concern remains in almost all regions for *Primera* season cereals in Central America due to below-average and erratic rains and high temperatures since late 2022. Rainfall totals are among the lowest in 42 years across much of Guatemala, western El Salvador, and parts of northern Honduras (See Regional Outlook Pg. 17).

Global Climate Outlook: Two-week Forecast of Areas with Above or Below-Average Precipitation

The two-week forecast (Figure 1) indicates a likelihood of above-average rainfall over the Pacific Northwest and central-east United States, Ecuador, Peru, Bolivia, central and western Brazil, northern Chile, southern Argentina, Morocco, Mauritania, Mali, southern Algeria, Niger, Burkina Faso, western Cote d'Ivoire, northwestern Nigeria, Cameroon, the Republic of Congo, Mozambique, Madagascar, western South Sudan, Scandinavia, the Far East of the Russian Federation, northeastern Kazakhstan, northern Mongolia, southwest, south, and eastern China, northeastern India, northern Japan, and the Republic of Korea.

There is also a likelihood of below-average rainfall over the Canadian Prairies, Midwest, northeast, and southern parts of the United States, Mexico, Guatemala, Belize, El Salvador, western Honduras, western Nicaragua, Colombia, eastern Venezuela, Guyana, Suriname, French Guiana, northern Brazil, southern Peru, southern Chile, the Central African Republic, northern Sudan, eastern South Sudan, Ethiopia, Uganda, western Kenya, northern United Republic of Tanzania, the Democratic Republic of Congo, southern Zambia and northwestern Zimbabwe, southern South Africa, much of central and eastern Europe, western Turkey, the North Caucasus region and northern parts of the Russian Federation, Yemen, Oman, Iran, eastern Afghanistan, southeastern Kazakhstan, Kyrgyzstan, Pakistan, India, Sri Lanka, southern Mongolia, central China, Myanmar, Thailand, Laos, Cambodia, Viet Nam, Malaysia, Indonesia, central-south and eastern Australia, and Papua New Guinea.



Thailand, Laos, Cambodia, Viet Nam, Malaysia, Indonesia, central-south and eastern Australia, and Papua New Guinea.

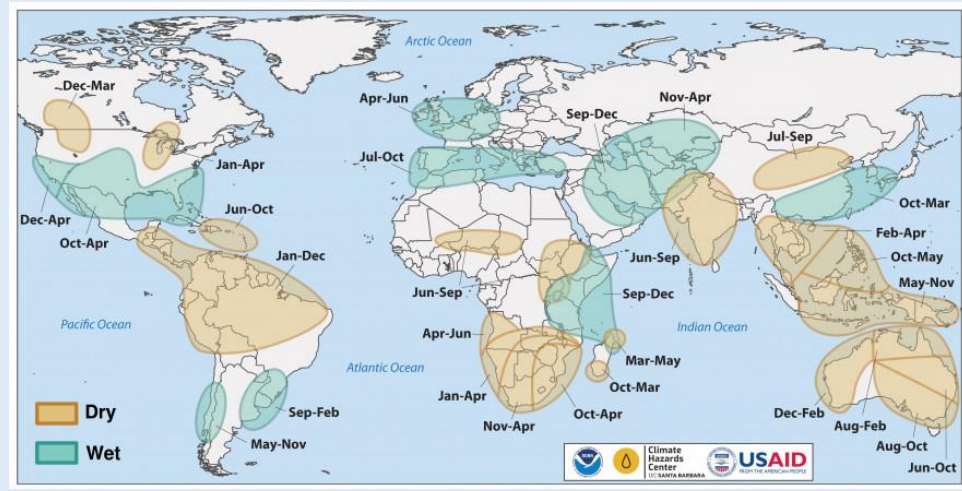
Figure 1: IRI SubX Precipitation Biweekly Probability Forecast for 5 – 18 August 2023, issued on 28 July 2023. The forecast is based on statistically calibrated tercile category forecasts from three SubX models. Source: [IRI Subseasonal Forecasts Maproom](#)

Climate Influences: El Niño forecasted to reach peak strength from November to January and remain active through early 2024

The El Niño-Southern Oscillation (ENSO) is currently in the El Niño phase. This event is forecast to reach a peak strength of moderate-to-strong intensity during November to January and to remain active until February to April (85% chance), according to the IRI/CPC forecast.

El Niño events tend to enhance rainfall in Central Asia, southern North America, south-eastern South America, southern Europe, eastern and southern East Africa, and southern and eastern China. Drier-than-average conditions tend to occur in Central America, the Caribbean, northern South America, parts of western and northern East Africa, Southern Africa, India, Northern China, the Maritime Continent, and Australia.

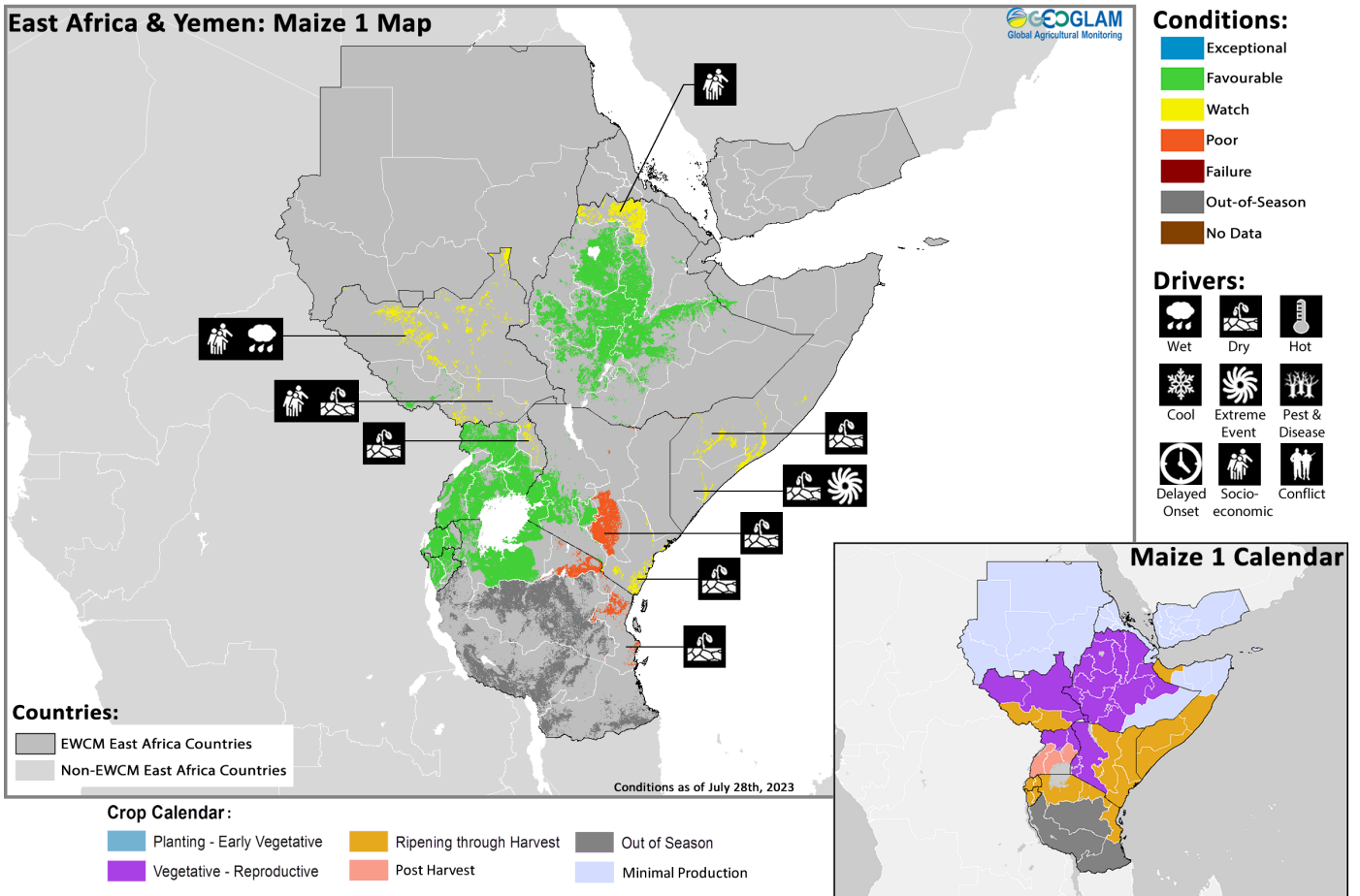
Positive Indian Ocean Dipole (IOD) conditions are forecast for August to December, according to the Australian Bureau of Meteorology. Positive IOD conditions typically enhance the drying influences of El Niño in Australia and the Maritime Continent, and substantially increase the chances of a wet and intense East Africa short rains season during El Niño events.



Source: UCSB Climate Hazards Center

Figure 1. Areas of dry and wet conditions during El Niño phase of ENSO. Source: [NOAA & CHC & FEWS NET](#)

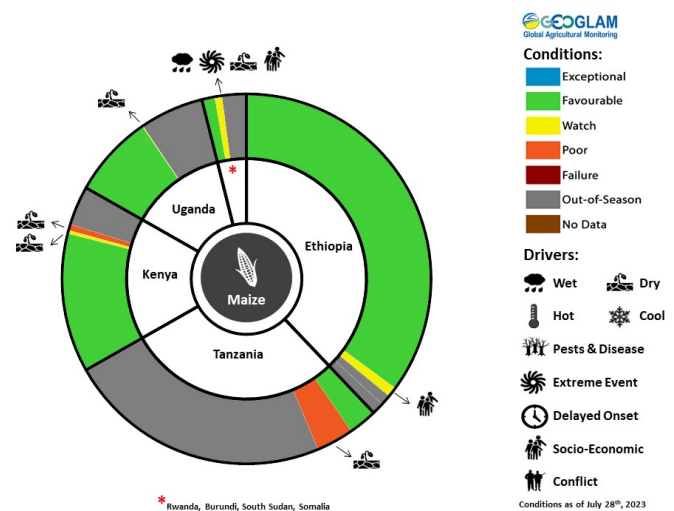
East Africa



Crop condition map synthesizing Maize 1 crop conditions as of July 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.**

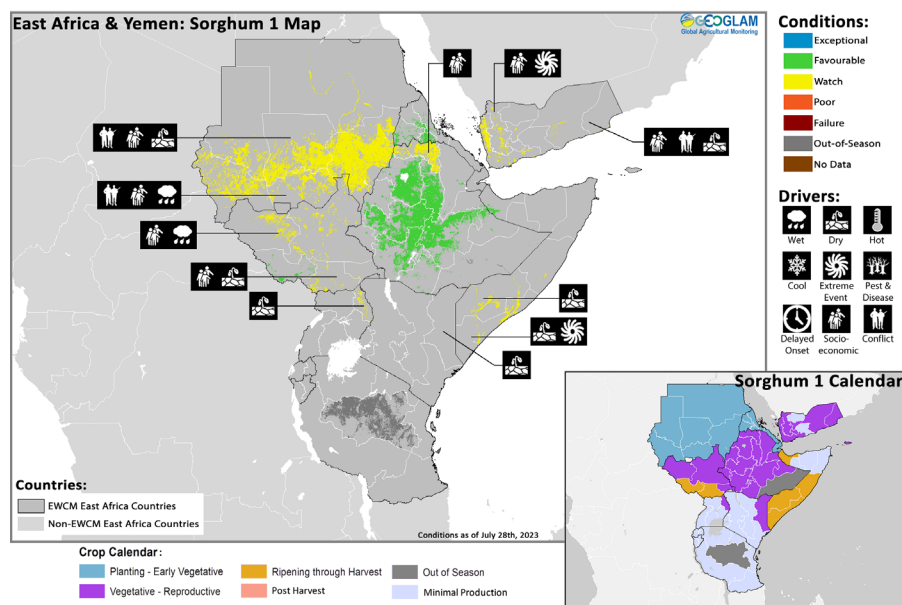
Across the north of the subregion, harvesting of main season cereals is underway in southern **South Sudan** while planting and development continues elsewhere in **South Sudan, Sudan, Eritrea, Djibouti, and Yemen**. Overall conditions are mixed with dry concerns in southeastern **South Sudan** and parts of **Sudan** where precipitation is below-average (See Regional Outlook Pg. 7). Conversely, increased rains may result in waterlogging and flooding of crops in western **South Sudan** and southern **Sudan**. Furthermore, persistent conflict and socio-economic challenges continue to impact agricultural activities in **Yemen**, and a recent uptick in conflict this year in **Sudan** is impacting cropping in affected areas. Additionally, socio-economic issues relating to agricultural input access and high fuel costs remain a concern in **South Sudan**. In **Ethiopia**, harvesting of *Belg* season maize crops finalized under favourable conditions while *Meher* season cereals continue to develop under generally favourable conditions except in Tigray. The northern countries, including **Sudan, South Sudan, and Ethiopia**, rely on the June to September rainfalls season for cropping activities, and the bulk of the rains typically fall between June and August. However, erratic rainfall this season is likely to be followed by below-normal rains for the August to October period in most parts of **Sudan**, the eastern half of **South Sudan**, and much of north and central **Ethiopia**, which could lead to a reduction in current season production (See Regional Outlook Pg. 7).

Across the south of the subregion, harvesting of main season cereals is underway in the bimodal southern half of **Uganda, Rwanda, Burundi**, southeastern marginal areas of **Kenya**, the **United Republic of Tanzania**, and **Somalia** while crops continue to develop in the unimodal northern half of **Uganda** and the major producing unimodal West and Rift Valley regions of **Kenya**. Overall conditions are mixed with below-average yield outcomes expected along the bimodal north of



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

the **United Republic of Tanzania** and the bimodal east of **Kenya** due to persistent dry conditions. Dry concerns also remain in the southeastern coastal areas of **Kenya**, central and southern **Somalia**, and northeastern **Uganda**. Current hot conditions in parts of the northern sector are worsening rainfall deficits in parts of **Ethiopia**, **Sudan**, **Kenya**, and **Somalia**, and hotter than normal conditions are likely to continue through August throughout the subregion (See Regional Outlook Pg. 7). For the August to October period, there are high chances for drier than normal conditions over west and northern areas of the subregion, including **Ethiopia**, and wetter than normal conditions over eastern areas of the Horn of Africa. For the October to December period, the forecast development of a Positive IOD and continuation of El Niño is expected to bring additional severe above-average rainfall to eastern areas of the Horn of Africa (See Regional Outlook Pg. 7).



*Crop condition map synthesizing Sorghum 1 conditions as of July 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.***

continue to develop elsewhere. In Western Equatoria located in the southwest, crops have recovered from previous dry concerns due to increased rains in the west. However, the increased rains are now causing concern in some northwestern areas due to potential waterlogging and flooding impacts. Conversely, in the eastern half of the country, concern remains due to below-average rains received, particularly in the southeast. Below-normal rainfall conditions are forecast to continue for much of the eastern half of the country for the August to October period while above-normal rainfall is expected in the west (See Regional Outlook Pg. 7). Furthermore, socio-economic issues relating to agricultural input access and high fuel costs remain a concern throughout the country. In **Sudan**, planting of main season millet and sorghum crops continues with some concern due to ongoing dry conditions. Conversely, recent rainfall in the south is causing concern due to potential waterlogging and flooding impacts, particularly along the Blue Nile area in the southeast of the country where there were some reports of flooding. Furthermore, there is concern in areas impacted by the recent eruption of conflict from mid-April that is limiting access to farming inputs and causing fuel price increases that in turn raise production costs. The insecurity is also resulting in limited or no access to crop fields due to displacement. In **Eritrea**, planting of main season sorghum and wheat crops is just beginning under favourable conditions. In **Djibouti**, planting of main season millet and sorghum crops is just beginning under favourable conditions. In **Yemen**, both sorghum and spring wheat crops are in vegetative to reproductive stage for harvest from August. Slightly below-average rains and soil moisture is impacting minor producing areas of the centre and east while agro-climatic conditions remain generally favourable in the main producing west with generally good rains and crop biomass. However, reports of flooding from mid-March to May in some western areas of the country disrupted or constrained access to inputs and resulted in infrastructure damage, particularly to irrigation infrastructure in Al Mahwit governorate located in the central west. Furthermore, socio-economic challenges related to persistent conflict continue to impact agricultural activities and production throughout the country.

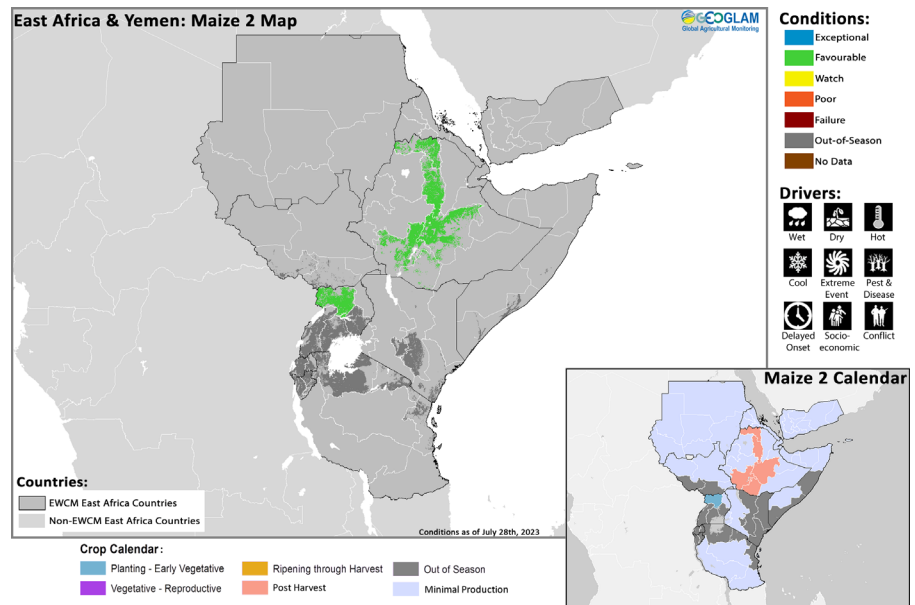
Southern East Africa

In **Uganda**, harvesting of first season cereals is nearing completion in the central and southern areas while crops continue to develop in the north for harvest from August. Additionally, planting of second season maize is just beginning in the northwest. Overall conditions remain favourable with some ongoing concern in Karamoja in the northeast due to dry conditions. In **Kenya**, ongoing crop development and the beginning of harvesting is underway for Long Rains cereals under mixed conditions. Crops in the southeastern marginal agricultural areas are unlikely to recover from persistent dry conditions. Despite above-average cumulative totals, crops were impacted by the poor temporal distribution of the March to May Long Rains. Field reports indicate maize harvest is expected to be below-average in most minor producing areas, except in some localized pockets such as Kitui in the central east where the crop conditions appear to be good as well as in Kwale along the southern coast where an increase in planted area and good rains are

Northern East Africa & Yemen

In **Ethiopia**, harvesting of *Belg* season maize crops finalized under favourable conditions due to conducive weather outcomes and despite previous concerns regarding limited outbreaks of conflict that resulted in issues with accessing agricultural inputs. *Meher* season cereals are in vegetative to reproductive stage for harvest from September, and despite some rainfall deficits reported in a few areas, generally good rainfall performance and soil moisture conditions since the start of the season have benefitted crop development. However, the presence of El Niño may worsen poor rainfall conditions in some areas (See Climate Influences Pg. 3 and Regional Outlook Pg. 7). Additionally, concern remains in Tigray region where ongoing pockets of conflict may impact cropping outcomes due to input access constraints. In **South Sudan**, harvesting of first season cereals is underway in Central and Western Equatoria while crops

expected to result in significantly above-average production. Conversely, conditions remain favourable in the major producing unimodal western half of the country. In **Rwanda**, harvesting of Season B maize crops continues under favourable conditions and will finalize in August. In **Burundi**, harvesting of Season B maize and rice crops is now underway, and conditions remain favourable. In **Somalia**, harvesting of *Gu* season maize and sorghum crops is now underway, and conditions are mixed with ongoing concern in the central and southern areas as a result of persistent drought conditions due to the below-average March to May rains in these areas. Conversely, there was an early transition to the April to June *Gu* rains this year, leading to a substantial recharge of water sources and improved soil moisture conditions that favoured land preparation and planting. This has led to crop recovery in the northwest where conditions have been upgraded to favourable. However, there have been reports of floods impacting parts of the Shabelle and Juba catchment areas. An increase in rains forecast from August through the remainder of the year is projected to slow the loss of soil moisture and support production in central and southern areas but also raises concerns for additional flood risks (See Regional Outlook Pg. 7). In northern bimodal areas of the **United Republic of Tanzania**, harvesting of both *Masika* season cereals and *Vuli* season sorghum is nearing completion, and conditions are mixed. Conditions remain favourable in the northwest while crops in the north centre and along the northern coast are now unlikely to recover from persistent dryness. In central and southern unimodal areas, harvesting of *Masika* season rice continues with below-average yields expected in the southeast due to prolonged dry conditions and near-average yields expected in the centre and southwest.



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

Regional Outlook: Dry conditions over west and northern areas and wetter conditions over eastern areas forecast for the Aug–Oct period, followed by an above-average Oct–Dec rainfall season in the eastern Horn of Africa

During June 26th to July 25th, conditions were drier than average in many areas— in central and southern Sudan, northern, central, and southern Ethiopia, South Sudan, most of Uganda, western-central, northwestern, and parts of coastal Kenya, and southern and northwestern Somalia (Figure 1-left). Rainfall totals were much lower than average during this six week period, by 50 to 100 mm, in southeastern South Sudan and in northwestern Ethiopia, as well as in southern-central and northern Rift Valley areas in Ethiopia. Rainfall was above-average in relatively few areas of the region—in western Sudan, central-western Ethiopia, and portions of southeastern Kenya and eastern Tanzania. Temperatures were higher than average across many areas, including in central and northern Ethiopia, central and northern Sudan, Kenya, and northwestern and southern coastal areas in Somalia. The hot conditions are likely adversely impacting northern sector areas with deepening rainfall deficits. In the eastern Horn, NDVI and surface water conditions are rapidly deteriorating under these conditions.

There are concerns that poor rainfall conditions may worsen in northern, eastern, Rift Valley, and southern areas of Ethiopia, based on the drying tendency of El Niño which is currently present (See Climate Influences Pg. 3). A seasonal rainfall outlook that uses many Ethiopia in situ observations for June to mid-July, and rainfall during past El Niño years through September, identifies relatively high chances (60-90%) of below-normal Kiremt rainfall in these regions (Ethiopia Monitoring Report from [July 27th](#)). In contrast, in Ethiopia's central-western region, seasonal rains have been mainly above-average, and overall good rainfall performance with periodic heavy rains appears likely.

The drying impacts of El Niño also increase the likelihood of below-average June to September 2023 rainfall totals in central Sudan, southeastern South Sudan, northeastern Uganda, and central-western and northwestern Kenya. The latest outlook for June 1st to August 10th, which uses available rainfall data and a two-week forecast from July 26th, indicates the development of cumulative rainfall deficits in many of these locations, and that these could range from ~50 to 90% of average (Figure 1 middle-left). From late July to early August, areas in Ethiopia, Uganda, South Sudan, and Kenya where dry conditions have prevailed will continue to receive below-average rainfall, based on GEFS and ECMWF forecasts. Above-average rainfall is forecast in central-western and northwestern Ethiopia and in portions of northern South Sudan. There are moderate to high flood risks over western Ethiopian highlands into eastern South Sudan.

Several longer-range model forecasts are indicating drying impacts of El Niño during the next several months (See Climate Influences Pg. 3), raising the chances that many western and northern locations could receive low or inconsistent rainfall. Below-normal August to October rainfall is indicated by NOAA's new hybrid C3S/machine-learning-based forecast system (Figure 1 middle-right) and forecasts from ICPAC and the WMO. Forecasts strongly agree that hotter-than-normal conditions are very likely throughout the region. High temperatures can exacerbate impacts of dry conditions, making it more likely that cropping areas will be negatively impacted by irregular rainfall and heat stress in the months ahead.

A highly above-average September to December 2023 rainfall season is anticipated in eastern East Africa, based on the forecast development of a positive Indian Ocean Dipole and continuation of El Niño conditions. In eastern Kenya, Somalia, and southeastern Ethiopia, there are very high chances (70-90%) of a 1-in-5 year wet season (Figure 1-right and [Climate Hazards Center blog](#)). Wet conditions would benefit pasture conditions, water availability, and agricultural opportunities. However, extreme rainfall is likely to occur under these conditions and this will increase the risks of flooding and infectious disease outbreaks.

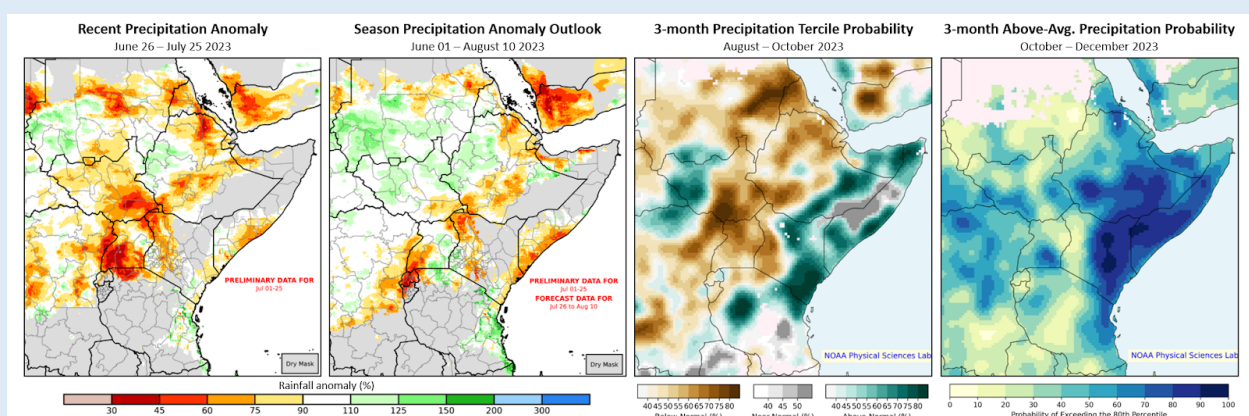
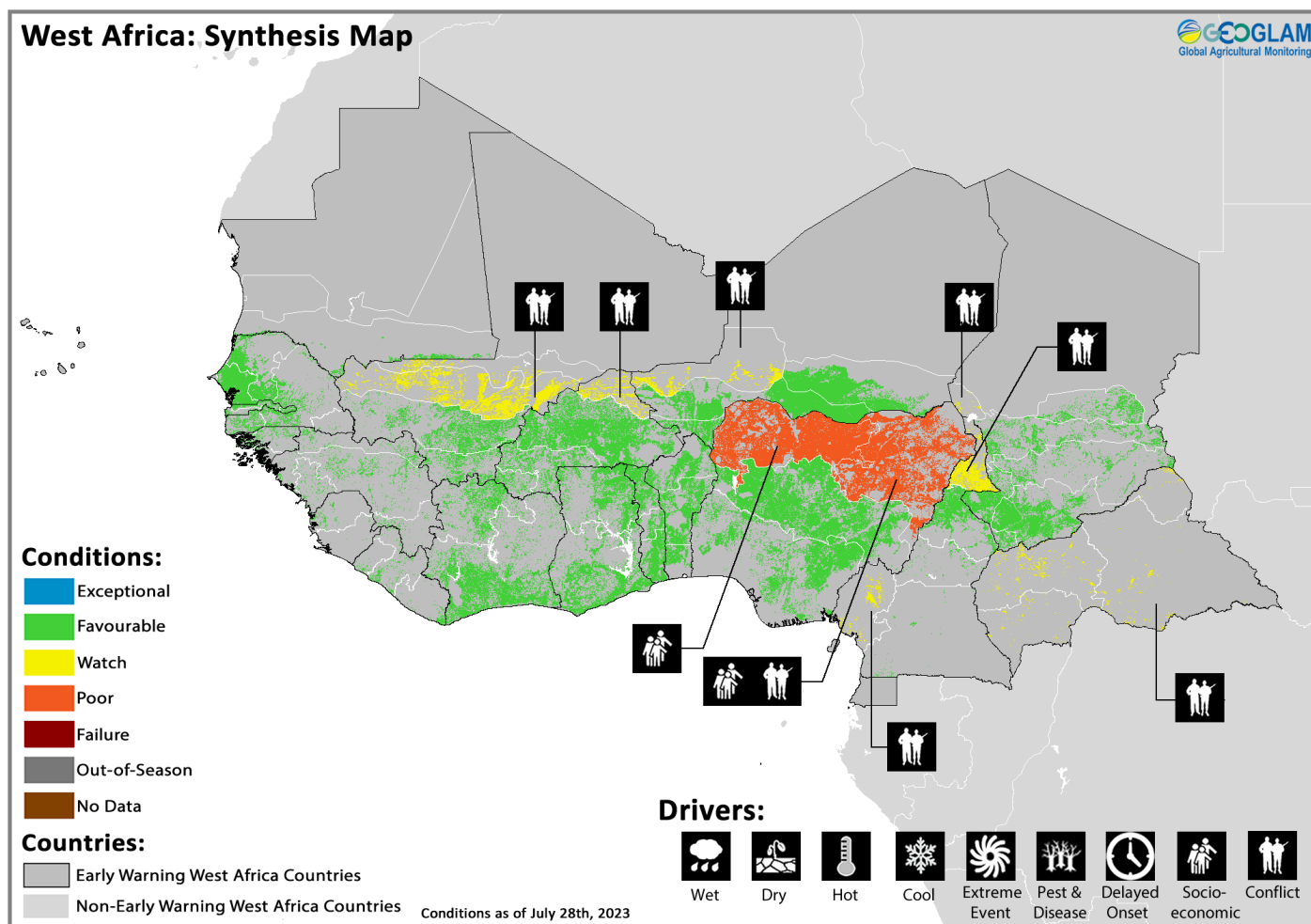


Figure 1. A recent rainfall anomaly, a seasonal rainfall anomaly outlook, and 3-month probabilistic rainfall forecasts. Left and middle-left: CHC Early Estimates, which compare current precipitation totals to the 1981–2022 CHIRPS average for respective accumulation periods. These show the percent of average precipitation for June 26th to July 25th, 2023 and June 1st to August 10th, respectively. Both panels use CHIRPS Prelim for July 1st to 25th; the second panel includes a CHIRPS-GEFS forecast for July 26th – August 10th. Middle-right: Probabilities of above and below-normal August to October 2023 rainfall. Right: Chances of highly above-average (> 80th percentile) October to December 2023 rainfall. Forecasts from NOAA PSL Experimental Forecasts. UCSB Climate Hazards Center

West Africa

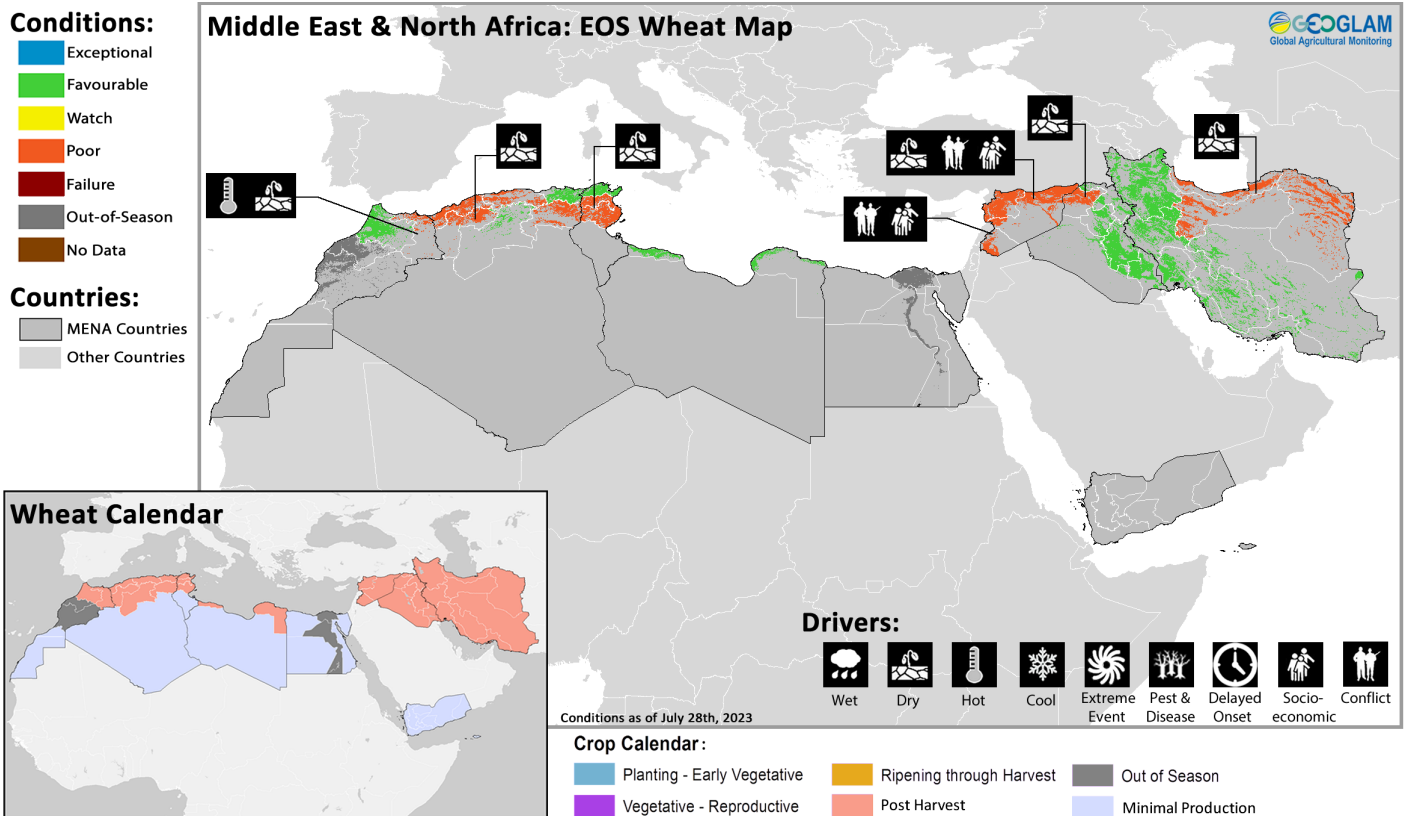


Crop condition map synthesizing crop conditions as of July 28th. Crop conditions over the main growing areas are based on a combination of inputs including remotely sensed data, ground observations, field reports, national, and regional experts. **Crops that are in other than favourable conditions are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

In West Africa, harvesting of main season cereals is now underway in eastern **Liberia**, southern **Ghana**, southern **Togo**, southern **Benin**, and **Nigeria** while planting and development continues elsewhere in the subregion. Additionally, planting and development of second season maize and rice crops is underway in **Nigeria** and **Cameroon**. Generally average to above-average cumulative rainfall amounts across the subregion, with some localized areas of below-average rainfall, have resulted in mostly favourable conditions with near-average yields expected. However, additional rainfall forecast through September in combination with higher than average water runoff in most of the Sahel's river basins increases the likelihood of flooding and potential localized crop damages. Concern also remains in the conflict-affected areas of central **Mali**, northern **Burkina Faso**, western **Niger**, northeastern **Nigeria**, western **Chad**, the Far North and Southwestern regions of **Cameroon**, and the **Central African Republic**. There is also ongoing concern regarding socio-economic challenges relating to limited resources in north west and north-central **Nigeria**.

In **Mali**, normal to above-normal cumulative rainfall from early May through late July is favouring crop planting and development, though uneven distribution is causing planting delays in the southern agricultural zones. Additionally, ongoing insecurity in the central regions continues to impact agricultural production. In **Burkina Faso**, irregular and insufficient rainfall in localized areas of the south and west has resulted in some planting delays as dry spells have necessitated re-seeding, and some farmers have substituted other shorter-cycle crops. Despite favourable rainfall forecasts, increasing numbers of displaced populations and restricted access to fields in the north may lead to decreased planted area and lower yields due to reduced access to inputs. In **Nigeria**, ongoing conflict in the northeast continues to result in displacement, hindering farmers' ability to engage in agricultural activities, restricting income access, and disrupting market function. In the northwest and north-centre, persistent farmer/herder conflict and other security related disruptions continue to hinder agricultural engagement. Furthermore, successive economic shocks, including a 200 percent increase in fuel prices caused by the removal of the petrol subsidy, coupled with the devaluation of national currency, have resulted in persisting increases in the costs of transportation and agricultural production. In **Chad**, there was a slight delay in the start of the rainfall season, and performance has been characterized by irregular distribution and intermittent dry spells. A recent 10 to 15-day dry spell in localized areas of the south resulted in sowing delays, crop wilting, and weeds in some fields. Additionally, insecurity resulting from recent intercommunal conflicts in localized southern areas is disrupting agricultural activities.

Middle East & North Africa

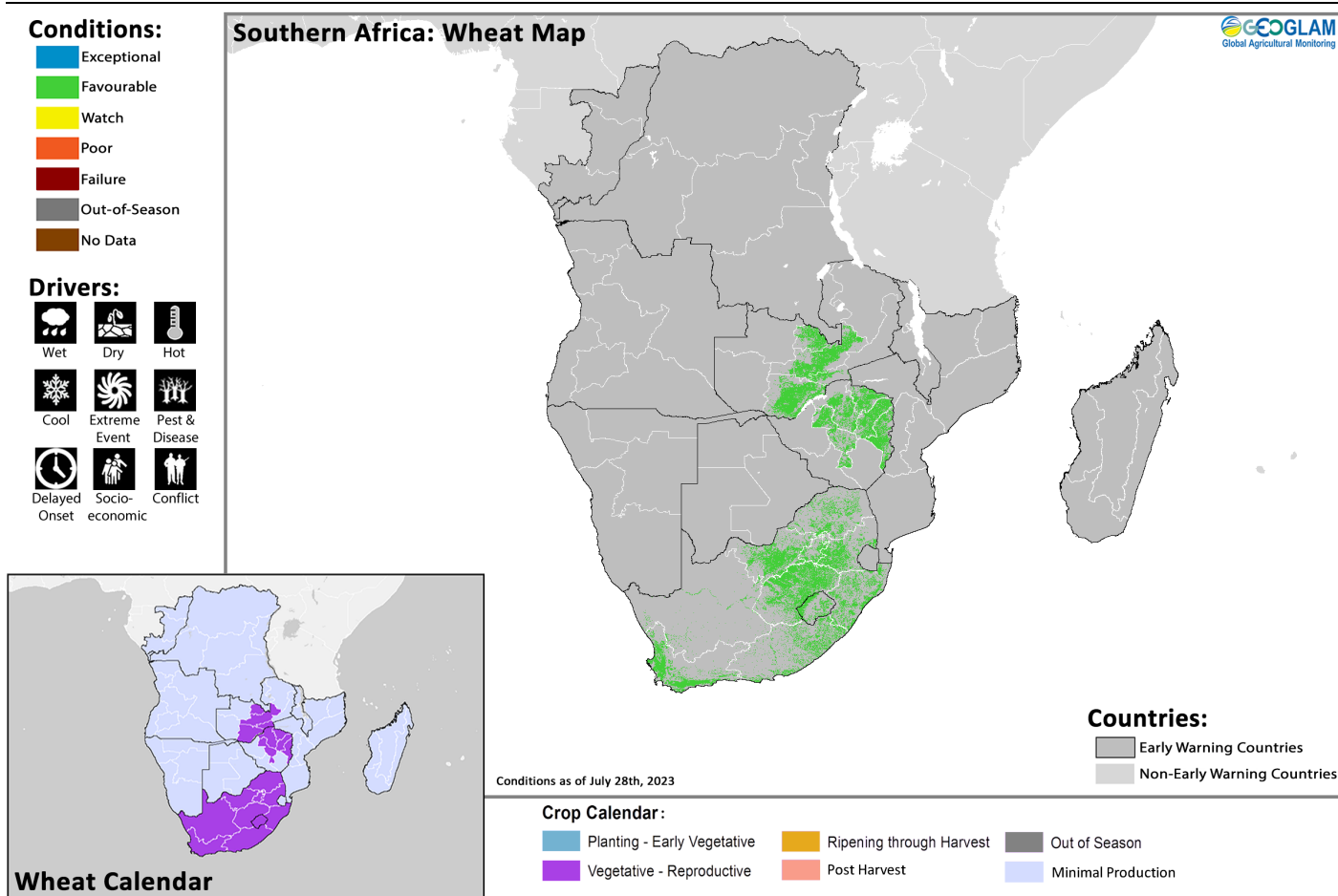


Crop condition map synthesizing end of season (EOS) wheat conditions as of July 28th. Crop conditions over the main growing areas are based on a combination of inputs including remotely sensed data, ground observations, field reports, national, and regional experts. **Crops that are in other than favourable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

In the Middle East and North Africa, wheat harvesting finalized across the subregion under mixed conditions. In **Morocco, Algeria, and Tunisia**, where cereal cultivation is primarily rainfall dependent, sufficient rainfall at the beginning of the season facilitated planting activities and early crop growth. However, erratic and insufficient rainfall amounts for the remainder of the season combined with hot temperatures during critical stages of crop growth intensified the effects of low rainfall, resulting in below-average yields across central, east, and northeastern **Morocco**, northwest and central-eastern **Algeria**, and north-central **Tunisia**. **Tunisia** was among the most affected areas in the region and is estimated to have experienced its worst drought in over 20 years. National yields are anticipated to fall 20 percent below the five-year average for wheat and 30 percent below-average for barley. Conversely, wheat yields are expected to be near-average in parts of the west and centre of **Morocco**, parts of the north and northeastern coast of **Algeria**, the irrigated Bizerte region in northern **Tunisia**, and **Libya**. In **Egypt**, wheat production is expected to be slightly above-average due to increased plantings, wider use of improved seed varieties, and irrigation dependent cultivation. Planting and development of main season maize as well as both summer-planted and *Nili* season (Nile Flood) rice continues under favourable conditions. However, minor planting delays, likely due to delays in the previous winter cycle in some provinces, may result in a slight reduction in crop production.

In the Middle East, persistent seasonal dryness impacted yields in the main producing wheat governorate of Hassakeh in northeastern **Syria**, northwestern **Iraq**, and north-central and northeastern parts of **Iran**. Furthermore, production in **Syria** is still expected to be below pre-conflict levels, resulting in poor conditions throughout the country despite generally favourable agro-climatic performance in areas outside of Hassakeh. In **Iran**, drought conditions resulted in localized crop failure in Golestan and Khorasan governorates located in the northeast, and localized parts of Ardebil governorate located in the northwest also ended the season with below-average biomass. Rice crops are in vegetative to reproductive stage for harvest from mid-August under favourable conditions.

Southern Africa



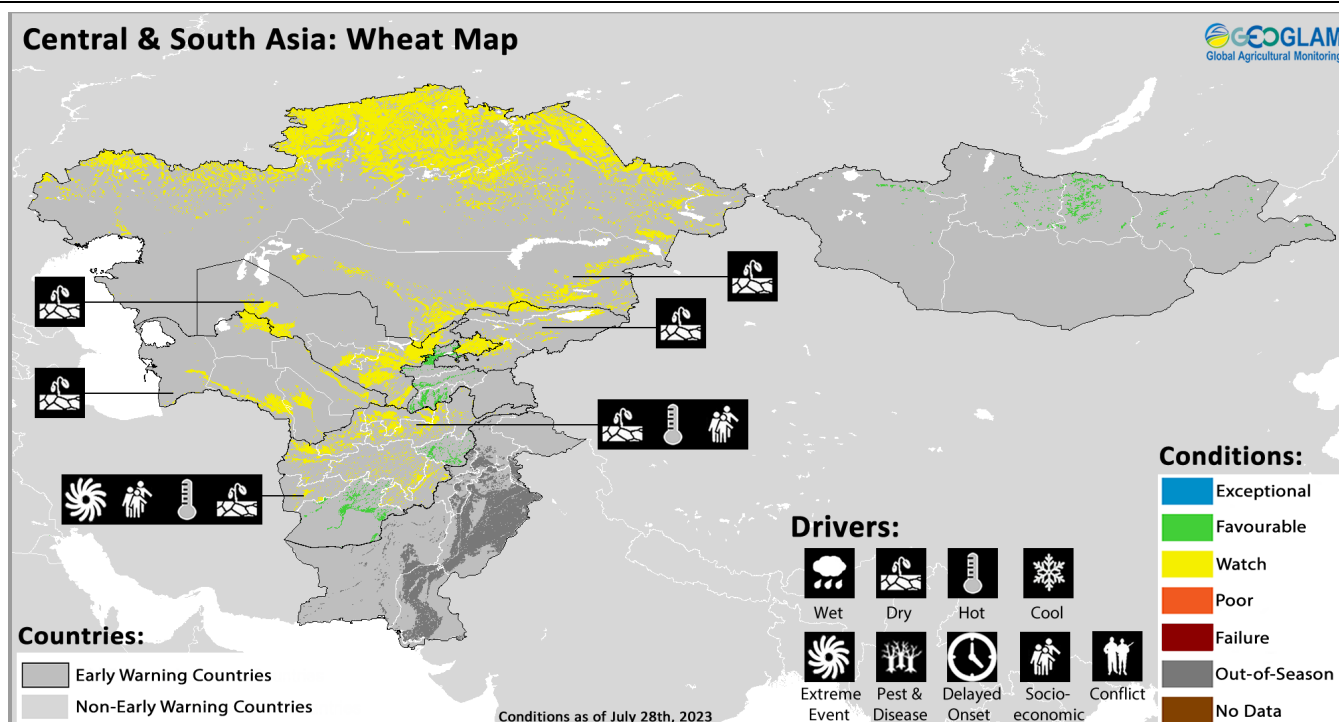
Crop condition map synthesizing wheat conditions as of July 28th. Crop conditions over the main growing areas are based on a combination of inputs including remotely sensed data, ground observations, field reports, national, and regional experts. **Crops that are in other than favourable conditions are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

In Southern Africa, harvesting of main season cereals finalized last month across the subregion under mixed conditions due to extended dry periods with above-average temperatures in some central and western areas. In **South Africa**, maize production is expected to be the second largest output on record. In **Madagascar**, harvesting finalized in July under favourable conditions as rice crops in the southeast were able to sufficiently recover from below-average rains as well as high input costs.

In the **Democratic Republic of the Congo**, planting and development of main season cereals is underway while harvesting of second season maize is nearing completion. Overall conditions remain favourable despite uneven seasonal rainfall distribution in the east, which resulted in localized areas of below-average vegetation conditions, as well as erratic rainfall in the north over the past month. However, violence in the east continues to cause population displacements and is likely to impact the agricultural participation of households during the next agricultural season. Additionally, in parts of the northeast and centre, some of the population in conflict-affected areas were able to access their fields to participate in the ongoing second season harvest. Nonetheless, harvest amounts are slightly reduced due to insecurity.

Wheat crops are in the vegetative to reproductive stage in **Zambia, Zimbabwe, South Africa, and Lesotho**, and overall conditions remain favourable. In **South Africa**, wet conditions over the southern half of the country are conducive to crop development, and above-normal precipitation over the summer rainfall region is supporting irrigated wheat production over the interior. National production is expected at an above-average level but slightly lower than the previous year due to reduced plantings.

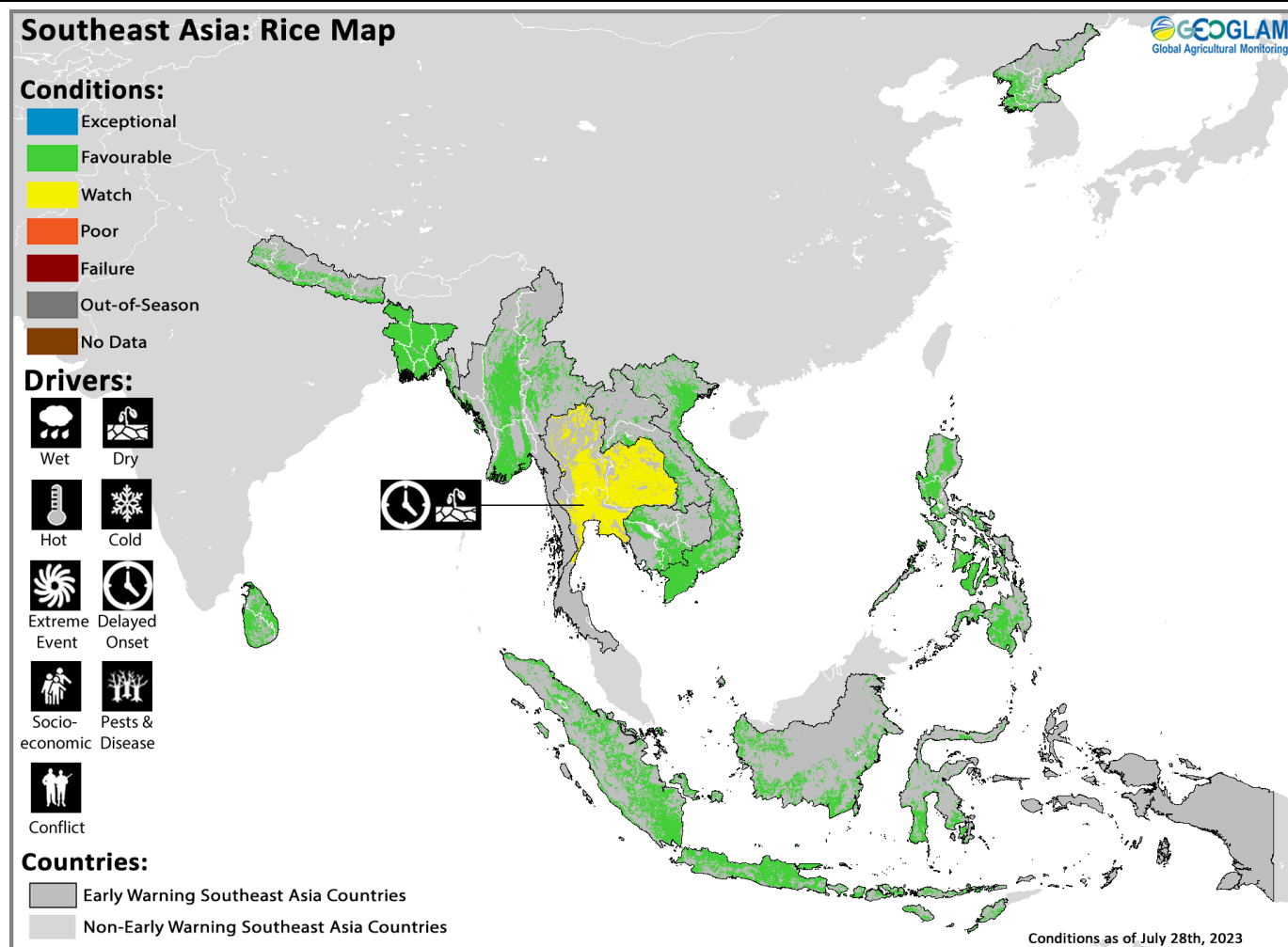
Central & South Asia



Crop condition map synthesizing wheat conditions as of July 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.**

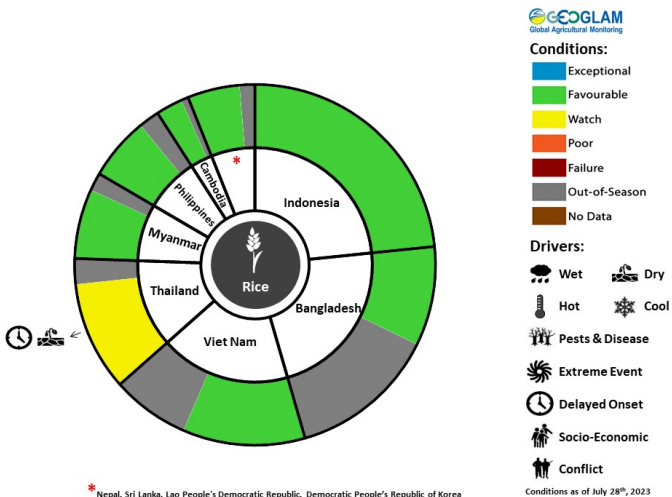
In Central and South Asia, wheat development and harvesting continues throughout **Turkmenistan, Uzbekistan, Kazakhstan, Kyrgyzstan, Tajikistan, Afghanistan, and Mongolia** under mixed conditions. Concern remains in **Turkmenistan, Uzbekistan, Kazakhstan, Kyrgyzstan**, and most of **Afghanistan** due to continued dry conditions following poor rainfall performance from March to May in most areas in combination with antecedent dry conditions in **Turkmenistan** and southwestern **Uzbekistan**. Conversely, conditions remain favourable in **Tajikistan** and have improved in parts of central-east and southern **Afghanistan** due to improved rains. In **Kazakhstan**, winter wheat harvesting is nearing completion in the south, and currently below-average rainfall and dry soils are causing concern for potential yield declines. Rainfall from early January has been generally low and irregular, and crop biomass is below-average in Jambyl and Almatin governorates located in the southeast. Conversely, vegetation conditions are near-normal in Yujno governorate located in a minor portion of the southwest, likely due to sufficient irrigation. Spring wheat crops continue to develop for harvest from August with ongoing dry concerns. Despite rainfall improvements from mid-June through July in Kustanay and Severo governorates located in the north centre, crop biomass remains below-average as a result of previous dry conditions and heat stress earlier in the season. Despite recent rainfall improvements in **Kyrgyzstan**, crop biomass has been below-average since April, including in the main producing region of Chuy located in the north. In **Afghanistan**, wheat harvesting is nearing completion with concern in most areas due to generally below-average cumulative rainfall amounts received. Following three years of consecutive agricultural drought, limited ground water reserves are now being extracted for irrigation purposes, and some regions are experiencing a decline in the water table and water quality. Higher production costs resulting from ground water extraction make it difficult for farmers to compete with imported commodities from neighboring countries. Conversely, recent rains have resulted in crop recovery in parts of the central east and southeast where conditions are now favourable. However, the rains also resulted in localized destruction to standing crops and irrigation infrastructure, and additional flooding could occur as the current El Niño event is expected to bring above-average precipitation to the country (See Climate Influences Pg. 3). Additionally, small areas in the higher elevations of the country have not yet been harvested. In **Mongolia**, conditions are generally favourable except in some localized eastern areas where below-average precipitation has resulted in crop losses. In **Pakistan**, planting of *Kharif* (summer) season maize and rice crops continues under favourable conditions despite heavy rains and flash floods which have affected various regions of the country during the start of the monsoon season from mid-June, particularly in provinces such as Punjab, Khyber Pakhtunkhwa, Balochistan, and Azad Jammu and Kashmir.

Southeast Asia



Crop condition map synthesizing rice conditions as of July 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 the tillering to maturing stage under generally favourable conditions except in **Thailand** where delayed rains and dry conditions continue to impact crop development (See Regional Outlook Pg. 14). The start of this year’s rainy season was late in northern areas of the subregion, resulting in likely delays to planting work. As a result, the total planted area is expected to decrease compared to the previous year due to a shortage of agricultural water supply. While growing conditions are currently good, there are concerns regarding the impact of delayed planting on final yield outcomes. In **Indonesia**, harvesting of wet-season rice finalized in July under favourable conditions with a total harvested area of 6.1 million hectares, which is marginally lower than the last wet season. Yield is expected to be good due to sufficient irrigation water supply and sunlight levels during the flowering phase. Planting of dry-season rice continues into the fourth month with a total planted area of 3.5 million hectares, which is also marginally lower than the last dry-season. Growing conditions are favourable due to sufficient irrigation water supply, particularly in the northern producing areas. However, August to October rainfall is likely to be below-average (See Regional Outlook Pg. 14). In the **Philippines**, wet-season rice planted from April to May is now in the maturing stage under favourable conditions as the country experienced conducive weather outcomes from late June through early July. The passage of Tropical Depression Dodong brought significant rainfall during the first week of July, but no crop damage has been reported. Near to above-normal rainfall conditions forecast through the end of July are expected to benefit growing conditions for most provinces (See Regional Outlook Pg. 14). In **Thailand**, wet-season rice is in the tillering stage, and concern remains due to delayed rains and ongoing dry conditions. About



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

40 percent of the planned area has been planted, which is less than the previous year due to limited rainfall received from May to June. While rainfall performance improved in July, below-average precipitation continued to impact some north and western areas. Additionally, high temperatures in the north could exacerbate dry conditions and lead to crop damage, and further below-average rainfall is expected for the August to October period (See Regional Outlook Pg. 14). Some fields have been abandoned or switched to other higher earning crops such as cassava and sugarcane. Yield is expected to decrease due to drought as well as a high risk of damage from pests and diseases, and production is also expected to reduce compared to last year. In northern **Viet Nam**, harvesting of winter-spring (dry-season) rice finalized under favourable conditions with an estimated yield of 6.44 tons per hectare which is 3.5 percent higher than last year due to conducive weather and better irrigation preparation. Wet-season (summer-autumn) rice is in the seeding to tillering stage under favourable conditions with adequate irrigation water supply. In the south, summer-autumn (wet-season) rice is in the young panicle forming to grain filling stage under favourable conditions. Earlier planted rice along the Mekong River Delta is now being harvested. Planting of the other wet-season (autumn-winter) rice began in July. In lowland areas of **Laos**, wet-season rice is in the seeding to tillering stage with adequate weather conditions and irrigation water supply for all regions. Planting progress has reached 70 percent of the national plan despite significant planting delays due to the late start of this year's rainy season. In upland areas, planting progress has reached 90 percent of the national plan under favourable conditions. In **Myanmar**, planting continues with a total planted area of 1.9 million hectares, accounting for 31.1 percent of the national plan of 6.07 million hectares. In the main producing Delta region, planting progress is slightly slower than the previous year due to limited rainfall and irrigation water supply. The country is still experiencing irregular rainfall conditions and high temperatures that may impact the remaining planting work. However, current growing conditions for the planted crops are favourable and planted crops are now in the tillering stage. In **Cambodia**, earlier planted wet-season rice crops are now in the flowering to grain filling stage with a planted area of 2.2 million hectares, accounting for 82 percent of the national plan. Planting and growing conditions are generally favourable due to sufficient sunlight levels. Some areas are experiencing limited rainfall, but no significant drought damage has been reported. Yield is expected to be slightly higher than the previous year, which was affected by both heavy rains in some areas and drought in other areas. In **Sri Lanka**, *Yala* season maize and rice crops are in vegetative to reproductive stage for harvest from August, and agro-climatic conditions are favourable. In **Nepal**, planting and development of main season crops continues under generally favourable conditions with an expected above-average wheat output. In **Bangladesh**, harvesting is underway for *Aus* season rice, which represents 10 percent of total rice production, and planting continues for *Aman* season rice, which accounts for 35 percent of total production. Growing conditions are favourable for both *Aus* and *Aman* season rice with adequate moisture conditions. Furthermore, harvesting of summer season maize is nearing completion while sorghum planting is underway, and overall conditions are favourable. In the **Democratic People's Republic of Korea**, main season maize and rice crops continue to develop under favourable conditions with above-average biomass, and harvesting activities will begin next month for maize.

Regional Outlook: Below-average Aug-Oct rains forecast across Indonesia and some ongoing deficit areas of Thailand, and above-average temps likely in all areas during the same period

During June 26th to July 25th, rainfall was average to above-average in most areas— in central Myanmar, southern Vietnam, Malaysia, southeastern Cambodia, and Indonesia. Rainfall was significantly below-average in areas to the north, and in some coastal areas of Bangladesh and Myanmar. In Thailand, rainfall performance was much better during these six weeks than earlier in the season. However, below-average rainfall continued to impact some northern and western areas during this time. Hot, above-average temperatures continued in many areas. Daytime high temperatures were frequently above 35 deg Celsius in northern Thailand. Such high temperatures are capable of damaging crops, especially in combination with ongoing dry conditions such as in portions of northern Thailand. Thailand rice harvests tend to be below-average during El Niño years.

Cumulative rainfall since April 1st will likely remain below-average in northern Thailand, northern Laos, northern Vietnam, and Bangladesh for the next several weeks (Figure 1 middle-left). During late July to early August, below-average rainfall is likely in northern Thailand, eastern Vietnam, and Indonesia, based on GEFS and ECMWF forecasts from July 27th. August to October rainfall will likely be below-normal in Indonesia, according to most international forecast ensembles, as well as in some of the ongoing deficit areas in Thailand, based on NOAA's new hybrid C3S/machine-learning-based forecast system (Figure 1-middle-right) and a similar outlook from the NMME. Models strongly agree that temperatures will be above-normal across the region during that time (Figure 1-right).

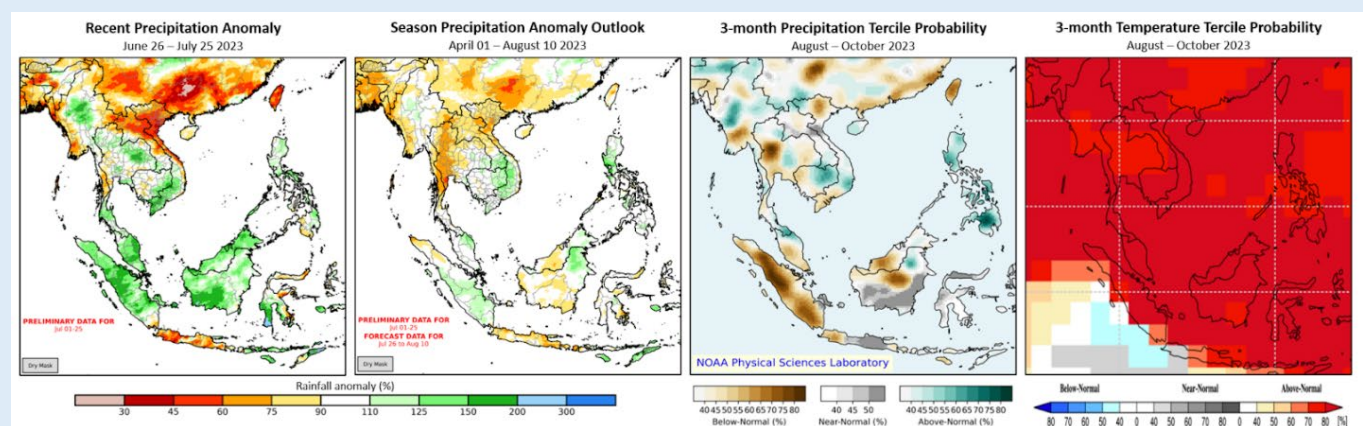
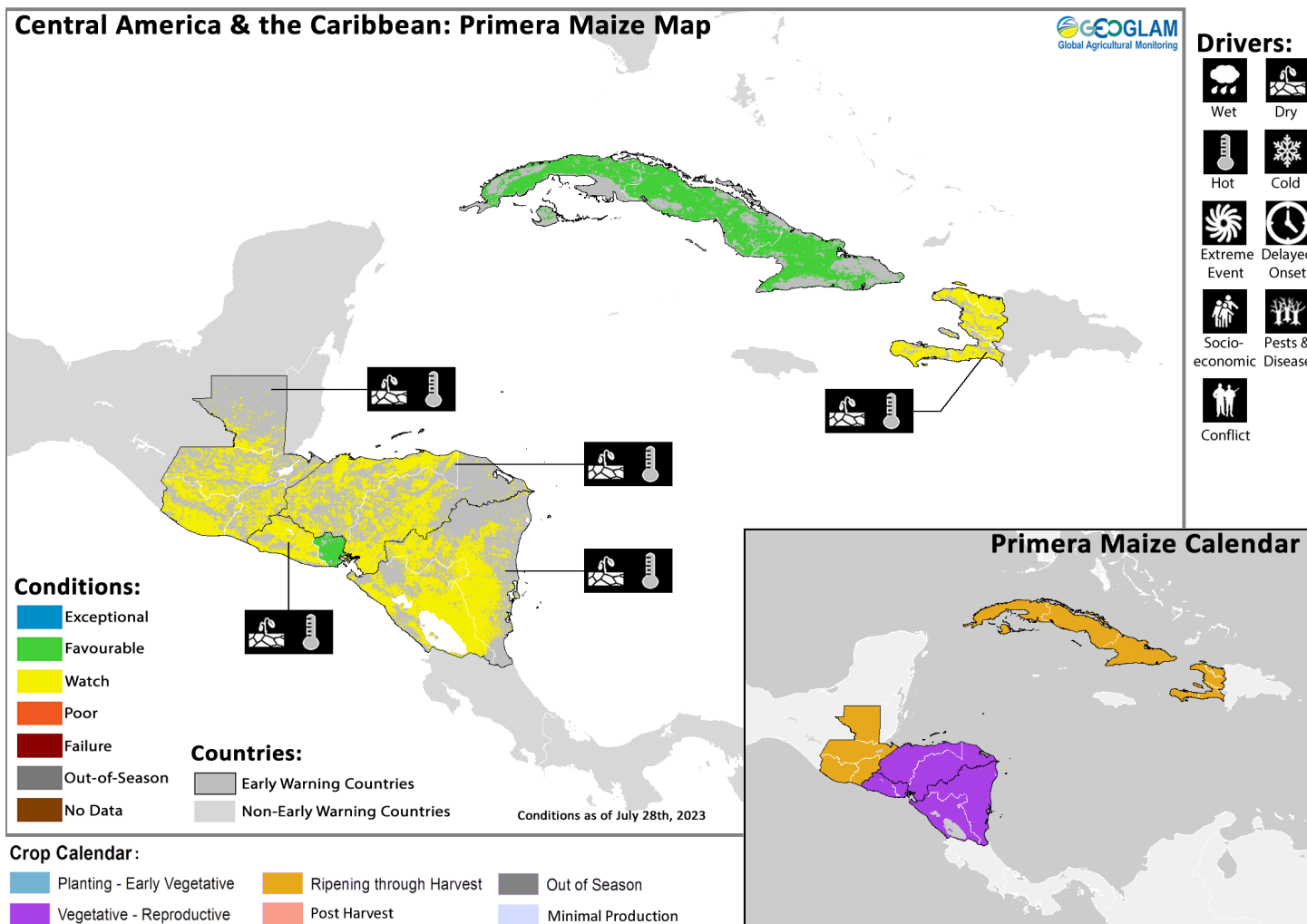


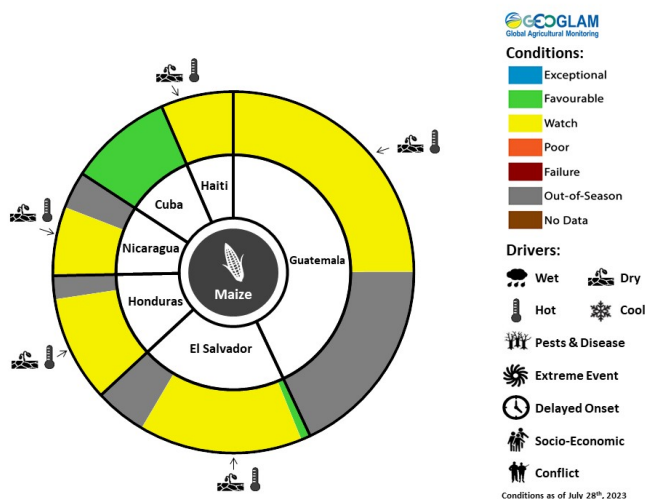
Figure 1. A recent rainfall anomaly, a seasonal rainfall anomaly outlook, and 3-month probabilistic rainfall and temperature forecasts. Left and middle-left: The left panel is a CHC Early Estimate, which compares current precipitation totals to the 1981-2022 CHIRPS average for respective accumulation periods. It shows the percent of average precipitation for April 1st to June 25th, 2023, using CHIRPS Prelim for June 1st to 25th. The middle-left panel shows the number of days this season, from April 1st to June 20th, in which the daily temperature max exceeded 38°C/100°F. Based on NOAA CPC data. Middle-right and right: Probabilities of above and below-normal August to October 2023 rainfall (middle-right) and 2m temperature (right). Forecasts from [NOAA PSL Experimental Forecasts](#). Source: UCSB Climate Hazards Center

Central America & Caribbean



Crop condition map synthesizing Primera Maize conditions as of July 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 cereals is just beginning in **Guatemala** while crops continue to develop in **El Salvador, Honduras, and Nicaragua** for harvest from August. There is concern in almost all regions as below-average and erratic rains and high temperatures since late 2022 are impacting crop development, leading to a reduction in agricultural water availability. Rainfall totals are among the lowest in 42 years across much of **Guatemala**, western **El Salvador**, and parts of northern **Honduras**, and a dry spell in July could worsen the extent and magnitude of damages (See Regional Outlook Pg. 17). Areas of eastern **Guatemala, El Salvador, and Honduras** have reported negative impacts on crop development and losses of staple crops. Furthermore, some farmers have decided not to plant due to uncertainty of future rainfall performance and potential losses. Overall, there is a risk of decreased yields for the *Primera* season, especially for small-scale producers. To increase the production capacity of smallholder farmers, the governments of each country are distributing free seeds and/or fertilizers to offset high input costs as well as anticipation of drought conditions related to the recent transition to an El Niño event (See Climate Influences Pg. 3). This year's eastern Pacific and Atlantic hurricane season are likely to be above-normal and near-normal, respectively, with a risk of major storms and high rainfall through November (See Regional Outlook Pg. 17). As of late July, there is an area of low pressure in the Central Tropical Atlantic with a high likelihood of becoming a tropical depression or storm. The system is then expected to move northwestward initially before turning northward over the central subtropical Atlantic. Increased rains in recent weeks across some areas, including northwest and



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

eastern **Nicaragua** and **Haiti** (See Regional Outlook Pg. 17) as well as additional potential rains from this weather system could lead to some crop recovery in affected regions but also increases the risk of flooding and waterlogging with the current dry soils.

Guatemala is experiencing an erratic and dry rainy season, receiving less than a quarter of typical rainfall in the last three months, and crop conditions in the north are particularly concerning. Many areas have been impacted by low rainfall totals, and southern coastal and northern areas received only half of typical rainfall amounts from April to July (See Regional Outlook Pg. 17). A recent joint analysis of the El Niño phenomenon suggests that a third of the country may encounter a rainfall shortage in the upcoming months, posing a risk to nearly 289,000 hectares of maize and bean crops. However, the recent movement of weather systems from the east are forecast to continue through early April 2024, which could help to reduce soil moisture deficits and could benefit cropping outcomes for medium and large-scale farms. Field information from UCSB/USGS/FEWSNET indicates that recent rainfall helped to reduce crop losses in the eastern departments of Zacapa, El Progreso, and Jalapa, especially for medium to large-scale farms. In these areas, some small-scale farmers sowed two or more times due to the irregular distribution of rainfall received. In **El Salvador**, conditions are slightly better compared to the other Central American regions, though some dry areas were observed in the western tip. Conversely, eastern areas have received sufficient rainfall for adequate crop development, though some small-scale farmers have reported irregular conditions, and temperatures remain high throughout the country. In **Honduras**, conditions are below-average in the north and east but slightly better in the south. In **Nicaragua**, crop conditions are generally below-average except in some localized areas in the northwest.

In **Haiti**, harvesting of *Printemps* season cereals is nearing completion and will finalize in August. However, concern remains throughout the country as generally dry and hot conditions negatively affected vegetation development. *Printemps* season maize production is expected to be 2 percent below-average due to reduced plantings resulting from inadequate soil moisture conditions. Yields are also expected to be below-average due to low March to May rainfall amounts as well as some limited availability of agricultural inputs. High input prices, lack of public investments, and limited capacity of farmers to finance agricultural activities have reduced cultivated area. Furthermore, a 5.5 magnitude earthquake in the Grand'Anse region at the beginning of June resulted in flooding. The localized floods damaged crops in the maturation phase, which were already affected by drought conditions. Planting of second season maize and bean crops is now underway with ongoing concern due to the antecedent dry conditions. However, vegetation conditions have generally improved due to increased rains and better distribution in recent weeks. While the improvement was insufficient to prevent crop damages for the first season, crops in the second agricultural season could benefit from forecast above-average rainfall amounts from September to November (See Regional Outlook Pg. 17). In **Cuba**, harvesting of main season maize is underway while second season rice crops are in the vegetative to reproductive stage for harvest from September, and overall conditions remain favourable. There are increased chances for above-normal September to November rainfall in the east (See Regional Outlook Pg. 17).

Regional Outlook: Dry and hot season with irregular rainfall likely followed by below-average Sep-Nov rains in deficit areas of Guatemala, El Salvador, and west and central Honduras

During June 26th to July 25th, rainfall was below-average in Guatemala, El Salvador, central Honduras, central and southern Nicaragua. Above-average rainfall occurred in northwestern and eastern Nicaragua. In Haiti, rainfall was mainly average, with deficits in some southern and western locations, and surpluses in the northwest. Many areas continued to have hot, above-average temperatures during June and July.

This season has been dry and hot, with irregular rainfall. Many areas have been impacted by low rainfall totals (Figure 1-left). Nearly all of Guatemala had less than 75% of average rainfall for April 1st to July 25th. Guatemala's southern coast and northern areas received only around half of typical amounts. Rainfall in western El Salvador, northern Honduras, southern Nicaragua was between 60 and 75% of average, and less than 90% of average in most other locations. April 1st to July 25th rainfall totals are among the lowest on the 42-year CHIRPS record across much of Guatemala, in western El Salvador, and in portions of northern Honduras (Figure 1 middle-right).

Rainfall conditions are likely to worsen during the next several weeks in southern Guatemala, El Salvador, western and eastern Honduras, Nicaragua, and southern Haiti. Rainfall will be below-average in these areas, based on GEFS (Figure 1 middle-right) and ECMWF forecasts from July 27th.

September to November rainfall will most likely be below-average in many of the ongoing deficit areas in Guatemala, El Salvador, and western and central Honduras, according to a forecast from NOAA's new hybrid C3S/machine-learning-based system. NMME and WMO forecasts predict moderate chances of below-normal rainfall in eastern Honduras and Nicaragua. The outlooks are consistent with a typical drying influence of El Niño in the region, though historical outcomes and impacted locations have varied. The eastern Pacific and the Atlantic hurricane seasons are likely to produce an above-normal and near-normal number of hurricanes, respectively, so the risks of major storms and extreme rainfall will continue through November. There are increased chances for above-normal September to November rainfall in Haiti and eastern Cuba, according to forecasts, and very high chances of above-normal temperatures across the region. High temperatures are expected to continue to negatively impact soil moisture and elevate risks of heat stress.

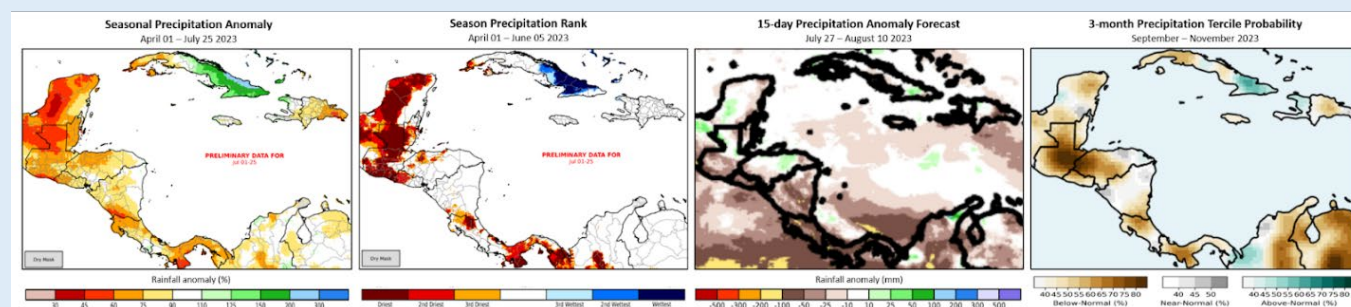


Figure 1. A seasonal rainfall anomaly, a seasonal rainfall rank, a 15-day probabilistic rainfall forecast, and a 3-month probabilistic rainfall forecast. Left and middle-left: CHC Early Estimates, which compare current precipitation totals to the 1981-2022 CHIRPS average for respective accumulation periods. Both panels use CHIRPS Prelim for July 1st to 25th. The left panel shows the percent of average precipitation for April 1st to July 25th, 2023. The middle-left panel shows how the season-to-date precipitation totals rank respectively to the CHIRPS historical record. The middle-right panel is a 15-day CHIRPS-GEFS (unbiased GEFS) forecast from July 27th, with values indicating how the forecast compares to the CHIRPS average for this period. The right-most panel is a probabilistic forecast of above and below-normal September to November 2023 rainfall from [NOAA PSL Experimental Forecasts](#). Source: UCSB Climate Hazards Center

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 slice 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 August 3rd, 2023.

i Sources and Disclaimers:

The Crop Monitor assessment is conducted by GEOGLAM with inputs from the following partners FEWS NET, JRC, WFP, ARC, AFSIS, MESA, ICPAC, FAO GIEWS, Applied Geosolutions and UMD. The findings and conclusions in this joint multi-agency report are consensual statements from the GEOGLAM experts, and do not necessarily reflect those of the individual agencies represented by these experts. More detailed information on the GEOGLAM crop assessments is available at www.cropmonitor.org

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.

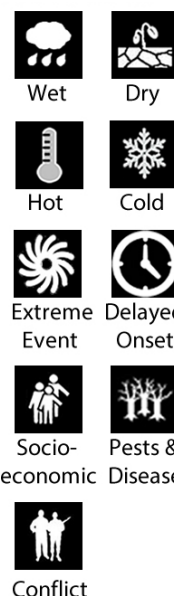
Extreme Events: This is a catch-all for all other climate risks (i.e. hurricane, typhoon, frost, hail, winterkill, wind damage, etc.)

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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