

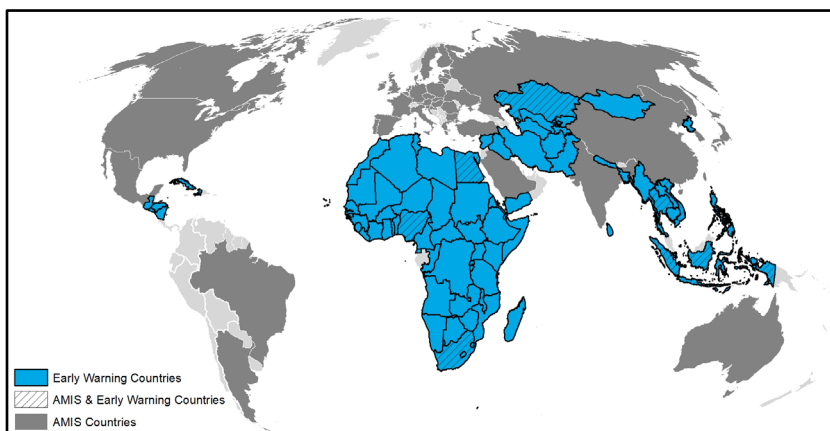


# Crop Monitor

## EARLY WARNING

**Overview:**

In **East Africa**, conditions are mostly favourable for both *Belg* and *Meher* season cereals in Ethiopia due to beneficial rains received. In the south, planting and development of main season cereals continues under mixed conditions with some improvement due to enhanced rains across parts of the region (See Regional Outlook Pg. 6). In **West Africa**, planting and development of main season cereals continues under generally favourable conditions except in parts of Mali and Guinea-Bissau experiencing delayed rains and in areas impacted by persistent conflict. In the **Middle East and North Africa**, wheat harvesting is ramping up with ongoing mixed conditions and below-average yields expected in parts of Morocco, Algeria, Tunisia, Syria, and Iraq due to persistent dryness throughout the season, and near total crop failure is expected in some localized areas. In **Southern Africa**, harvesting of main season cereals has mostly completed under mixed conditions. Crop failure has resulted in Southern Malawi due to storm damage and northern Namibia due to persistent dry and hot conditions, and dry conditions are also likely to impact yields in parts of Angola, Botswana, Zambia, and Mozambique. In **Central and South Asia**, harvesting of winter wheat is underway, and persistent dryness is causing concern in Afghanistan, Turkmenistan, and Uzbekistan. The 2023-2024 wet season is expected to be wetter than normal due to the expected shift to El Niño (See Climate Influences Pg. 3). In **Southeast Asia**, harvesting of dry-season rice is nearing completion in the north under favourable conditions except in parts of western Myanmar impacted by Cyclone Mocha. In Indonesia, harvesting of wet-season rice continues under favourable conditions. In **Central America and the Caribbean**, dry and hot conditions continue to cause concern in Guatemala, northern Honduras, eastern Nicaragua, and Haiti and are forecast to continue during the next several months with the likely development of an El Niño event (See Climate Influences Pg. 3 and Regional Outlook Pg. 15). Crops in Cuba are benefitting from abundant precipitation in April and May.



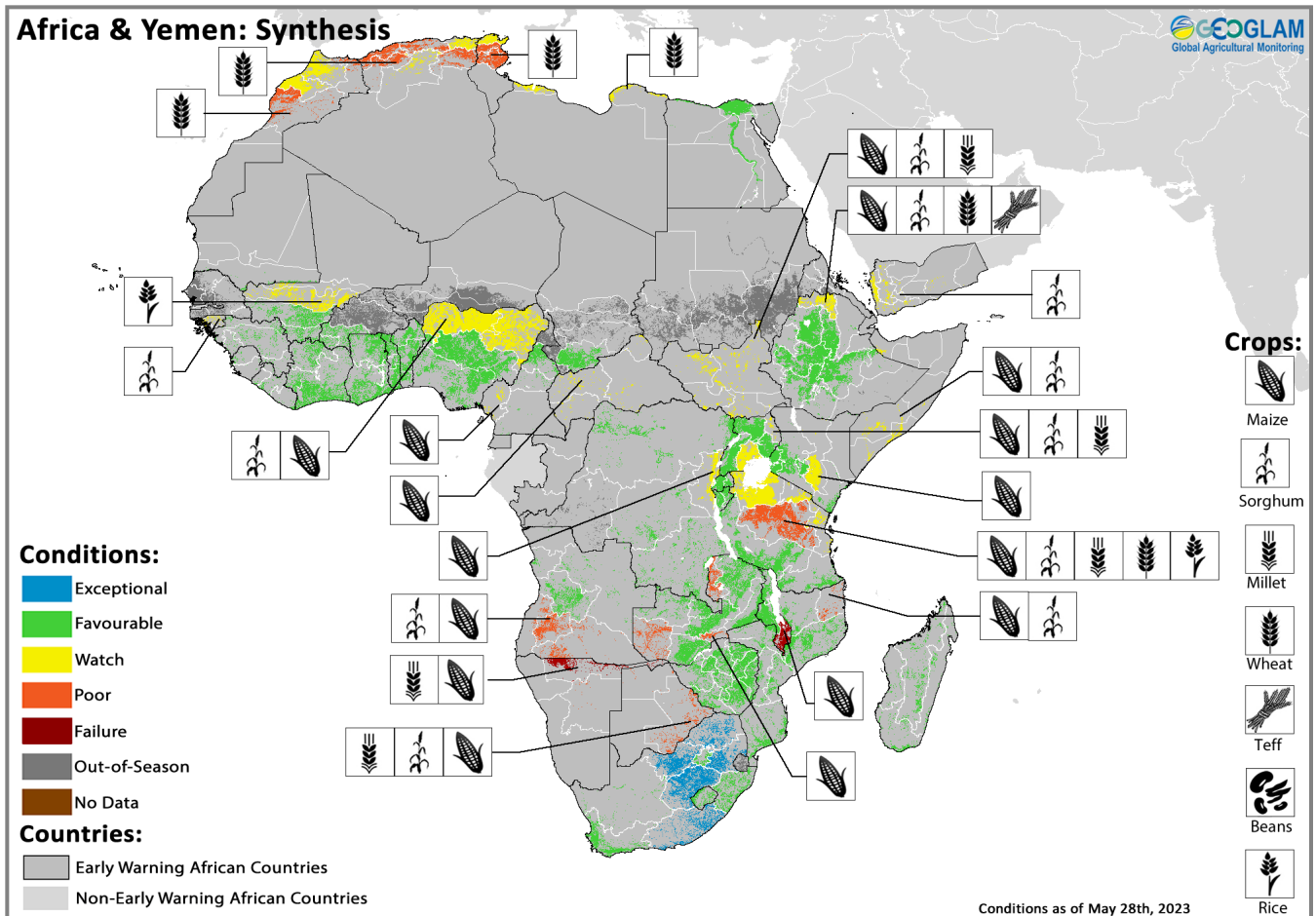
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# GEOGLAM Crop Monitor for Early Warning

## Crop Conditions at a Glance

based on best available information as of May 28<sup>th</sup>



Crop condition map synthesizing information for all Crop Monitor for Early Warning crops as of May 28<sup>th</sup>. 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 Ethiopia, conditions are mostly favourable for both *Belg* and *Meher* season cereals despite recent heavy rains and flooding in some areas. In the south, planting and development of main season cereals continues under mixed conditions with concern in areas of central Uganda, central-eastern Kenya, northwest and central Somalia, and north and central parts of the United Republic of Tanzania impacted by dry conditions. Below-normal rainfall is forecast in western equatorial areas and southern-central Ethiopia for the June to August period (See Regional Outlook Pg. 6).

**WEST AFRICA:** Planting and development of main season cereals is underway in most regions under generally favourable agro-climatic conditions except in central Mali and Guinea-Bissau where delayed rainfall onset is impacting planting activities. Additionally, conflict continues to impact agricultural activities in parts of Mali, Nigeria, Cameroon, and the Central African Republic.

**MIDDLE EAST & NORTH AFRICA:** Wheat harvesting is ramping up, and overall conditions remain mixed with below-average yields expected in parts of Morocco, Algeria, Tunisia, Syria, and Iraq. In Syria, improved rains have led to above-average crop biomass across the country, but concern remains due to persistent conflict and socio-economic challenges.

**SOUTHERN AFRICA:** Harvesting of main season cereals is complete or nearing completion in all regions under mixed conditions. Crop failure resulted in southern Malawi due to impacts

from Tropical Cyclone Freddy and in parts of northern Namibia due to dry and hot conditions this season. Poor conditions have also resulted in parts of Angola, Botswana, Zambia, and Mozambique due to persistent dryness. Elsewhere, end of season conditions are mostly favourable to exceptional.

**CENTRAL & SOUTH ASIA:** Winter wheat harvesting is ramping up, and overall conditions are mixed with concern in Afghanistan, Turkmenistan, and Uzbekistan due to persistent dry conditions. A likely shift to El Niño suggests above-average precipitation for the 2023-2024 wet season (See Climate Influences Pg. 3)

**SOUTHEAST ASIA:** Harvesting of dry-season rice is nearing completion in the north under generally favourable conditions except in western Myanmar where Cyclone Mocha impacted crops. Planting of wet-season rice is delayed in some areas due to the late rainy season. In Indonesia, harvesting of wet-season rice continues under favourable conditions.

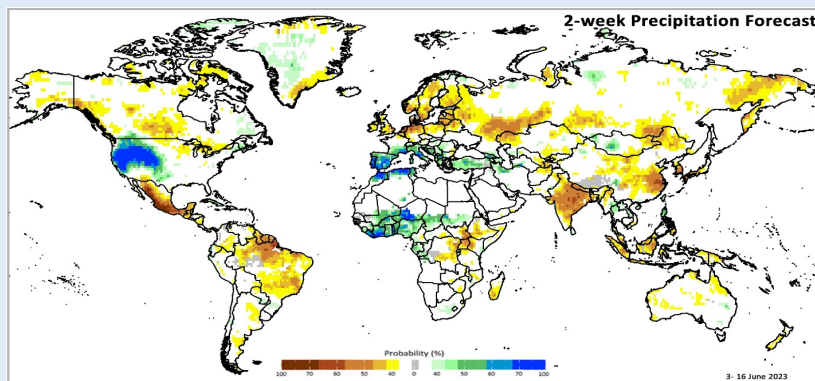
**CENTRAL AMERICA & CARIBBEAN:** Planting of *Primera* season cereals is just beginning under mixed conditions with concern in Guatemala, northern Honduras, and eastern Nicaragua where dry and hot conditions are impacting planting activities and are forecast to continue for the next several months (See Regional Outlook Pg. 15). In Haiti, persisting rainfall deficits and high temperatures continue to negatively impact *Printemps* season crop development.



### **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 western US, Portugal, Spain, southern France, Italy, Bosnia and Herzegovina, Albania, North Macedonia, Greece, Türkiye, Georgia, Armenia, northern Morocco, northern Algeria, Liberia, Côte d'Ivoire, Mali, Burkina Faso, Ghana, Togo, Benin, Niger, Nigeria, Chad, Sudan, Gabon, northwestern Iran, central Mongolia, and the northern Philippines.

There is also a likelihood of below-average rainfall over the Prairies and Eastern Canada, western and southern Mexico, Guatemala, Guyana, Suriname, French Guiana, northern and central Brazil, Ireland, the United Kingdom, Belgium, Netherlands, northern Germany, southern Denmark, Norway, Sweden, Finland, Estonia, Latvia, Lithuania, northern Poland, Belarus, northwest and central Russian Federation, eastern South Sudan, central Ethiopia, Uganda, western Kenya, the eastern Democratic Republic of Congo, southern Madagascar, western Kazakhstan, eastern Uzbekistan, western Tajikistan, northeastern Afghanistan, India, Nepal, Bangladesh, eastern Mongolia, central and northeast China, the Republic of Korea, southern Japan, southern Philippines, Malaysia, and Indonesia.



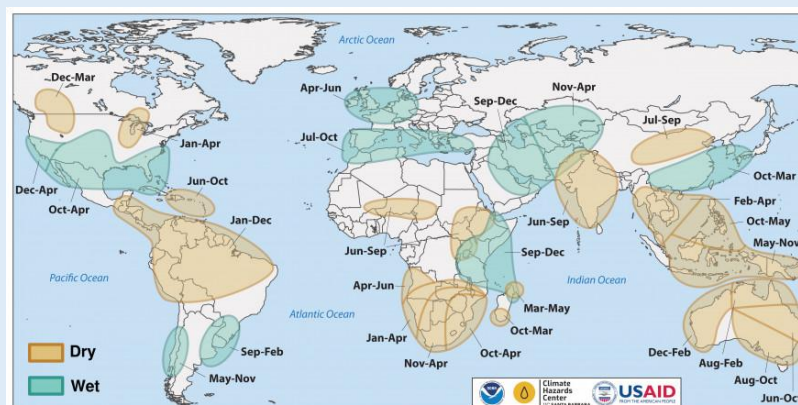
**Figure 1.** IRI SubX Precipitation Biweekly Probability Forecast for 3 – 16 June 2023, issued on 26 May 2023. The forecast is based on statistically calibrated tercile category forecasts from three SubX models. Source: [IRI Subseasonal Forecasts Maproom](#)

### **Climate Influences: ENSO currently in neutral state with a likelihood of El Niño and positive IOD conditions developing during June to September**

The El Niño-Southern Oscillation (ENSO) is currently in a neutral state. El Niño conditions are forecast to develop during the next several months and continue into 2024. According to the IRI/CPC forecast, there is around a 90% chance of El Niño conditions developing during June to September, and these odds remain high through December 2023 to February 2024 (>90% chance). Models predict that, if this El Niño event develops, it will likely be a moderate or strong event by its peak during the northern hemisphere fall and winter.

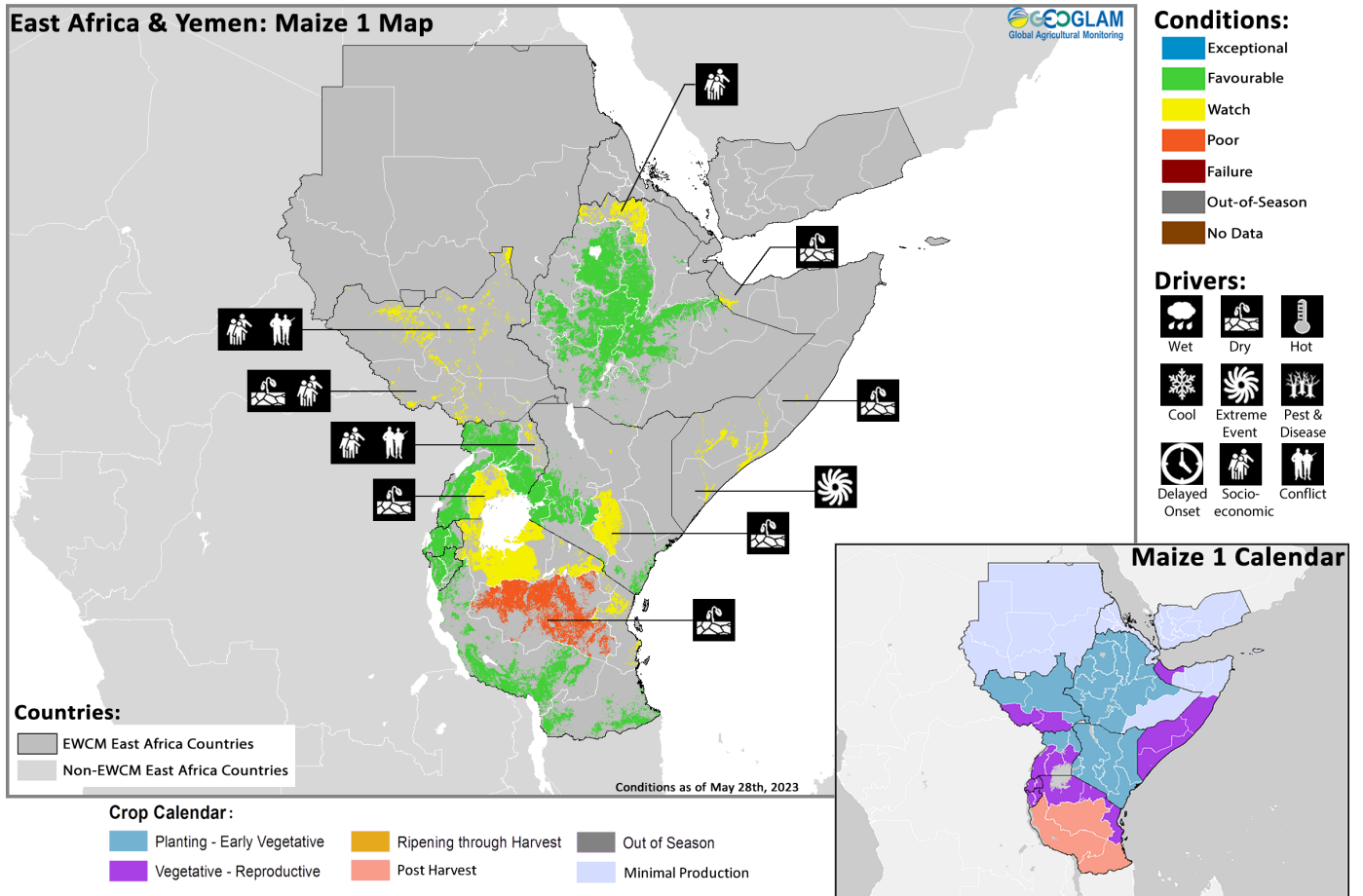
El Niño events tend to enhance rainfall in Central Asia, southern North America, south-eastern South America, southern Europe, eastern and southern East Africa, and southern and eastern China. Drier-than-average conditions tend to occur in Central America, the Caribbean, northern South America, parts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

Positive Indian Ocean Dipole (IOD) conditions may also develop during June to October, according to the Australian Bureau of Meteorology forecast. Positive IOD conditions can enhance El Niño-related drying influences in Australia and the Maritime Continent, and wetting influences during the East Africa short rains. Source: [UCSB Climate Hazards Center](#)



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

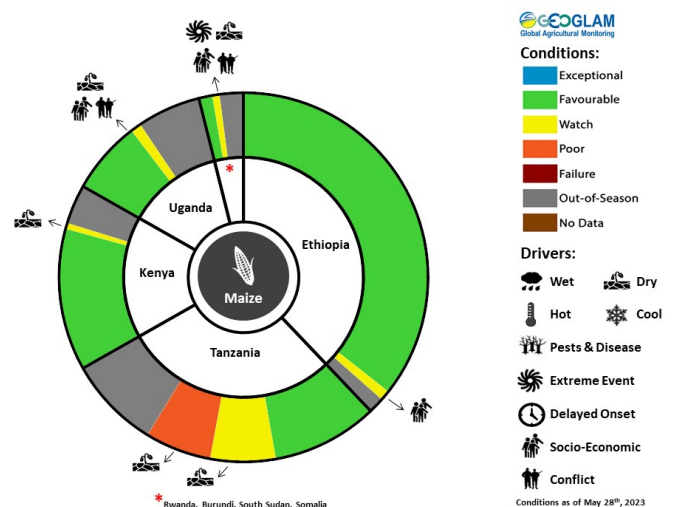
East Africa



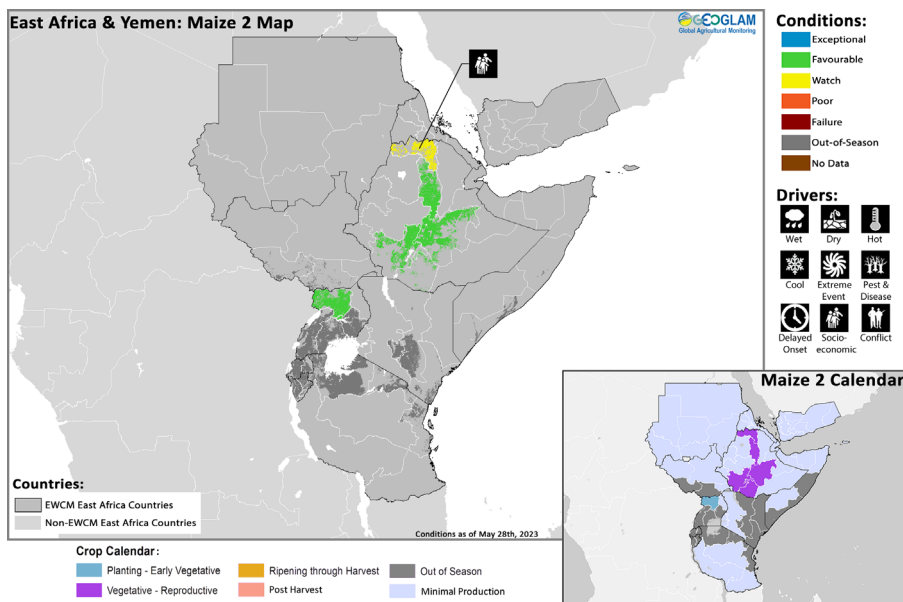
Crop condition map synthesizing Maize 1 crop conditions as of May 28<sup>th</sup>. Crop conditions over the main growing areas are based on a combination of inputs including remotely sensed data, ground observations, field reports, national, and regional experts. **Conditions that are other than favourable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

Across the north of the subregion, planting and development of main season cereals is underway in **South Sudan** and **Yemen** with concern in the Central and Western Equatoria regions of **South Sudan** due to dry conditions and throughout **South Sudan** and **Yemen** due to ongoing conflict and socio-economic challenges. In **Ethiopia**, *Belg* season maize crops are in vegetative to reproductive stage for harvest from June while planting of *Meher* season cereals is underway, and conditions are mostly favourable for both *Belg* and *Meher* crops despite recent heavy rains that resulted in flooding in Somali, Oromia, and Afar regions.

Across the south of the subregion, main season cereals continue to develop in **Uganda**, **Kenya**, **Rwanda**, **Burundi**, **Somalia**, and the **United Republic of Tanzania** under generally mixed conditions with some improvement due to enhanced rains. However, there is concern in areas impacted by dry conditions, including central **Uganda**, central-eastern **Kenya**, northwest and central **Somalia**, and north and central parts of the **United Republic of Tanzania**. There is also concern in southern **Somalia** where heavy rains since March through May has resulted in widespread flooding along the Shabelle and Juba riverine areas, and heavy rainfall in early May impacted the western Rift. The May 24 Statement from the 64th Greater Horn of Africa Climate Outlook Forum (GHACOF64) June to September (JJAS) rainfall forecast indicates a higher likelihood of dry conditions in several areas, including **Djibouti**, **Eritrea**, central and northern **Ethiopia**, western **Kenya**, northern **Uganda**, **South Sudan**, and **Sudan**. Conversely, coastal regions of **Kenya**, parts of **Somalia**, isolated areas in eastern **Ethiopia**, southern **Uganda**, and areas along the **Ethiopia** and **Sudan** border are likely to experience wetter than average conditions (See Regional Outlook Pg. 6).



For detailed description of the pie chart please see description box on Pg. 16.



Crop condition map synthesizing Maize 2 conditions as of May 28<sup>th</sup>. 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.**

planting of first season cereals continues under mixed conditions with concern in Central and Western Equatoria areas due to expanding dry conditions. Concern also remains throughout the country due to socio-economic issues relating to agricultural input access as well as ongoing pockets of conflict, including in the Nile Sobat region located in the northeast. In **Yemen**, planting of sorghum crops continues under favourable agro-climatic conditions. However, socio-economic challenges relating to conflict continue to impact agricultural activities throughout the country. Additionally, heavy rainfall in early April resulted in flooding along localized areas of the south, centre, and west. Further heavy rainfall in early May flooded fields and resulted in large dam failures.

### Southern East Africa

In **Uganda**, development of first season cereals continues under mixed conditions. Conditions in the central region are drier than average compared to the rest of the country, and there is concern in Karamoja region located in the northeast where recent conflict and related socio-economic issues are impacting planting. In **Kenya**, development of Long Rains cereals continues in all regions under generally favourable conditions except in the minor bimodal central-eastern area where ongoing dry conditions are impacting crops. Additionally, southeastern areas of the country along the coast received little to no rainfall in March, and limited rains through May could shorten the growing period if the rains do not pick up. In **Rwanda**, Season B maize crops continue to develop under favourable conditions, and harvesting will begin in June. In **Burundi**, Season B maize and rice crops are developing under favourable conditions for harvest from July. In **Somalia**, *Gu* season maize and sorghum crops are in vegetative to reproductive stage for harvest from mid-July with concern in the west and centre where dry conditions are impacting crop development and in the southern Shabelle and Juba riverine areas impacted by flooding. The April to June *Gu* rains started earlier than usual with slight to moderate rains in March which intensified in April. The early start to the rains in combination with water flows from heavy rains in the Ethiopian highlands resulted in flooding in many areas, including Bardhere, Hirshabelle, Galmudug, Puntland, South West State, Mogadishu, and the broader Banadir region. In northern bimodal areas of the **United Republic of Tanzania**, harvesting of *Masika* season cereals is underway while *Vuli* season sorghum crops continue to develop, and concern remains due to ongoing dry conditions. In central and southern unimodal areas, harvesting of *Masika* season cereals is nearing completion under mixed conditions due to persistent dryness in the centre where below-average yields are expected. While some areas in the north and centre received recent favourable rains that improved soil moisture, below-average rainfall performance in May could affect growing conditions.

### Northern East Africa & Yemen

In **Ethiopia**, *Belg* season maize crops are in vegetative to reproductive stage while planting of *Meher* season cereals is now underway, and conditions remain generally favourable due to good rains received. However, residual socio-economic challenges related to the prior conflict situation continue to impact agricultural activities in Tigray region and other localized areas. Additionally, heavy rainfall and significant flooding occurred in some areas from mid-March (See Regional Outlook Pg. 6). In the Somali region, floods caused the destruction of approximately 99,713 hectares of farmland and the deaths of 23,306 livestock, according to data from the Disaster Risk Management Bureau, impacting the region's agricultural sector and primary livelihoods. The floods also caused significant damage to crops in Oromia region and resulted in livestock losses in SNNPR region. In **South Sudan**,



### ***Regional Outlook: Mixed rainfall likely to continue across the region with rainfall deficits expected across parts of Kenya, Uganda, South Sudan, and Ethiopia***

During recent weeks, between April 21st and May 20th, conditions were wetter than average in central and northeastern Ethiopia, across most parts of Kenya (central, northern, eastern and coastal Kenya), southwestern and northwestern Somalia, and in northeastern and western Tanzania. Conditions were drier than average in northwestern areas of the region and in southeastern and central Somalia (Figure 1-left).

Rainfall totals for March to early June will likely be mixed, with prominent surplus areas in Kenya and Ethiopia, and below-average totals in some western and eastern areas, based on preliminary data for May 1-20th and a two-week unbiased GEFS forecast (Figure 1 middle-left). Seasonal rainfall has been irregularly distributed in portions of central and southern Somalia, with high rainfall in March and late April, and multi-week periods of drier conditions, including several weeks of below-average rainfall in May.

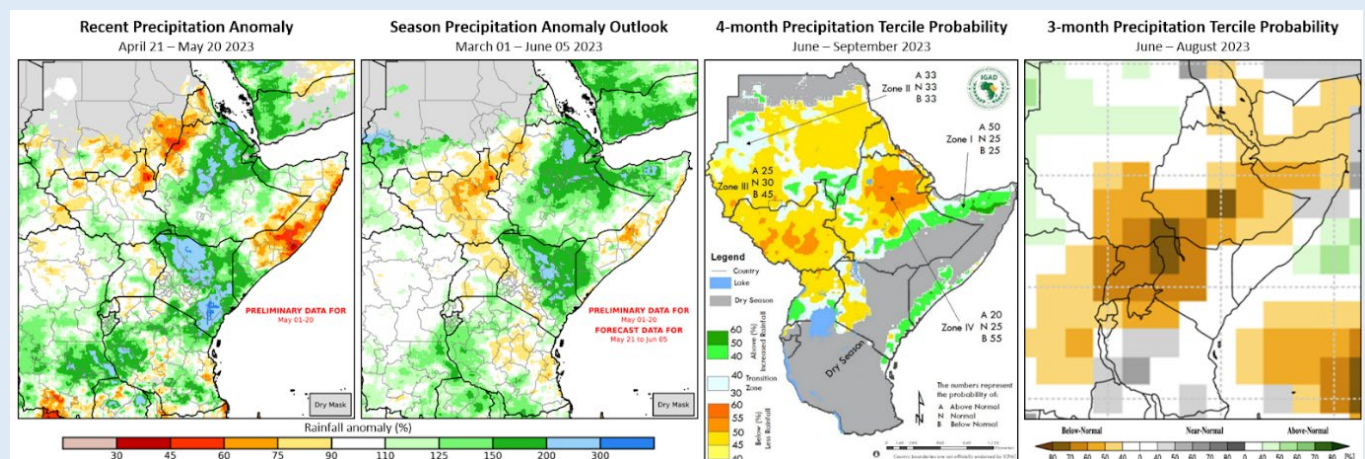
During the next two weeks, forecast below-average rainfall in western equatorial areas and South Sudan is of some concern, as conditions were drier than average earlier in May. This could result in a lengthy dry spell, or more substantial seasonal rainfall deficits if pessimistic forecasts for June to September also materialize.

Forecast above-average rainfall in the Ethiopian Highlands and central and northeastern Somalia during late May raises concerns for continued elevated flood risks locally and in areas along the Shabelle River. River levels are close to bankfull level in Buloburti, as of May 24th, according to FAO SWALIM, and destructive flooding occurred in Belet Weyne earlier in May. Flood and landslide risks will likely remain high in many locations of central and northeastern Ethiopia, where highly above-average rainfall occurred in the past two months. Based on preliminary data, March 1st to May 20th rainfall totals are among the [wettest on the CHIRPS record](#) in some of these locations, as well as in portions of northern Kenya and southwestern Somalia. Above-average rainfall is also forecast through early June in northern Somalia, coastal Kenya, northeastern Tanzania, and western Sudan.

Rainfall deficits are likely to be an ongoing concern during June, July, and August, for cropping areas in western Kenya, northern and southwestern Uganda, South Sudan, and southwestern, central, and northern Ethiopia. The GHACOF64 forecast for June to September (JJAS) rainfall (Figure 1 middle-right) shows 40 to 55% chances of below-normal rainfall in many of these areas. Other multi-model ensemble forecasts, e.g. the WMO (Figure 1-right), NMME, and C3S, are also pessimistic for June to August, particularly for western equatorial areas and southern-central Ethiopia. Below-normal rainfall has previously occurred in these areas during concurrent El Niño conditions, which are forecast to develop.

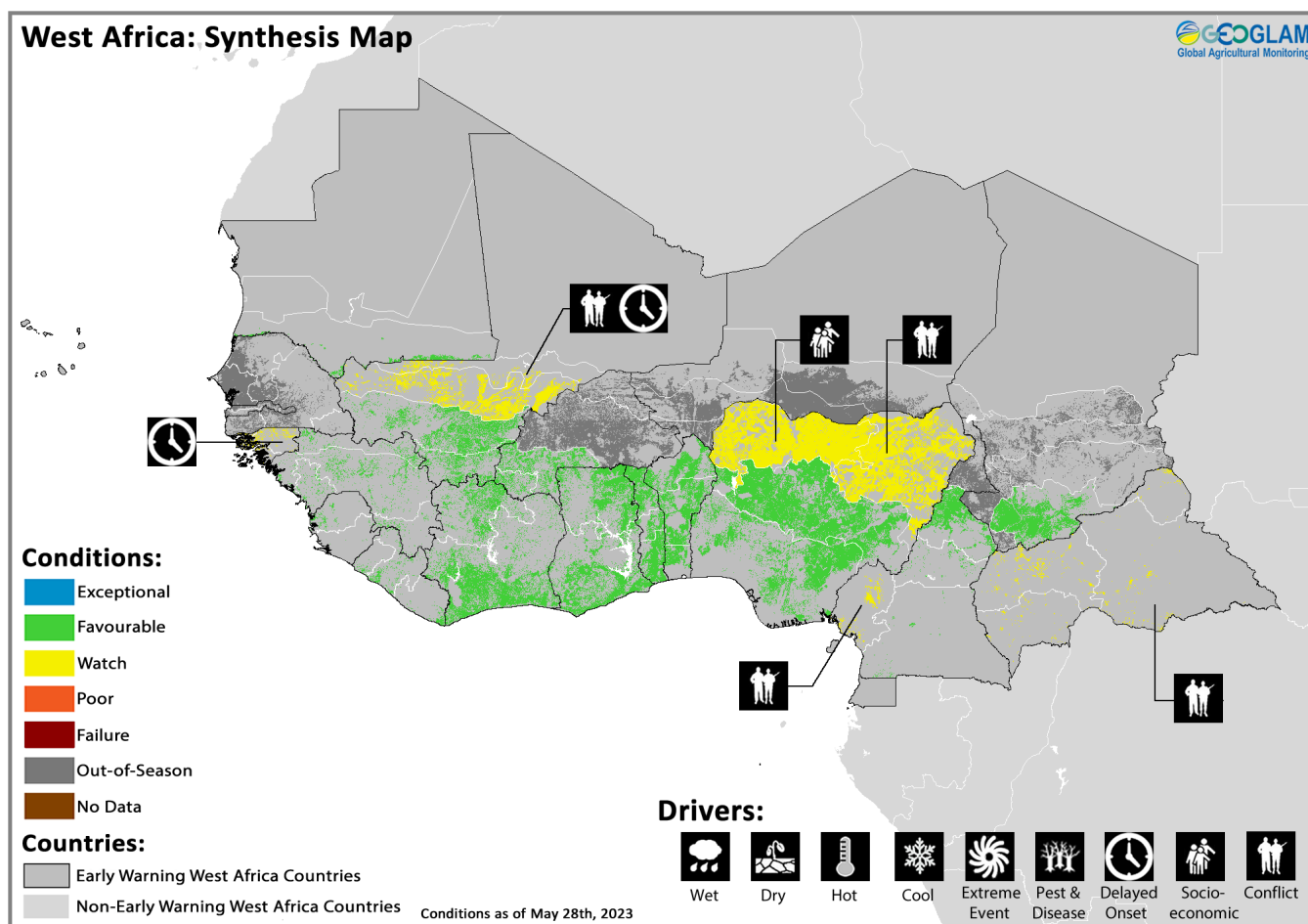
Monitoring of potential agricultural heat and water stress is recommended. Many areas will likely experience above-normal temperatures during the next several months, according to highly confident model forecasts. According to the GHACOF JJAS forecast, “probabilities for warmer than average temperatures are most enhanced over northern Sudan, parts of southern and central to western Ethiopia, central and northern Kenya, central and northern Somalia, and coastal parts of Tanzania.”

Multiple international model forecasts are indicating above-normal rainfall during September to December in eastern areas (Climate Influences Pg. 3), associated with forecast El Niño and positive Indian Ocean Dipole conditions. These tend to enhance rainfall in eastern and southern areas of the region.



**Figure 1. A recent rainfall anomaly, a seasonal rainfall anomaly outlook, 4-month and 3-month probabilistic rainfall forecasts.** The left and middle-left panels are 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 Apr. 21st to May 20th, 2023 (left), and for Mar. 1st to Jun. 5th (middle-left). Both panels use CHIRPS Prelim for May 1st to 20th. The middle-left panel also includes a CHIRPS-GEFS forecast for May 21st - Jun. 5th. The middle-right panel is an [IGAD Climate Prediction and Applications Centre \(ICPAC\)](#) probabilistic forecast for June-to-September 2023 precipitation. The right-most panel is a WMO probabilistic forecast for June-to-August 2023 precipitation, based on models initialized in May. This image is from the [WMO Lead Centre Long-Range Forecast Multi-Model Ensemble](#). Source: UCSB Climate Hazards Center

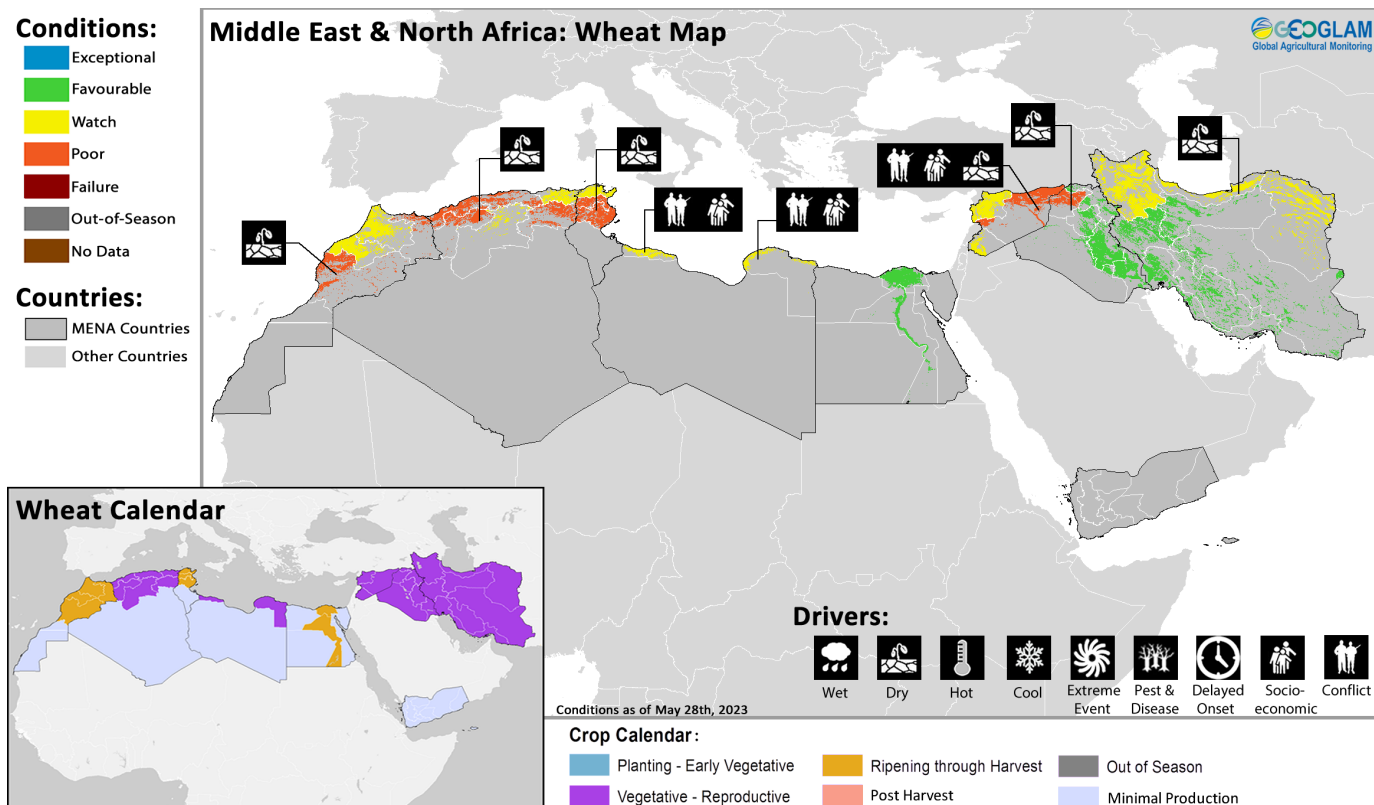
## West Africa



Crop condition map synthesizing crop conditions as of May 28<sup>th</sup>. 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, planting of main season cereals is underway in bimodal and Soudano-Guinean zones with localized areas entering the vegetative to reproductive stage in **Cote d’Ivoire, Ghana, Benin, Togo, Nigeria, and Cameroon**. Harvesting of second season rice finalized in **Mauritania** while planting is underway in central **Nigeria**. Agro-climatic conditions remain favourable for crop development throughout the subregion except in central **Mali** and **Guinea-Bissau** where delayed rainfall onset is delaying planting activities. Additionally, persistent conflict continues to impact agricultural activities in central **Mali**, northeastern **Nigeria**, southwestern **Cameroon**, and the **Central African Republic**. Ongoing socio-economic challenges relating to limited resources continue to impact agricultural production in north and north-central **Nigeria**. Additionally, based on CHIRPS total rainfall from April 1st to May 20th, the southern part of the subregion from southern **Guinea** to the **Central African Republic** has received totals ranging from 100 mm to more than 400 mm in eastern **Liberia** and southwestern **Cameroon**. Conversely, rainfall totals are less than 75 mm in the Sahelian band.

## Middle East &amp; North Africa



Crop condition map synthesizing wheat conditions as of May 28<sup>th</sup>. 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.**

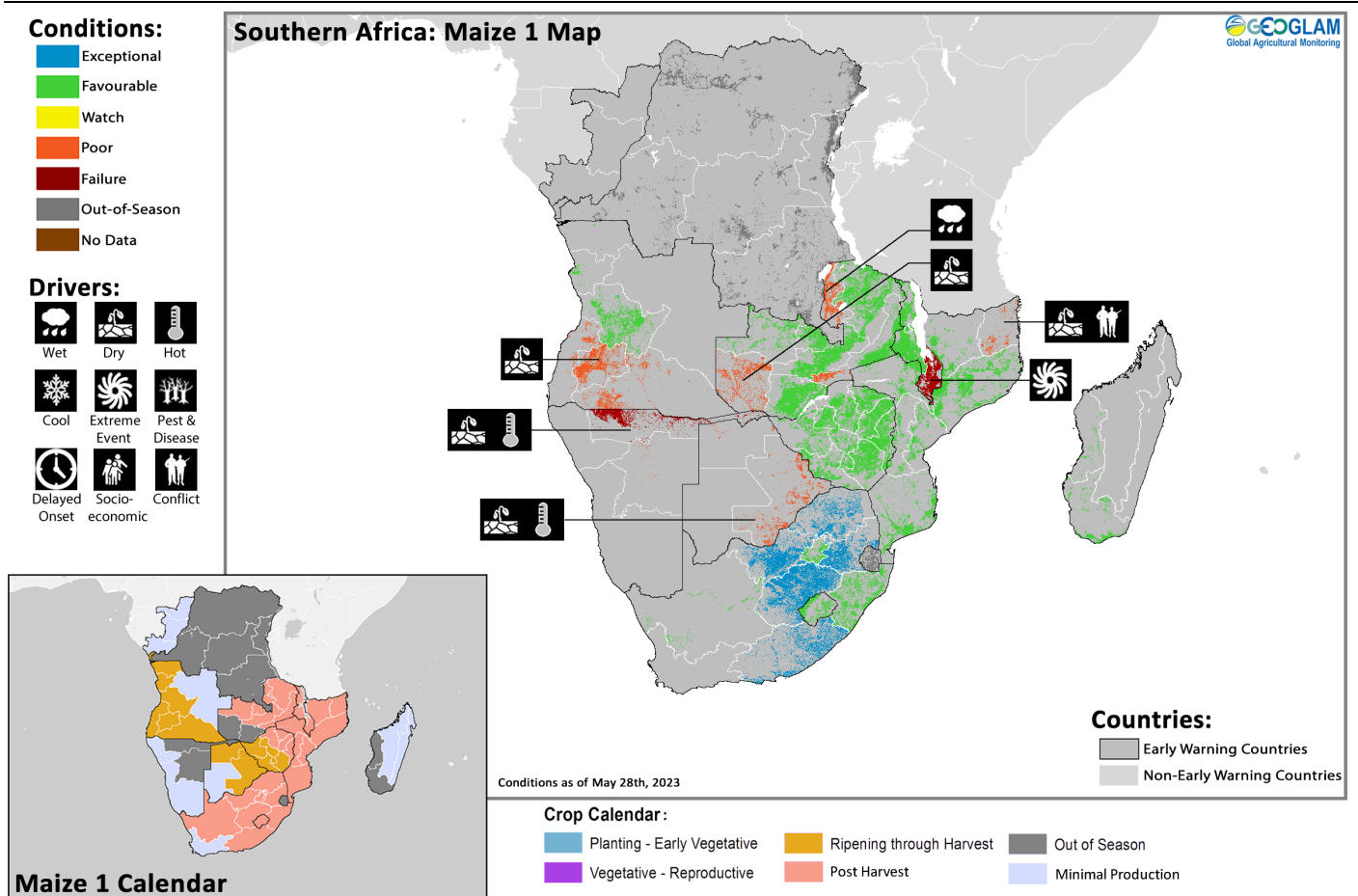
In the **Middle East and North Africa**, wheat harvesting has started in **Morocco**, **Tunisia**, and **Egypt** while crops continue to develop elsewhere in the subregion. Crop conditions remain mixed with below-average yields expected in large areas of **Morocco**, most of **Algeria** and **Tunisia**, northeastern **Syria**, and northwestern **Iraq**. Near total crop failure is expected in localized areas of northeastern **Morocco**, northern **Algeria**, and north-central **Tunisia** due to persistent seasonal drought and high temperatures. Furthermore, concern remains throughout **Libya** and **Syria** where ongoing conflict and socio-economic challenges continue to impact crop outcomes. Conversely, yields are expected to be near-average in **Egypt** due to sufficient irrigation water supply, and conditions remain favourable in most parts of **Iraq** and **Iran**.

In **Morocco**, wheat prospects remain poor due to a combination of seasonal drought and above-average temperatures that have adversely affected the vegetative to reproductive stages, accelerating crop senescence. The Oriental region located in the northeast is the most affected, with crop failure likely across much of the region. Although yield and total production prospects are poor, being 17 percent and 25 percent below the five-year average respectively, they are not as severe as the results observed in the previous season, according to the May 22 JRC MARS Bulletin. In **Algeria**, prolonged drought and high temperatures continue to adversely affect the majority of the cereal producing regions, except in the northeast, and have impacted crops during the critical flowering and grain-filling development stages. Rainfall has been limited since the start of March, with most regions experiencing record low rainfall accumulations. Temperatures have been consistently above the long-term average, particularly in western areas during late-April. Some regions, such as Mascara, Saida, Oum El Bouaghi, Khenchela, and Tebessa, face the significant possibility of complete crop failure. Both yield and production are forecast to be well below the five-year average at 24 and 45 percent lower respectively, according to the May 22 JRC MARS Bulletin. In **Tunisia**, wheat crops have been severely affected by persistent drought conditions, with rainfall occurring only in sporadic and low-intensity events, mostly in early March and the start of April. Cumulative precipitation was the lowest on record in most central and northern regions where the majority of cereal production occurs, resulting in rainfall deficits ranging from 65 to 80 percent below the long-term average. Regions such as El Kef, Siliana, and Zaghuan face a high probability of crop failure, while all other regions, except Bizerte, have observed below-average biomass accumulation. Yield is forecast to be 19 percent below the five-year average, and production is forecast to be 28 percent below-average, according to the May 22 JRC MARS Bulletin. In **Libya**, the country experienced moderate fluctuations in daily temperatures while rainfall remained generally below the long-term average, except in Nuqat al Khams and Darnah where it was 10 percent above the long-term average. Biomass accumulation is above-average in Al Aziziyah, Jabal al Akhdar, and Darnah agricultural areas and near-average in other regions. Both yield and production are expected to be relatively near-normal. In **Egypt**, conditions remain favourable for irrigated crops in the Nile valley and Delta regions, with sufficient irrigation water supply for adequate crop growth. Yield and production forecasts are expected to be close to the five-year average.



In **Syria**, near-average rainfall since March has resulted in above-average crop biomass across the country, including in the main cereal producing governorate of Hassakeh. While low rainfall from December to early March resulted in below-average crop biomass in Hassakeh, improved rains since mid-March has led to partial crop recovery. As a result, production prospects for Hassakeh remain below-average but above drought stricken 2022 levels. However, lingering pockets of conflict and related socio-economic challenges continue to impact cropping activities and outcomes throughout the country. In **Iraq**, prospects are above-average across most of the country due to good rains received since the start of the season in November 2022. However, in the southern half of Ninewa, which is the main cereal producing governorate, dry conditions from December to February negatively affected rainfed winter cereals. In **Iran**, conditions are generally favourable except in the northeastern regions of Golestan and Khorasan, the northwestern region of Ardebil, and to a lesser extent, the central regions of Esfahan and Hamedan where crop biomass is below-average due to persistent dry conditions. In northern Golestan, the extent of the planted area is reduced compared to the previous year as a result of the lowest total rainfall received in the last 32 years. Planting of rice crops is now underway, and flooding of rice fields has begun in Mazandaran and Gilan, the two primary rice-producing regions. However, in Golestan, there is a planting delay compared to previous years.

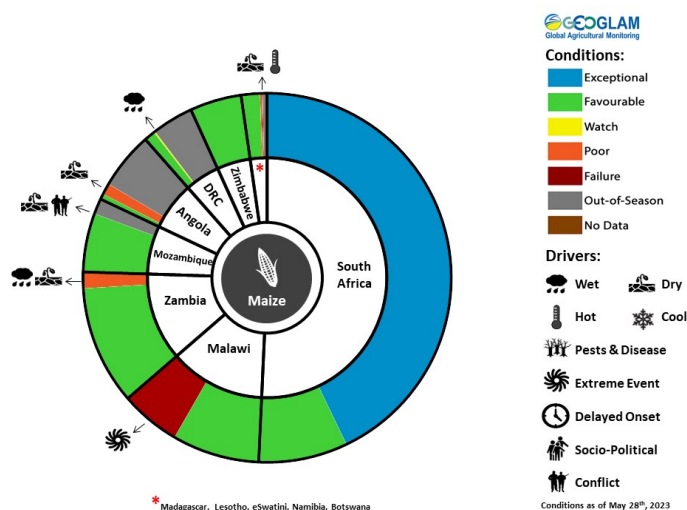
## Southern Africa



Crop condition map synthesizing Maize 1 conditions as of May 28<sup>th</sup>. 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 is complete or nearing completion in **Angola, Namibia, Botswana, Zambia, Zimbabwe, Malawi, Mozambique, Madagascar, South Africa, and Lesotho** under mixed conditions. Production prospects remain favourable and the same as the previous month in northern **Angola**, most of **Zambia**, northern **Zimbabwe**, central **Malawi**, northwest and western **Mozambique**, west and central **Madagascar**, and **Lesotho**. Conditions have improved from previous dry concerns in central **Angola**, eastern **Zimbabwe**, and northern **Malawi** and from previous storm damage in **Mozambique**, and conditions have been upgraded to exceptional in **South Africa** due to high yield and production expectations. Conversely, crop yields are expected to be well below-average in southern **Malawi** due to severe crop damage from Cyclone Freddy as well as in northern **Namibia** due to dry and hot conditions throughout much of the season. Additionally, yields are likely to be below-average in northwest and south-central **Zambia** due to impacts of heavy rains and waterlogging as well as in southern **Angola, Botswana**, western **Zambia**, and northeastern **Mozambique** due to dry conditions throughout the season and ongoing conflict in Cabo Delgado.

In **Angola**, crops along the south are unlikely to recover from persistent seasonal dryness. While vegetation conditions are near-average in Benguela, below-average production is likely in Namibe due to poor rainfall that is likely to persist into the dry season. Conversely, conditions remain favourable in the north and have improved from previous dry concerns in the centre. Despite uneven rainfall in the northern highlands, the overall season performance is near-average, indicating favourable production prospects. However, in Huila, erratic rainfall and Fall Armyworm (FAW) impacts in some western areas may lead to a slight reduction in final production. In **Namibia**, significant production declines are expected due to persistent dry and hot conditions throughout the season, and crops have failed across much of the northern cropping area. Large parts of the country, including Kharas, Hardap, Erongo, Kunene, Omusati, Oshana, Oshikoto regions and western Omaheke, are facing severe to extreme drought after the October to April 2022-2023 rainy season resulted in below-average rainfall. Notably, Ondangwa in the north is experiencing its third consecutive failed rainy season since 2019, and Karasburg in the south is experiencing drought after two years of above-average rainfall. In **Botswana**, crops are unlikely to recover from dry and hot conditions throughout most of the season. In **Zambia**, conditions along the northwest and south-central regions have degraded and crops are unlikely to recover from mid to late-season heavy rains that adversely affected crop growth. Additionally, crops in the west were impacted by erratic rainfall and overall below-average performance this season. Elsewhere, conditions remain favourable. National production is expected at 3.2 million tonnes, slightly above the five-year average. In **Zimbabwe**, conditions are favourable, and crops have recovered in provinces impacted by previous dry concerns, including Matabeleland North, Matabeleland South, and Masvingo. National production is expected at an above-average level of 2.3 million tonnes. In **Malawi**, national maize production is expected to be below-average due to the impacts of Tropical Cyclone Freddy in the Southern Region combined with limited access to fertilizers which had significant negative impacts on crop yields. The storm impacted all districts in the Southern Region, with Phalombe district being the most impacted. Conversely, conditions remain favourable in the Central Region, and conditions in the Northern Region have improved from previous dry concerns. In **Mozambique**, below-average yield and production outcomes are expected in Cabo Delgado region located in the northeast due to persistent conflict and dry conditions. While a larger number of households were able to participate in the agricultural season compared to previous seasons, the May 18 FNSWG Food and Nutrition Security bulletin indicates that ongoing conflict is likely to impact seasonal outcomes. Additionally, despite irregular rainfall during the season, cumulative totals are near-normal. Elsewhere, conditions have improved from previous concerns relating to the passage of Cyclone Freddy in February and March. In **Madagascar**, conditions in the centre, west, and south remain favourable, and crops in the east have recovered from persistent below-average conditions. In **South Africa**, harvesting of main season maize crops finalized under favourable conditions. Yields are expected to be above to well above-average due to beneficial weather conditions during the 2022/23 summer and relatively dry and warm conditions through much of autumn. In **Lesotho**, conditions are favourable with near-average yields expected. However, a reduction in production is possible due to reduced planted area and limited access to inputs. In the **Democratic Republic of the Congo**, main season sorghum and second season maize crops are in vegetative to harvesting stages, and overall conditions are favourable except in the east where heavy rains impacted South Kivu region in the first dekad of May, resulting in flooding, mudslides, and infrastructure damage. In the southeast, heavy rains in Tanganyika from late April to early May might have damaged crops that were ready for harvest. Furthermore, this season saw less participation in agricultural activities due to ongoing conflict in Tanganyika. Elsewhere in the southwest, near-average production is expected.

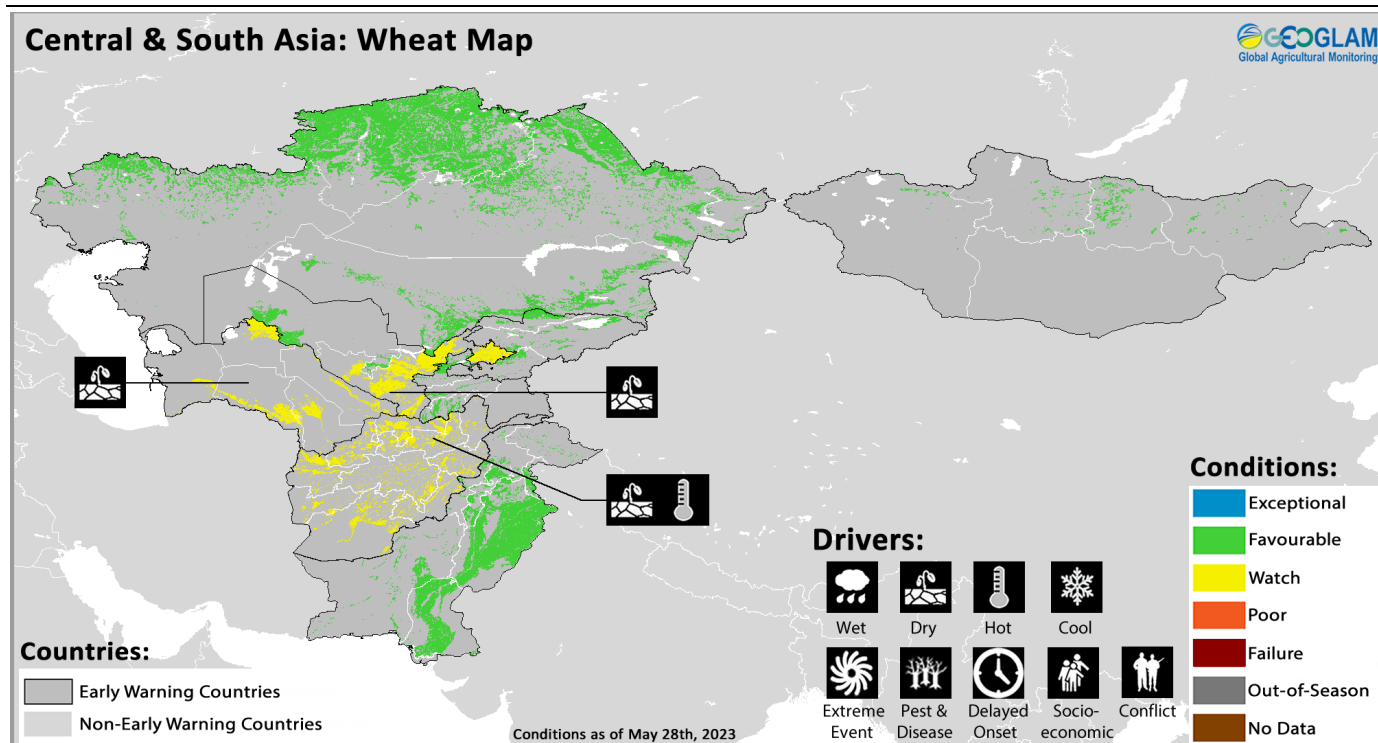


For detailed description of the pie chart please see description box on Pg. 16.

In **Botswana**, crops are unlikely to recover from dry and hot conditions throughout most of the season. In **Zambia**, conditions along the northwest and south-central regions have degraded and crops are unlikely to recover from mid to late-season heavy rains that adversely affected crop growth. Additionally, crops in the west were impacted by erratic rainfall and overall below-average performance this season. Elsewhere, conditions remain favourable. National production is expected at 3.2 million tonnes, slightly above the five-year average. In **Zimbabwe**, conditions are favourable, and crops have recovered in provinces impacted by previous dry concerns, including Matabeleland North, Matabeleland South, and Masvingo. National production is expected at an above-average level of 2.3 million tonnes. In **Malawi**, national maize production is expected to be below-average due to the impacts of Tropical Cyclone Freddy in the Southern Region combined with limited access to fertilizers which had significant negative impacts on crop yields. The storm impacted all districts in the Southern Region, with Phalombe district being the most impacted. Conversely, conditions remain favourable in the Central Region, and conditions in the Northern Region have improved from previous dry concerns. In **Mozambique**, below-average yield and production outcomes are expected in Cabo Delgado region located in the northeast due to persistent conflict and dry conditions. While a larger number of households were able to participate in the agricultural season compared to previous seasons, the May 18 FNSWG Food and Nutrition Security bulletin indicates that ongoing conflict is likely to impact seasonal outcomes. Additionally, despite irregular rainfall during the season, cumulative totals are near-normal. Elsewhere, conditions have improved from previous concerns relating to the passage of Cyclone Freddy in February and March. In **Madagascar**, conditions in the centre, west, and south remain favourable, and crops in the east have recovered from persistent below-average conditions. In **South Africa**, harvesting of main season maize crops finalized under favourable conditions. Yields are expected to be above to well above-average due to beneficial weather conditions during the 2022/23 summer and relatively dry and warm conditions through much of autumn. In **Lesotho**, conditions are favourable with near-average yields expected. However, a reduction in production is possible due to reduced planted area and limited access to inputs. In the **Democratic Republic of the Congo**, main season sorghum and second season maize crops are in vegetative to harvesting stages, and overall conditions are favourable except in the east where heavy rains impacted South Kivu region in the first dekad of May, resulting in flooding, mudslides, and infrastructure damage. In the southeast, heavy rains in Tanganyika from late April to early May might have damaged crops that were ready for harvest. Furthermore, this season saw less participation in agricultural activities due to ongoing conflict in Tanganyika. Elsewhere in the southwest, near-average production is expected.

Wheat planting is underway in **Zambia, Zimbabwe, South Africa, and Lesotho** for harvest from September, and overall conditions are favourable. In **South Africa**, recent precipitation over the winter rainfall region will support dryland production. Additionally, above-normal precipitation during the 2022/23 summer rainfall season together with recent rains over the interior will benefit irrigated production over the summer rainfall region.

## Central &amp; South Asia



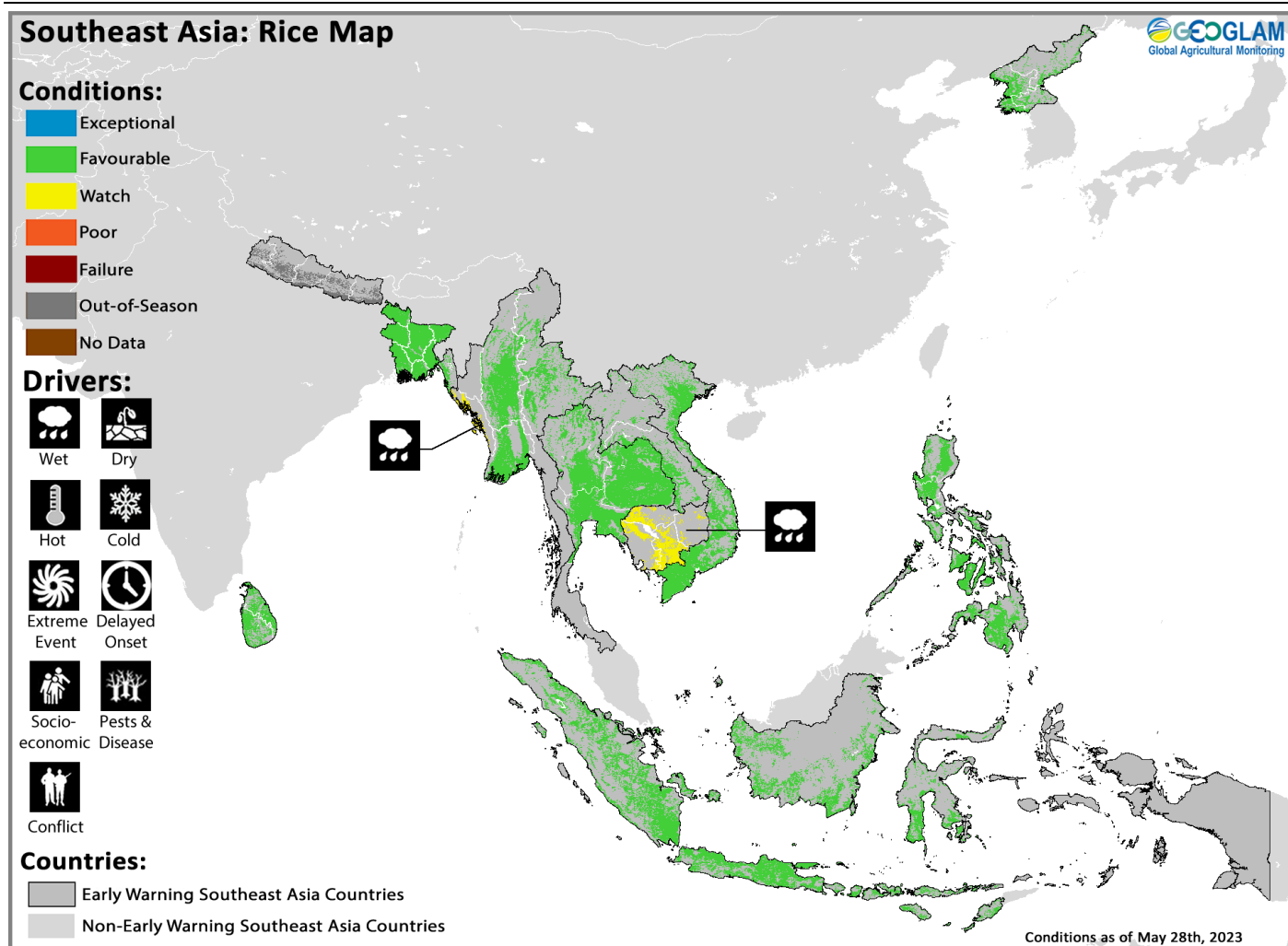
Crop condition map synthesizing wheat conditions as of May 28<sup>th</sup>. Crop conditions over the main growing areas are based on a combination of inputs including remotely sensed data, ground observations, field reports, national, and regional experts. **Crops that are in other than favourable conditions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

In Central and South Asia, wheat harvesting is now underway in **Afghanistan** and **Pakistan** while crops continue to develop in **Turkmenistan**, **Uzbekistan**, **Kazakhstan**, **Kyrgyzstan**, **Tajikistan**, and **Mongolia**. Persistent dry conditions have degraded crop prospects in **Afghanistan**, and concern remains in parts of **Uzbekistan** and throughout **Turkmenistan**. Elsewhere, growing conditions remain favourable.

In **Kazakhstan**, the minor winter wheat crop planted in October 2022 in the southern regions will be harvested between June and August, and favourable weather has contributed to near-average vegetation conditions. However, night frosts may affect crop development, particularly in Almaty region. Planting of the main spring wheat crop began in May in the northern provinces, with harvesting expected to begin in mid-August. In **Uzbekistan**, crop biomass is above-average in most regions except in Kashkadarya in the south. In **Turkmenistan**, despite irrigation use, crop biomass is well below-average, likely due to the country receiving the lowest rainfall amounts in the last 32 years for the October to late May period. In **Afghanistan**, winter wheat harvesting activities have completed in the south and east and are progressing elsewhere. While conditions for both irrigated and rainfed crops are better than last year, concern remains for areas impacted by below-average rains and high temperatures, particularly in lowland rainfed areas. According to the May 23 FEWS NET Seasonal Monitor, seasonal precipitation from October 2022 through May 2023 has been below-average across much of the country, except in localized central, south, and eastern areas where precipitation was near-average. Below-normal soil moisture conditions have resulted in significant moisture stress across the wheat belt in north, west, and central areas. Additionally, snow water volumes in eastern basins are below-average, depleting earlier than usual due to above-average temperatures. The NMME and C3S forecasts predict above-average temperatures for June to August 2023, except in some central and southern regions. Conversely, a likely shift to El Niño suggests above-average precipitation for the 2023–2024 wet season (See Climate Influences Pg. 3). Furthermore, the production of rice and maize is expected to be below-average this year, particularly in downstream areas, due to reduced area under cultivation and potential water disputes. In **Pakistan**, harvesting of the main *Rabi* wheat crop is complete in most parts of the country except in some regions in the north. Despite a slight reduction in planted area, wheat production is expected to be marginally higher than the previous year. Land preparation is underway for maize crops to be harvested in September.



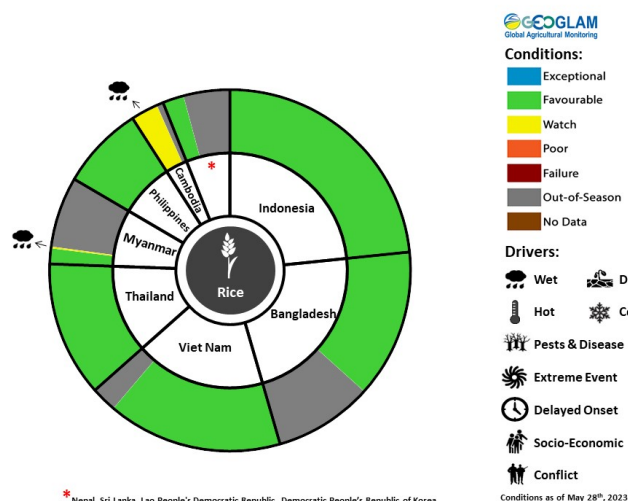
Southeast Asia



Crop condition map synthesizing rice conditions as of May 28<sup>th</sup>. 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, harvesting of dry-season rice is nearing completion under generally favourable conditions, except in western **Myanmar** where Cyclone Mocha brought heavy rainfall and flooding in low-lying areas. Final dry-season rice production for northern Southeast Asia is estimated to be near-average as a result of increased planted area and near-average yields due to sufficient irrigation water supply and favourable weather throughout the season. Wet-season rice is in the field preparation to seeding stage, and planting activities are delayed due to the late rainy season. Cumulative precipitation amounts from early April to late May are generally below-average, particularly in southern **Myanmar** and in and around **Thailand**. Weather models indicate a shift towards wetter than normal conditions for the June to August period in mainland areas and drier than normal conditions in southern areas and **Indonesia**. However, below-normal June to August (JJA) rainfall outcomes during some El Niño events in **Thailand** and other mainland areas may impact this season's rainfall outcomes, and forecast above-normal temperatures throughout the season may impact crop development. Additionally, total wet-season rice planted area is forecast to decrease compared to last year for mainland areas due to irrigation water supply shortages and increasing costs of agricultural inputs, including fertilizer, pesticides, and fuel.

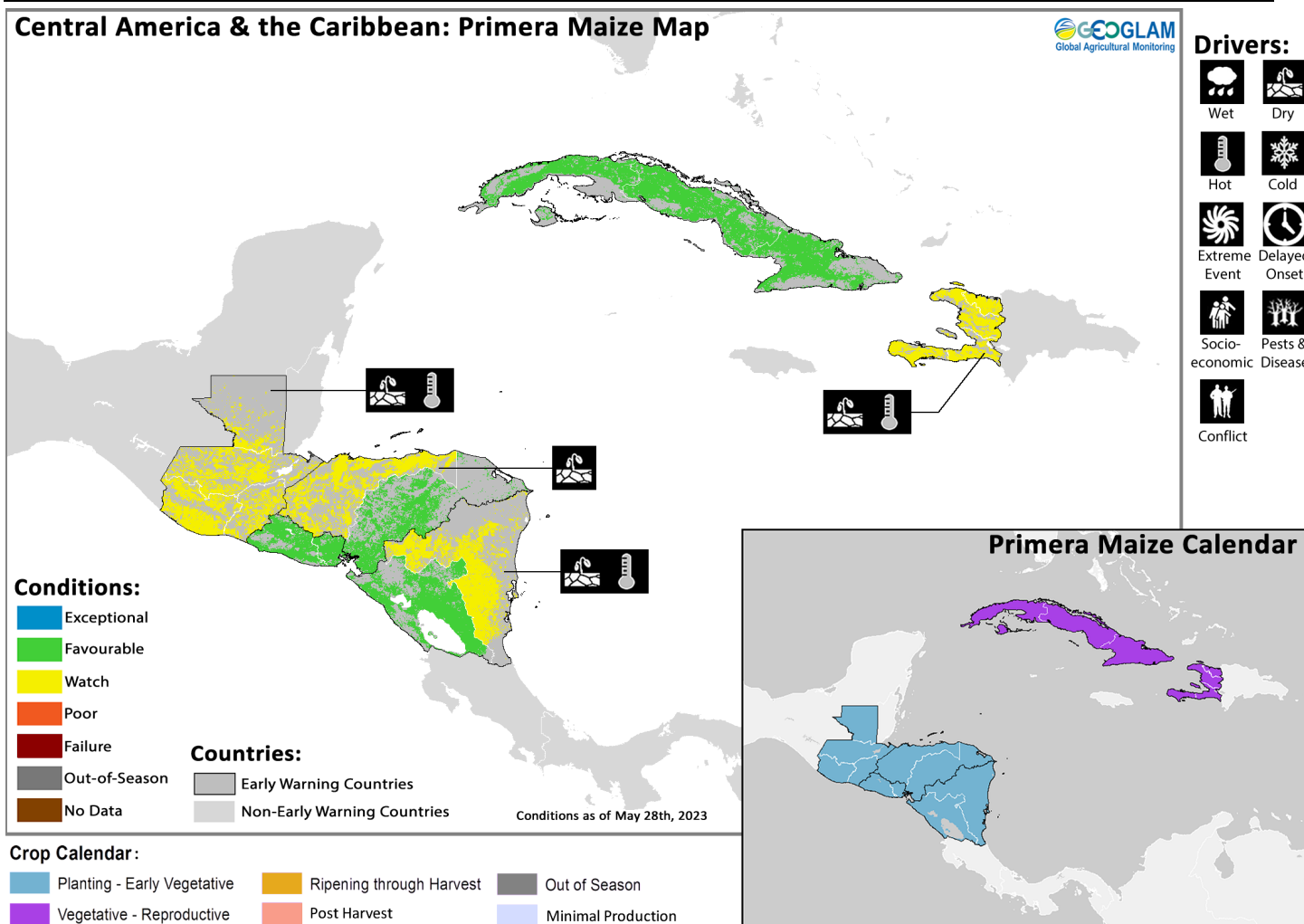
In **Indonesia**, harvesting of wet-season rice is progressing under favourable conditions. Total harvested area is 5.1 million hectares, and the yield is expected to be good due to sufficient irrigation water supply and sunlight during the flowering phase. Sowing of dry-season rice is continuing slowly as farmers wait for additional rainfall. In the **Philippines**, dry-season rice



For detailed description of the pie chart please see description box on Pg. 16.

harvesting is wrapping up under favourable conditions. About 4.78 million metric tons were produced, an increase of 5.2 percent compared to last year due to less occurrences of pests and diseases, sufficient rainfall, and increased usage of high-yielding varieties. Sowing of wet-season rice is beginning under favourable conditions. In **Thailand**, harvesting of dry-season rice is nearing completion with good yields and an increase in total sown area compared to last year, which is expected to increase production 23 percent. Land preparation is now underway for wet-season rice, and planting will begin with the start of the seasonal rains which are expected to occur by late May. However, the planted area is expected to decrease due to water supply shortages as well as increasing costs of agricultural inputs, including fertilizer, pesticides, and fuel. As a result, some farmers may opt to replace paddy areas with other crops such as cassava, which is highly cost effective and can tolerate drought. In **Viet Nam**, conditions are favourable across the country for dry-season rice (winter-spring rice) as harvesting wraps up in the South. The harvested area has reached 1.57 million hectares out of 1.88 million hectares planted. The yield of harvested rice is 7.12 tons per hectare, a 1.6 percent increase compared to the previous year as crops benefitted from favourable weather conditions and less saline intrusion. Sowing of wet-season (summer-autumn rice) is at the peak in the Mekong River Delta, with a sown area of 0.51 million hectares. In **Laos**, harvesting of dry-season rice is nearing completion under favourable conditions. The final harvested area is estimated at 96 thousand hectares, including 432 thousand tons produced with a yield of 4.5 tons per hectare. Land preparation for wet-season rice is now underway with a national planting plan of 823 thousand hectares. However, currently limited rainfall and low irrigation water supply are delaying preparation activities. In **Myanmar**, harvesting of dry-season rice is nearing completion under generally favourable conditions, except in western areas impacted by Cyclone Mocha. Harvesting progress has reached over 675 thousand hectares, accounting for about 64.2 percent of the total planted area of 1.05 million hectares. Most of the harvested area is in the Delta region, and 3.4 million tons have been produced with a yield of 5.05 tons per hectare. The yield is near-average and higher than the previous year due to generally favourable growing conditions. However, on May 14, Cyclone Mocha formed in the Bay of Bengal before crossing the coast between Cox's Bazar in southeastern Bangladesh and Kyaukpyu township on the western coast of Myanmar as an extremely severe cyclone, bringing heavy rains, strong winds, and storm surges to affected areas as well as flooding in low-lying areas of Rakhine state located in western Myanmar. Cyclone Mocha was one of the strongest cyclones to ever hit the country, with Sittwe and Rathedaung being the hardest hit areas in Rakhine state, and there have also been reports of flooding in conflict-affected areas of the northwest. The storm may have been intensified by abnormally high sea surface temperatures in the Bay of Bengal over the last month. Cyclone Mocha may negatively impact final dry-season rice production with 1,400 km<sup>2</sup> of overall cropland area estimated to have been flooded and 32,000 livestock estimated to have been lost, according to the May 27 IFRC Emergency Appeal. Furthermore, land preparation is currently underway for wet-season rice. In **Cambodia**, harvesting of dry-season rice finalized last month under favourable conditions. Sowing of wet-season rice started in May, and crop growth is slightly delayed due to scattered rainfall throughout the country. Planted area has reached 2.6 million hectares accounting for 12 percent of the national plan. In **Sri Lanka**, planting of *Yala* season maize and rice crops continues under favourable conditions with an expected increase in planted area due to improvement in availability of agricultural inputs. In **Nepal**, harvesting of winter wheat is underway and will finalize in June while maize crops are in vegetative to reproductive stage for harvest from August, and overall conditions are favourable. In **Bangladesh**, harvesting of *Boro* season rice finalized in May while planting and development of *Aus* season rice and other main season cereals is underway, and overall conditions remain favourable. Additionally, both maize and sorghum production are forecast to be above-average. In the **Democratic People's Republic of Korea**, planting and development of main season maize and rice crops continues for harvest from August, and overall conditions remain favourable.

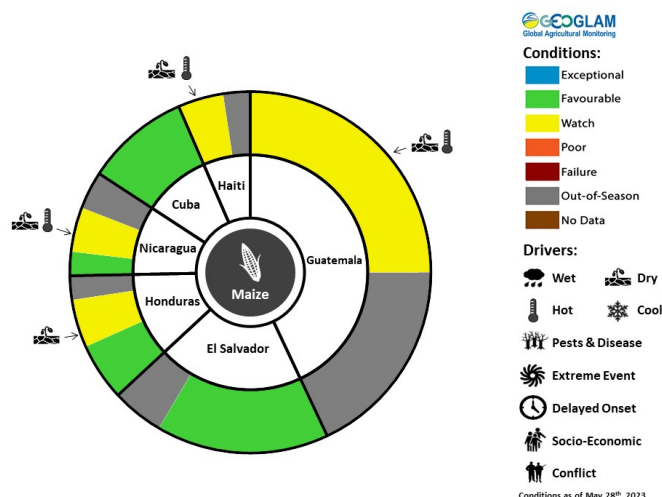
Central America & Caribbean



Crop condition map synthesizing Primera Maize conditions as of May 28<sup>th</sup>. 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, planting of *Primera* season cereals is now underway in **El Salvador, Guatemala, Honduras, and Nicaragua** under mixed conditions. Dry and hot conditions continue to cause concern in the Pacific Basin, including parts of **Guatemala**, northern **Honduras**, and eastern **Nicaragua**, while planting conditions in **El Salvador**, southern **Honduras**, and western **Nicaragua** are favourable. Improved rains in late May helped to reduce some deficits but not enough to provide substantial crop improvement, and the rains also resulted in localized flooding in parts of **Nicaragua** and **Honduras**. However, forecast dry conditions through early June may result in persisting rainfall deficits in southern areas and developing deficits in northern areas, potentially damaging crops at crucial development stages. The likely development of an El Niño event raises concerns for drier and hotter than normal conditions during the next several months (See Climate Influences Pg. 3 and Regional Outlook Pg. 15).

In **El Salvador**, some localized central and eastern regions experienced dry conditions while growing conditions in other areas remain favourable. In **Guatemala**, there is concern in the north due to poor moisture accumulation in April and despite improved rains in May. In the south, high temperatures and below-average rains in May could result in crop stress. In the east, early sowing activities in some areas resulted in crop losses in the first growing stages due to erratic rainfall. In **Haiti**, *Printemps* season cereals continue to develop for harvest from June, and there is ongoing concern due to persistent rainfall deficits and hot conditions, particularly in the southern peninsula and in the Ouest department, and below-average yields are



For detailed description of the pie chart please see description box on Pg. 16.



expected. However, some northern areas benefitted from increased rains since April. Precipitation outlooks are mixed for the June to September period (See Regional Outlook Pg. 15). In **Cuba**, harvesting of main season maize and rice crops is just beginning while planting of second season rice is underway, and overall conditions are favourable due to abundant precipitation in April and May.

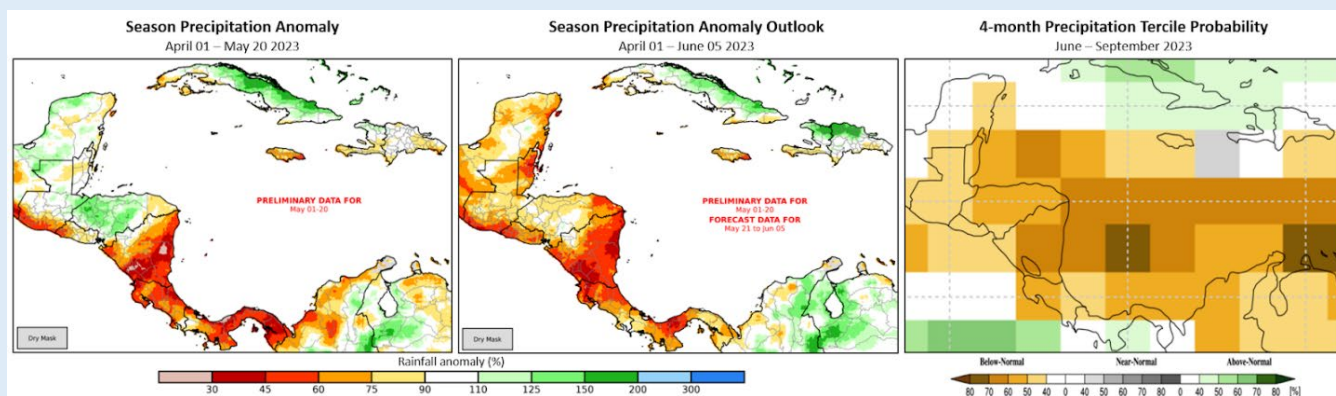
**Regional Outlook: Drier than average conditions are forecast through early June and into the next several months**

Rainfall from April 1st to May 20th was below-average in Pacific coast areas of Guatemala and Petén department, El Salvador, eastern Honduras, Nicaragua, Costa Rica, and southern and central Haiti (Figure 1-left). Conditions were much drier than average in southern Central America, Pacific coast areas of Guatemala, and western El Salvador, with many locations receiving only half of typical amounts since April. Periodic heavy rains during late April and the first half of May led to rainfall surpluses in western and central Honduras; however, below-average NDVI conditions in some locations suggest that these rains were not widely beneficial to vegetation due to the above-average temperature that reduced soil moisture. Sowing activities have been delayed, especially in the dry corridor area of Central America.

Forecasted dry conditions for late May to early June raise concerns that severe, impactful rainfall deficits may develop across northern Central America and persist in southern areas (Figure 1-middle). If this forecast materializes, numerous locations would experience a lengthy multi-week dry spell that could harm crops in vegetative stages of development, with compounding impacts from recently observed and forecast above-average daytime temperatures. In Chiquimula, Guatemala, field reports indicate that maize crops in initial phenology stages have failed.

Drier and hotter-than-normal conditions are anticipated during the next several months. The forecast development of an El Niño event (See Climate Influences Pg. 3) raises concerns for a possible longer and more severe “mid-summer drought” period than usual. While outcomes historically vary, models are predicting 40% to 70% chances of below-normal June to September rainfall across Central America (Figure 1-right), and higher-than 70% chances of above-normal temperatures across the entire region.

In Haiti, precipitation outlooks are mixed. Models forecasts for June to September indicate potential above-normal rainfall, but there is currently low confidence in good growing conditions given the forecast above-normal temperatures, dry tendencies during past El Niño events, and multi-season dry conditions that continue to negatively affect crop development.



**Figure 1. A seasonal rainfall anomaly and a two-week outlook, and a 4-month probabilistic rainfall forecast.** The left and middle-left panels are 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 Apr. 1st to May 20th, 2023 (left) and for Apr. 1st to Jun. 5th (middle). Both panels use CHIRPS Prelim for May 1st to 20th; the middle panel also includes a CHIRPS-GEFS forecast for May 21st - Jun. 5th. The right panel is a WMO probabilistic forecast for June-to-September 2023 precipitation, based on models initialized in May. This image is from the [WMO Lead Centre Long-Range Forecast Multi-Model Ensemble](#). Source: UCSB Climate Hazards Center

**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](http://www.cropmonitor.org).

**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 June 1<sup>st</sup>, 2023.

## 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 production 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.

	Exceptional
	Favourable
	Watch
	Poor
	Failure
	Out-of-Season
	No Data

*"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.



Wet



Dry



Hot



Cold

Extreme  
EventDelayed  
OnsetSocio-  
economicPests &  
Disease

Conflict

**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



# GEOGLAM

## Global Agricultural Monitoring

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The Crop Monitor is a part of GEOGLAM, a GEO global initiative.

Cover Photo by: Yuval Sadeh

### Contributing partners



*\*EC contribution is provided by the Joint Research Centre of the European Commission*