

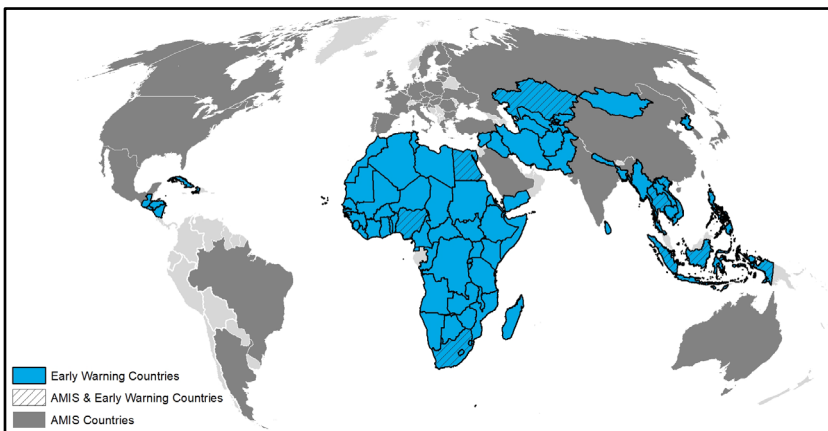


Crop Monitor

EARLY WARNING

Overview:

In **East Africa**, overall conditions are mixed for main season cereals as delayed and below-average rainfall is impacting crop development in parts of Ethiopia, Somalia, Kenya, South Sudan, and Uganda. A likely fourth consecutive below-average rainfall season is expected to exacerbate drought conditions (See Regional Outlook Pg. 7). In **West Africa**, planting of main season cereals is underway along the Gulf of Guinea, and planting conditions are mostly favourable except in conflict affected regions. In the **Middle East and North Africa**, winter wheat crops continue to develop under mixed conditions as dryness persists in parts of Morocco, Algeria, Tunisia, Syria, and Iraq. In **Southern Africa**, harvesting of main season cereals is nearing completion with below-average yield prospects in parts of the subregion due to persistent dry conditions throughout the season. In **Central and South Asia**, winter wheat crops are in vegetative to reproductive stage for harvest from May while planting of spring wheat crops is just beginning, and overall conditions are mixed due to persistent dryness in parts of the subregion. In **Southeast Asia**, harvesting of dry-season rice is underway in the north, and conditions are generally favourable except in the central Philippines where Tropical Storm Megi resulted in crop damage. High prices and limited availability of fertilizer may impact yields in Sri Lanka and Nepal. In **Central America and the Caribbean**, land preparation and planting of *Primera* season cereals is underway under favourable conditions. However, high fertilizer prices across the region may have negative implications for seasonal outcomes.



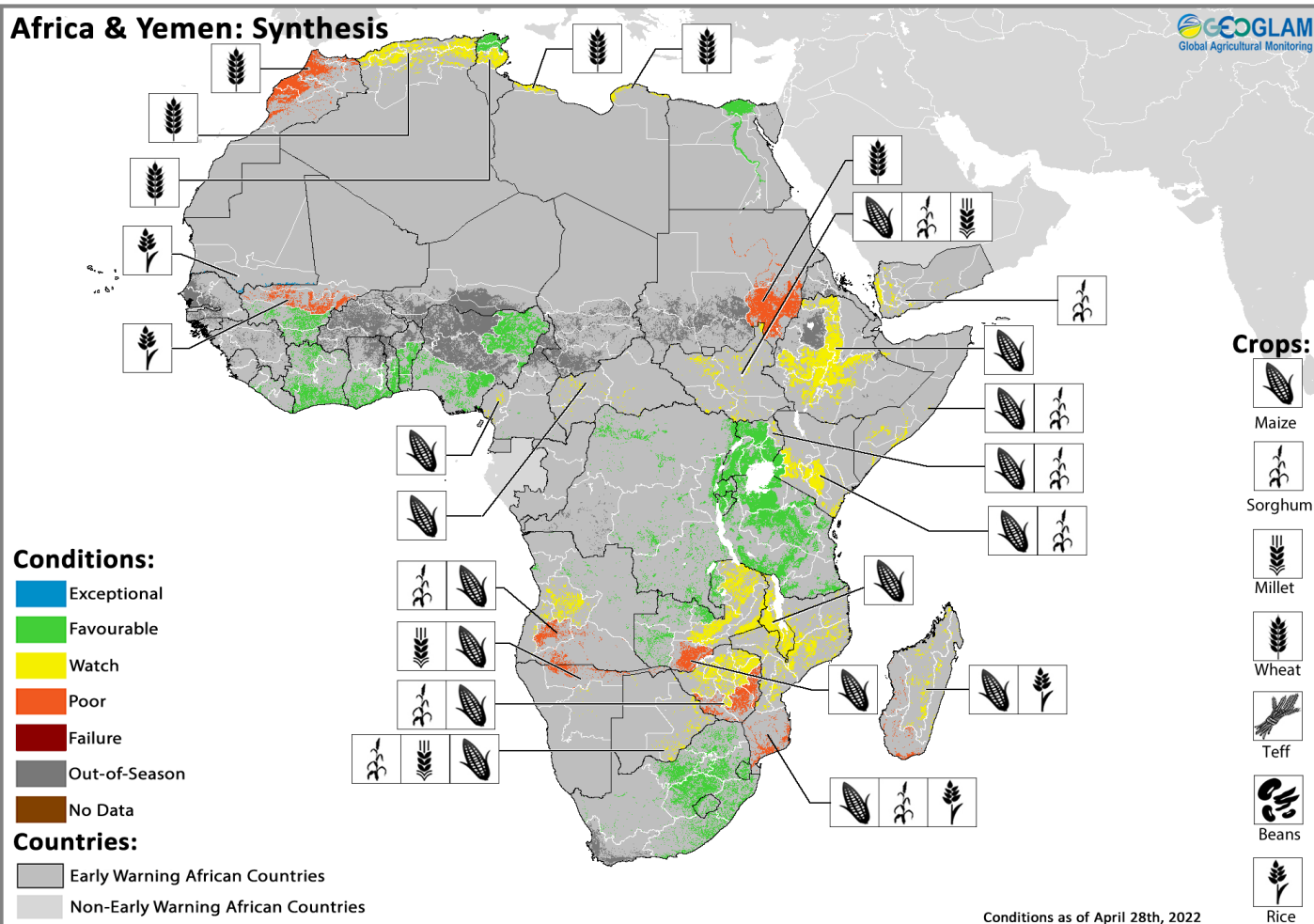
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GEOGLAM Crop Monitor for Early Warning

Crop Conditions at a Glance

based on best available information as of April 28th



Crop condition map synthesizing information for all Crop Monitor for Early Warning crops as of April 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: Planting and development of main season cereals is underway across much of the subregion, and overall conditions are mixed due to delayed and below-average seasonal rains in parts of Ethiopia, Kenya, Somalia, South Sudan and Uganda. Based on seasonal rainfall totals and the outlook for May, an unprecedented fourth poor rainfall season is almost certain for the Horn of Africa (See Regional Outlook Pg. 7).

WEST AFRICA: Planting of 2022 mains season cereals is underway along the Gulf of Guinea and in the Central African Republic, and planting conditions are mostly favourable except in the Central African Republic due to ongoing conflict. During May and June, there are increased chances for below-normal rainfall across parts of the subregion (See Regional Outlook Pg. 9).

MIDDLE EAST & NORTH AFRICA: Winter wheat crops continue to develop under mixed conditions due to ongoing dryness in several regions, which is forecast to continue through the end of the season (See Regional Outlook Pg. 11), as well as ongoing conflict and socio-economic challenges in Libya and Syria.

SOUTHERN AFRICA: Harvesting of main season cereals is nearing completion, and below-average yield outcomes are

expected in parts of Angola, Namibia, Zambia, Zimbabwe, Mozambique, and Madagascar due to persistent dry conditions throughout the season. There is also concern in parts of Mozambique, Malawi, and Madagascar impacted by the passage of several tropical storms.

CENTRAL & SOUTH ASIA: Winter wheat crops continue to develop under mixed conditions as dryness persists in parts of Afghanistan, Turkmenistan, Uzbekistan, and Tajikistan. Planting of spring wheat has begun with concern in Afghanistan due to current and forecast dry conditions through June (See Regional Outlook Pg. 15). Elsewhere, planting conditions are favourable.

SOUTHEAST ASIA: In the north, harvesting of dry-season rice reached its peak in April, and final production is expected to be above-average in many regions due to stable weather conditions throughout the season.

CENTRAL AMERICA & CARIBBEAN: Land preparation and planting of *Primera* season cereals is underway, and overall conditions are favourable. In the Caribbean, abundant precipitation in April replenished soil moisture levels in Cuba but may have resulted in crop damage in parts of Haiti. There are increased chances of below-average May to July precipitation for parts of the subregion (See Regional Outlook Pg. 18).

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 northern Great Plains in the US and the southern Prairies in Canada, Panama, northern Brazil, eastern India, Bangladesh, southwest China, Myanmar, Laos, Thailand, southern Viet Nam, and eastern Australia.

There is also a likelihood of below-average rainfall over the US southwest, southern Mexico, Bolivia, southern and central-west Brazil, Paraguay, Uruguay, Argentina, southern and eastern Germany, southwest Poland, northeastern Romania, Moldova, southwest Ukraine, southern and Siberian of the Russian Federation, southern Turkey, Syria, Lebanon, Iraq, northern and western Iran, southern and eastern Kazakhstan, eastern Uzbekistan, Kyrgyzstan, Tajikistan, eastern Turkmenistan, Afghanistan, southern Mali, Côte d'Ivoire, southern Niger, Nigeria, southern Chad, northern Central African Republic, southern Sudan, Eritrea, Ethiopia, Somalia, Kenya, southern Uganda, central and eastern Tanzania, northern Madagascar, northern China, Indonesia, and Western Australia.

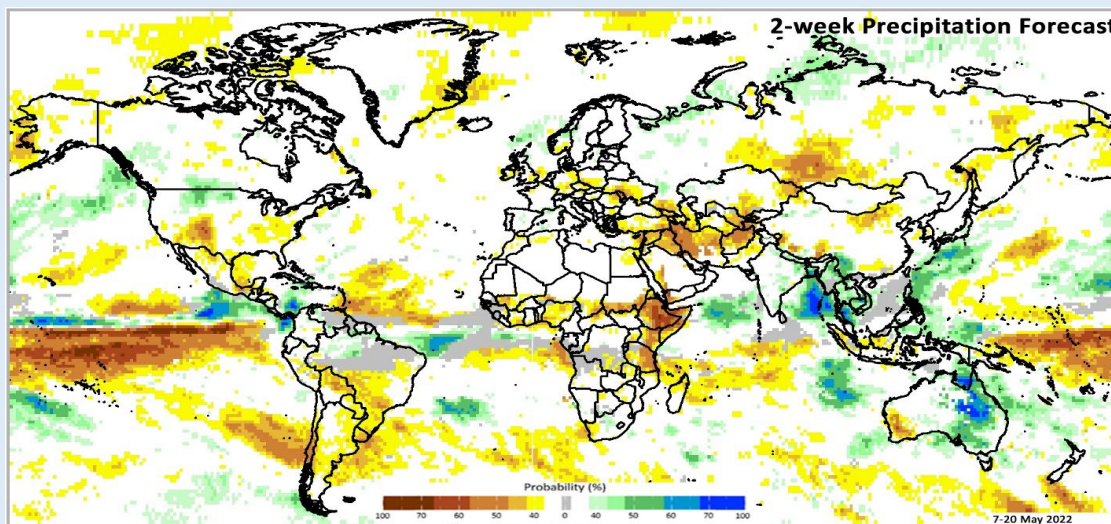


Figure 1: IRI SubX Precipitation Biweekly Probability Forecast for 7-20 May 2022, issued on April 29th, 2022. The forecast is based on statistically calibrated tercile category forecasts from three SubX models. Source: [IRI Subseasonal Forecasts Maproom](https://climate.iri.org/subseasonal-forecasts-maproom/)

Climate Influences: La Niña Advisory and Outlook for a Negative Indian Ocean Dipole from June

The El Niño-Southern Oscillation (ENSO) is currently in the La Niña phase and is expected to remain as La Niña through at least July (73% chance) according to the IRI/CPC. Long-range forecasts show higher-than 50% chances of La Niña, and very low chances of El Niño, through the end of 2022.

If La Niña conditions occur in late 2022 it would be the third event in a row, which is highly uncommon. Another La Niña could elevate risks of repeated dry conditions in negatively-affected regions, such as eastern East Africa, southern South America, Central and Southern Asia, and southern North America, where several rainfall seasons have been below-average since late 2020. Negative Indian Ocean Dipole conditions are likely to develop in June and last through September or longer. Negative IOD conditions are associated with above-average rainfall in Australia and below-average rainfall in East Africa.

Source: UCSB Climate Hazards Center

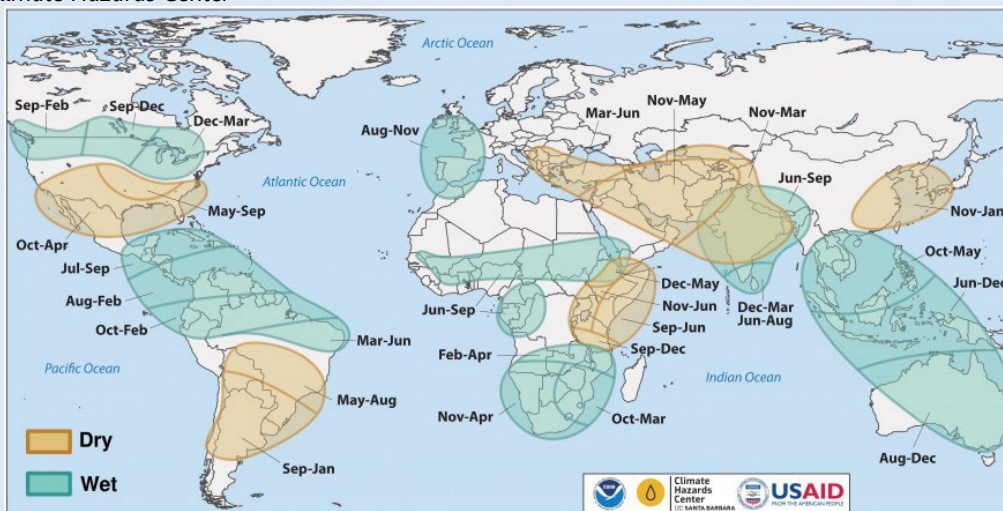
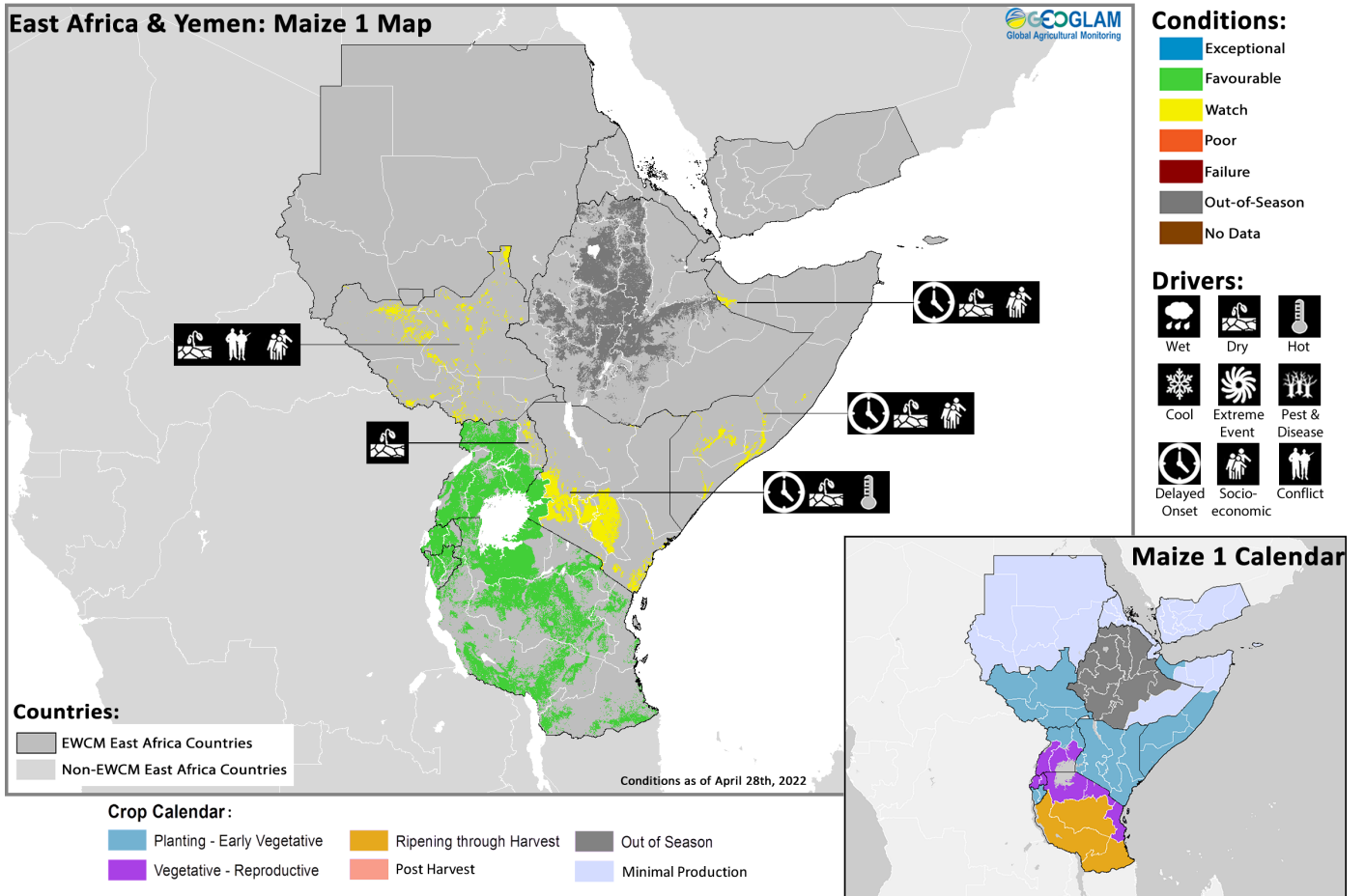


Figure 1. Timing of wet and dry conditions related to La Niña <https://fews.net/la-ni%C3%B1a-and-precipitation>. Source: NOAA & CHC & FEWS NET

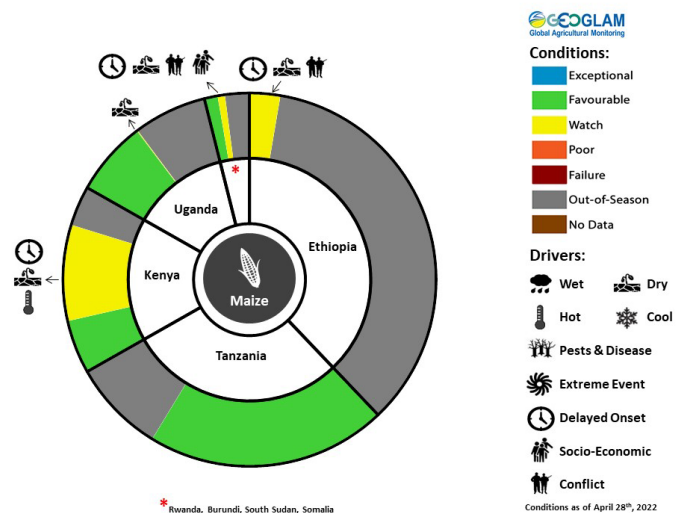
East Africa & Yemen



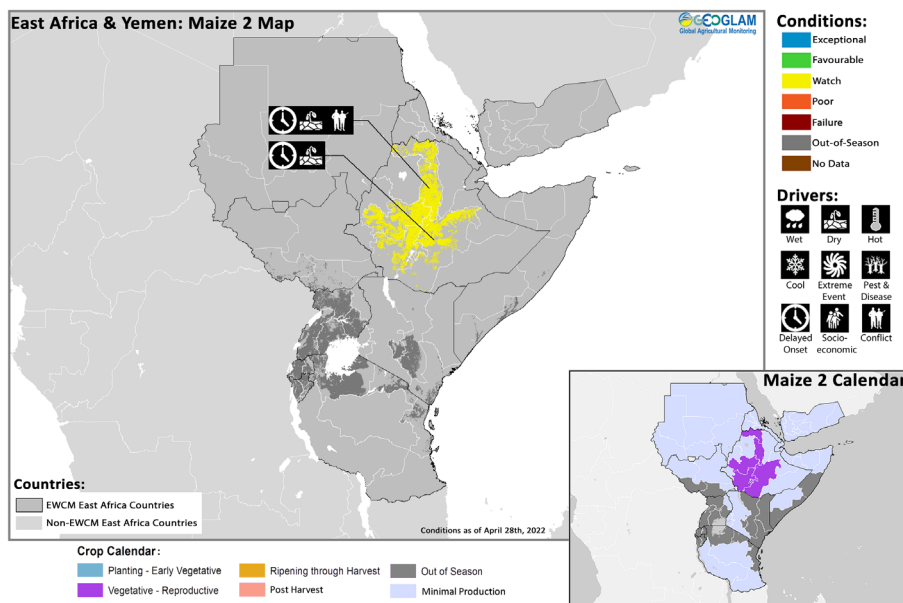
Crop condition map synthesizing Maize 1 crop conditions as of April 28th. Crop conditions over the main growing areas are based on a combination of inputs including remotely sensed data, ground observations, field reports, national, and regional experts. **Conditions that are other than favourable are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

Across the north of the subregion, harvesting of winter wheat crops finalized in north and eastern **Sudan** under poor conditions due to persistent dryness and socio-economic challenges throughout the season. Planting of main season cereals continues in **Yemen** and has just begun in **South Sudan**, and there is ongoing concern due to persistent socio-economic challenges and conflict in both countries as well as early season dryness in **South Sudan**. In **Ethiopia**, *Belg* season (Short Rains) maize crops are in vegetative to reproductive stage, and there is ongoing concern due to delayed and below-average *Belg* rains as well as ongoing conflict in the north.

Across the south of the subregion, harvesting of main season cereals is underway in the **United Republic of Tanzania** while planting and development continues in **Rwanda**, **Uganda**, **Burundi**, **Kenya**, and **Somalia** for harvest from June. There is concern in many regions as delayed and below-average seasonal rains are impacting planting activities throughout **Kenya**, **Somalia**, and northeastern **Uganda**. Farmers in **Somalia** are also facing difficulties accessing agricultural inputs and labour as the extreme water shortage has resulted in high displacement levels. Much of the subregion has experienced delayed rainfall onset for the March to May (MAM) rains, particularly in the *Belg* producing regions of **Ethiopia**, southeast, northeast, and coastal **Kenya**, and **Somalia**. As April or early May is usually the peak time for the MAM season in most parts of the subregion, below-average rainfall performance in April could result in little to no recovery of planted crops (See Regional Outlook Pg. 7). According to IGAD ICPAC, prospects of a fourth consecutive below-average rainfall season would place parts of **Ethiopia**, **Kenya**, and **Somalia** into the worst drought conditions experienced in the last 40 years. Additionally, an armyworm invasion is impacting crops in parts of **Kenya** and **Uganda**. Elsewhere, conditions are favourable as of late April.



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



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

prolonged socio-economic challenges impacting agricultural production. Additionally, over the past month, insecurity has spread across three areas of West Darfur and parts of neighbouring North and South Darfur states. In late April, armed violence broke out in Kreinik town of West Darfur, prompting fears that the violence could spread to the state's capital of Al Geneina, which hosts 100,000 displaced people. In **South Sudan**, planting of first season cereals is underway for harvest from July, and there is concern due to current dry conditions in some areas as well as ongoing conflict and socio-economic challenges throughout the country. In **Yemen**, planting of main season sorghum crops continued in April for harvest from September, and there is ongoing concern as conflict and socio-economic challenges are likely to impact seasonal outcomes.

Southern East Africa

In **Somalia**, planting of *Gu* season maize and sorghum crops is underway, and there is concern due to delayed and below-average rains as well as compounded impacts from three consecutive below-average rainfall seasons. The government declared a state of emergency in November 2021, and as of early April, some parts of the country were experiencing the worst water scarcity in 40 years. Prevailing La Niña conditions are very likely to result in a historic four consecutive below-average *Gu* rainfall seasons from April to June and worsening extreme drought conditions that have been present since December 2021 (See Regional Outlook Pg. 7). As around 75 percent of rainfall in Somalia is typically received during the *Gu* rainfall season, outcomes are critical for crop performance and livelihoods. For irrigated crops, rising water levels in rivers could support crop development, though an early cessation of rains may impact water levels and crop outcomes. Season-to-date rainfall accumulations in the Juba-Shabelle basin are very low. Furthermore, some households are facing challenges in accessing agricultural inputs and labour as many people have been displaced due to the extreme water shortage. In **Uganda**, planting and development of first season cereals is underway for harvest from June, and conditions are generally favourable except in areas of Karamoja where dry conditions are impacting planting activities. Additionally, as of April 12th, an armyworm outbreak has been discovered in 35 districts of the country, primarily in the east, centre, and northern regions. Maize, millet, and sorghum crops have been affected. According to Uganda's agricultural ministry, extended drought followed by early season rainstorms will increase the severity and extent of the outbreaks and facilitate moth migration. In **Kenya**, harvesting of Short Rains maize crops finalized last month under failure conditions in marginal bimodal areas due to a third consecutive season of below-average rainfall. Planting of Long Rains maize and rice crops is underway, and there is ongoing concern in marginal bimodal areas of the northeast, coastal, and eastern regions as well as in the unimodal central region as delayed rainfall onset and ongoing drought continue to impact planting activities. Conditions in the unimodal and major producing Rift Valley have also been downgraded to watch as there are some pockets along the northern rift with poor rainfall performance. Overall, seasonal rainfall was delayed in the Highlands West of the Rift Valley and has yet to be realized over most of the Central Rift Valley, the Northwest, and most of the Coastal regions of the country as of mid-April. Below-average rainfall performance in March and April in combination with forecast continued below-average rainfall in May would impact crops in later stages of development (See Regional Outlook Pg. 7). Additionally, high temperatures are resulting in increased evapotranspiration of the received rains, in turn limiting soil moisture retention. Planting conditions remain favourable in the West despite somewhat delayed rains. However, an African armyworm invasion has impacted most parts of the West and Rift Valley as of late April, according to agricultural experts from the Western region. County governments in affected areas are working with the country's agricultural ministry to combat against the

Northern East Africa & Yemen

In **Ethiopia**, *Belg* season (Short Rains) maize crops are in vegetative to reproductive stage for harvest from June, and there is concern in most areas due to delayed and below-average *Belg* rains as well as persisting conflict in the north. From late 2020, three consecutive seasons of below-average rainfall have led to prolonged drought in east and southeastern regions. This year, rainfall in April has been poor in central and eastern Ethiopia, and many regions appeared to be experiencing 30 to 40-day delays as of late April. While pockets of western Oromia, Gambela, and western SNNPR experienced near-average rains from early March through early April that improved growing conditions, the delayed onset and potential early cessation of seasonal rains is expected to affect crop outcomes in most areas. In **Sudan**, harvesting of winter wheat crops finalized in April with below-average yields in the northeast due to dry conditions as well as

invasion. However, smallholder farmers who cannot afford pesticides are likely to be the most affected. In **Burundi** and **Rwanda**, planting and development of main Season B maize and rice crops continues under favourable conditions for harvest from June. In **Burundi**, overall vegetation conditions and soil moisture levels are favourable despite some localized areas with deficit rainfall in the south. In **Rwanda**, a heavy rainfall downpour on April 23rd resulted in flooding and crop damage in localized areas. According to the Rwanda Environment Management Authority, flooding across the City of Kigali resulted in significant crop damage around wetland areas, including Kibumba, Nyabugogo, Rugenge-Rwintare, Rwampara, and Gikondo. Additional forecast rainfall through late April may exacerbate the damages (See Regional Outlook Pg. 7). In the **United Republic of Tanzania**, harvesting of *Msimu* season cereals has begun in unimodal central and southern areas while *Masika* season cereals continue to develop in bimodal northern areas, and growing conditions remain favourable throughout the country.

Regional Outlook: An unprecedented fourth consecutive dry rainfall season is almost certain for the Horn of Africa

At this point, the Horn of Africa is about two-thirds of the way through the 2022 March-May rainy season, and many regions have experienced very dry or substantially below-average rainfall (Figure 1-left). There has been a two-to-four dekad-long (20 to 40 days) delay to the main season rainfall in many equatorial and northern areas, as well as below-average rains during the February/March-to-May rainfall seasons in portions of Ethiopia, eastern and northern Kenya, and Somalia. Rainfall in central Tanzania was also below average during late-March to mid-April. Western and southern areas of the region received average to above-average rainfall in late-April, with localized heavy rains in portions of western and eastern Ethiopia and northern Somalia. Poor March-April rainfall performance and the drier-than-normal forecast for May are highly concerning for the March-to-May rainfall season in eastern Kenya, central-eastern Ethiopia, and southern Somalia. Large negative impacts are expected. Rainfall has been low and inconsistent, and season-to-date totals range from less-than 50% of average to less-than 75% of average in most areas, as of April 25th. Under normal conditions, seasonal rains typically peak in April or early May in most of these areas. Forecast rainfall amounts for April 26th to May 10th do not indicate major improvement across the region (Figure 1-middle-left), though wetter conditions are likely to improve the situation in some areas. Compounding these concerns are ongoing agro-pastoral impacts from the past [three seasons](#) with below-average or poor spatially and temporally distributed rainfall, as well as record-high temperatures during recent months. Vegetation remains highly stressed, based on [mid-April NDVI data](#). For Ethiopia's *Belg* season, central and northern areas received only a few days of meager rainfall between late-February to late-April. Seasonal rainfall totals are a small fraction of typical amounts (Figure 1-left), and the forecasts indicate that the last few weeks of the season will likely also be dry. In more humid southern *Belg* growing areas, rainfall onset was delayed by several weeks and large rainfall deficits emerged. Some of these areas experienced a poor [2021 Belg Season](#) and/or exceptionally low March-October "long" rains.

During May, drier-than-normal conditions are forecast to continue across much of the region, and particularly over rainfall deficit areas, according to the pessimistic IRI SubX probabilistic forecasts for rainfall during May 7th to 20th (Figure 1-middle-right) and [May 14th to 27th](#). Suppressed rainfall is consistent with the drying impacts from many recent La Niña events. There is an 89% chance that La Niña will continue through June 2022, and "Western V" sea surface temperatures are very likely to be exceptionally warm. Such conditions have been [associated](#) with the increased frequency of below-normal March-May rains in the eastern Horn (see CM4EW August 2021 to March 2022 Seasonal Forecast Alerts).

Based on the low and inconsistent March-April 2022 rainfall, and the forecast conditions during May, a fourth poor rainfall season is almost certain for the Horn of Africa and would be an unprecedented event for the region. A fourth below-average March-to-May season [is very likely to acutely worsen the food security situation](#) in eastern, southern, and south-eastern Ethiopia and the arid and semi-arid regions of Kenya and Somalia.

Seasonal rains will continue in western areas, and will increase in northern areas for the June-to-September season. Wetter-than-normal conditions are anticipated during that time in most of those areas (Figure 1-right). While this could be beneficial for agriculture, there would be increased risks of damaging, heavy rain events and flooding in low-lying and riverine areas. For eastern East Africa, long-lead [forecasts for a negative Indian Ocean Dipole](#) and elevated odds for a third consecutive La Niña (~ [50% chance](#)) correspond to large-scale climate conditions that would increase the chances of yet another below-normal season, during September-to-December 2022.

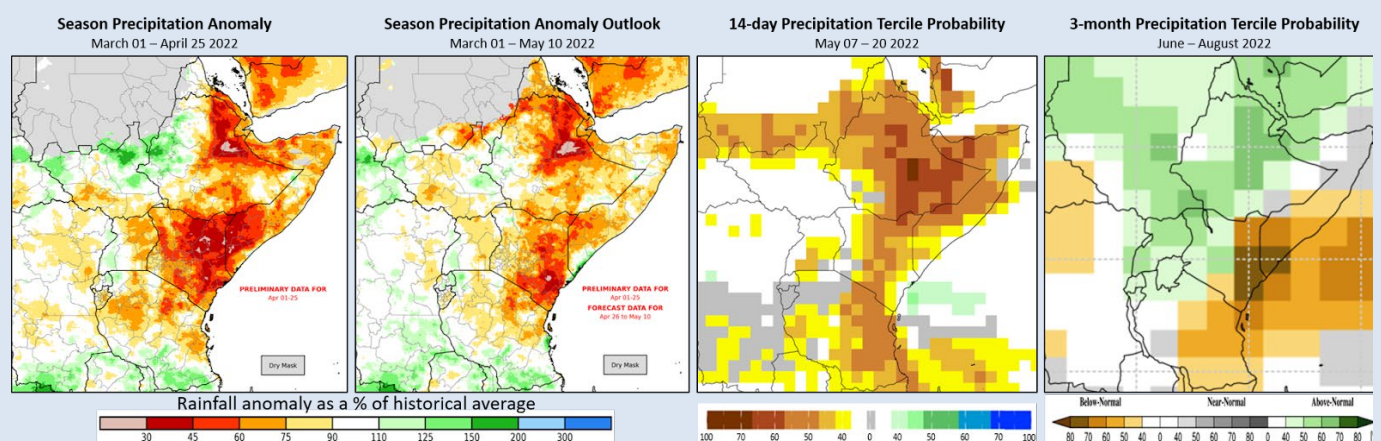
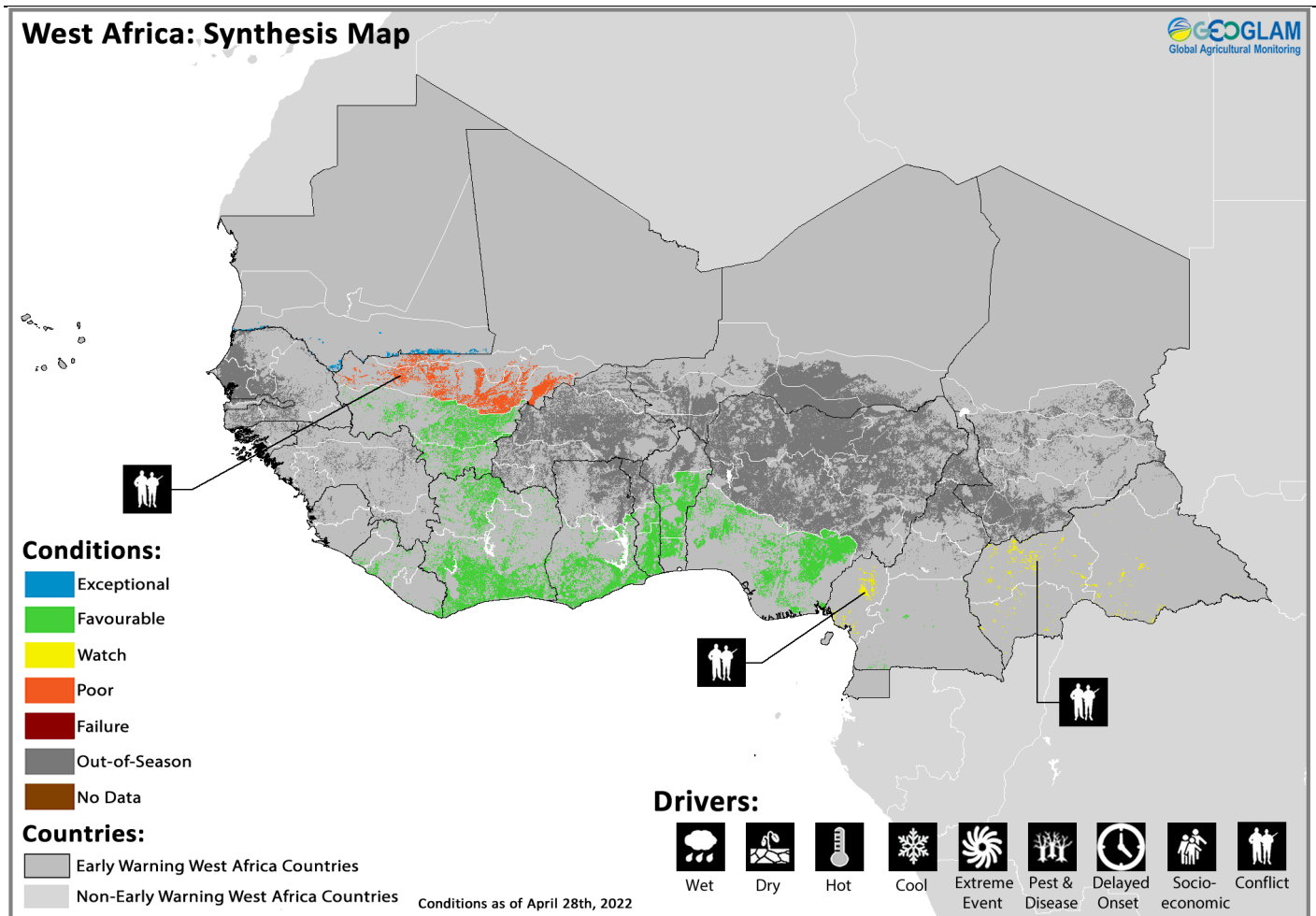


Figure 1. March 2022 rainfall anomaly, a 15-day rainfall anomaly forecast, and a 3-month rainfall probability forecast. The far-left panel shows the seasonal rainfall performance, represented as a percent of the 1981-2021 CHIRPS historical average, for March 2022 based on preliminary CHIRPS data. The left-middle panel shows a 15-day CHIRPS-GEFS (unbiased GEFS) forecast from March 29th, with values indicating how the forecast compares to the CHIRPS average for this period. The right-middle panel is a WMO probabilistic forecast for April-to-June 2022 precipitation, based on models initialized in March. From the WMO Lead Centre Long-Range Forecast Multi-Model Ensemble. The far-right panel is an IGAD Climate Prediction and Applications Centre (ICPAC) probabilistic forecast for June-to-August 2022 precipitation.

Source: UCSB Climate Hazards Center

West Africa



Crop condition map synthesizing crop conditions as of April 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, planting of 2022 main season maize is underway along the Gulf of Guinea, including **Liberia**, **Cote d'Ivoire**, southern **Ghana**, southern **Togo**, southern **Benin**, and southern **Nigeria** as well as in the **Central African Republic**. Planting conditions in these areas are mostly favourable. However, concern remains throughout the **Central African Republic** due to persisting conflict. Forecast drier than normal conditions for southern and central parts of coastal countries along the Gulf of Guinea through September may impact seasonal outcomes in affected regions (See Regional Outlook Pg. 9). Additionally, planting of second season maize crops continues in southern **Cameroon**, and concern remains in the southwest due to ongoing conflict that has resulted in disruptions to agricultural activities, cropland abandonment, and a declining agricultural workforce.

Harvesting of second season rice crops finalized in **Mali** under favourable conditions in the south and poor conditions in the centre due to persisting conflict. In southern **Mauritania**, harvesting of second season rice crops is nearing completion, and above-average yield and production are expected as favourable weather conditions supported an expansion in planted area and favourable growing conditions.

Regional Outlook: Increased chances for below-normal rainfall from May to June across parts of the region

During recent weeks, rainfall conditions were mixed in West Africa (Figure 1-top-left). In southern Cameroon, below-average rainfall during late-March to early-April was followed by average rainfall amounts later in April. Southern portions of Nigeria, Benin, and Togo received above-average rainfall during mid-to-late April. Portions of Guinea, Sierra Leone, and Cote d'Ivoire had lackluster rainfall performance and accumulated minor rainfall deficits.

According to several international multi-model forecasts, between May and June, there are increased chances for below-normal rainfall mostly across Gulf of Guinea regions. Figure 1-top-middle shows the WMO forecast that is based on early-April initial conditions. A more recent forecast, the IRI probabilistic SubX forecast for [May 7th to 20th](#), also shows increased chances for below-normal rainfall in many of these locations. Close monitoring of rainfall performance is warranted. Between July and September, the forecasts indicate continued drier-than-normal conditions in southern areas of West Africa, and related to this pattern, above-normal rainfall across the Sahel (Figure 1-top-right). According to the PRESASS 2022 outlook for the Sudanian and Sahelian zones, a rainier-than-average season is expected in 2022 in the Sahel, with generally early starting dates, late ending dates, short dry spell durations in the western part and average dry spell durations in the eastern part, and overall above-average or average flows in the main river basins. PRESASS probabilistic forecasts for May-to-July and July-to-September precipitation are shown in the bottom panel of Figure 1.

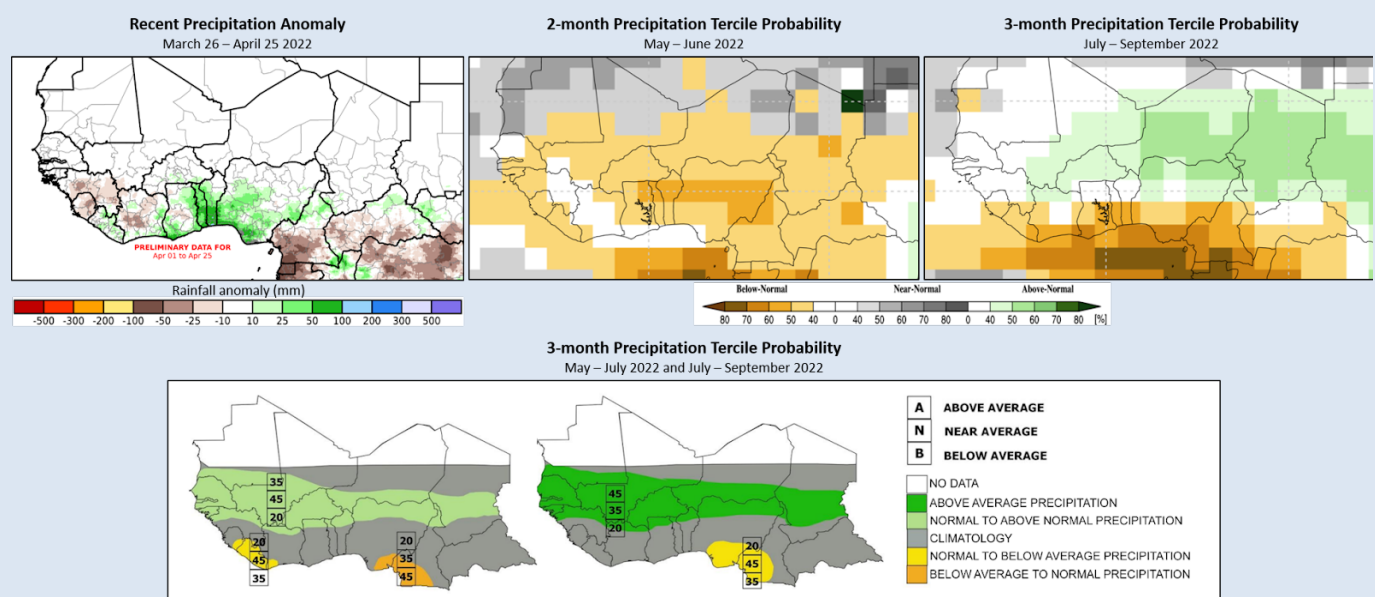
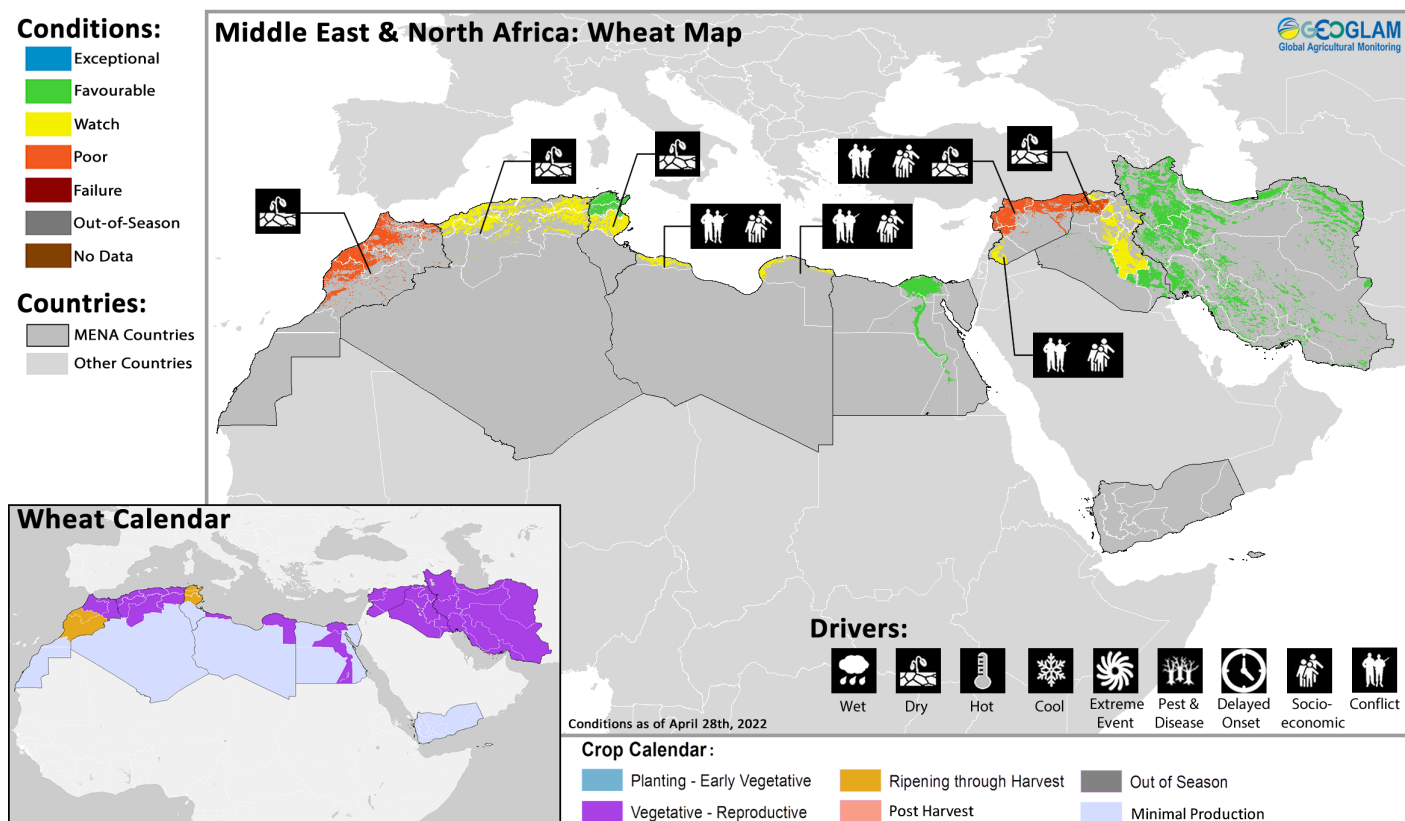


Figure 1. Recent rainfall anomaly, and May-June and July-September probability forecasts. The top-left panel shows the recent 6-pentad rainfall performance, represented as a difference from the 1981-2021 CHIRPS historical average, for March 26th to April 25th, 2022 based on final CHIRPS data for March and preliminary CHIRPS data for April. The top panel also shows WMO probabilistic forecasts for May-June 2022 (middle) and July-August-September 2022 precipitation (right), based on models initialized in April. From the [WMO Lead Centre Long-Range Forecast Multi-Model Ensemble](#). The bottom panel shows PRESASS 2022 probabilistic forecasts for May-June-July 2022 (left) and July-August-September 2022 precipitation (right). PRESASS 2022 (April 25th, 2022, Abuja, Nigeria) was organized by the CILSS AGRHYMET Regional Centre, ACMAD, the National Meteorological and Hydrology Services (NMHSs), with the collaboration of WMO and River Basin Organizations.

Source: UCSB Climate Hazards Center

Middle East & North Africa



Crop condition map synthesizing wheat conditions as of April 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, harvesting of winter wheat is about to start in **Morocco** and **Tunisia** while crops continue to develop elsewhere in the subregion. Crop conditions remain mixed as dryness throughout much of the season is likely to result in below-average yields in **Morocco**, northern **Syria**, and Ninewa governorate in northwestern **Iraq** and continues to cause concern in **Algeria**, central **Tunisia**, southwestern **Syria**, and the Kurdistan Region and Diyala governorate of northern **Iraq**. In **Morocco**, yields are likely to be affected by persistent dryness throughout the season despite good rains in early March. Conversely, recent good rains in **Algeria** may mitigate crop loss in localized areas. Areas that typically receive rainfall in May and June in the eastern Mediterranean and northern Middle East are likely to experience drier than normal conditions in May, and hotter than normal temperatures are expected for much of the subregion through August (See Regional Outlook Pg. 11). In **Syria**, Aleppo, Hassekeh, and Dahuk governorates have been the worst affected by dry conditions, particularly at the start of season. In **Iraq**, reduced production is expected in Ninewa governorate while concern remains in the Kurdistan Region, including Duhok, Erbil, Halabja, and Sulaymaniyah governorates, as well as in Diyala governorate due to a combination of dry conditions and the government's decision to halve the irrigated cereals area. Conversely, conditions in Erbil and Kirkuk governorates remain relatively favourable. In eastern **Syria**, northern and eastern **Iraq**, and the whole of **Iran**, high temperatures (up to 6C above-average in parts of **Iran**) since the start of April have accelerated growth of cereals. Additionally, persisting conflict and socio-economic challenges continue to impact agricultural activities in **Libya** and **Syria**.

Regional Outlook: Drier than average conditions have prevailed across much of the region, and little improvement is likely despite recent rainfall

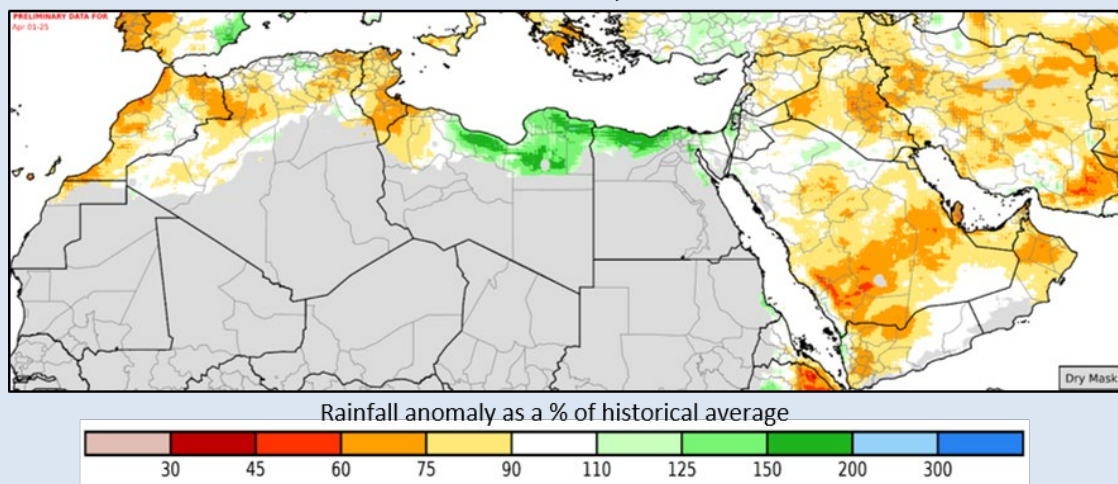
In recent weeks, moderate rainfall occurred in western North Africa. Other areas received mainly low amounts (< 25 mm). In Morocco, a wet spell from late-March into early-April brought above-average rain to some coastal areas. Since then, most areas in Morocco received low rainfall amounts, and western and interior areas were mainly drier than average. In Algeria, wet spells occurred in mid-April, in central coast locations, and in late-April, in the east. Aside from central coast locations, past 30-day totals were mainly below-average to average. Rainfall in coastal Tunisia was average-to below-average between March 26th and April 25th.

In northwestern Africa, the main part of the November-to-May rainfall season was substantially drier than average and poorly distributed. Despite the episodic rain events, most of these still have below-average season-to-date totals as the rains came too late for significant recovery (Figure 1-top). November-to-late-April totals are 60 to 75% of average in many crop-growing locations in Morocco, eastern and interior areas of northern Algeria, northeastern Tunisia, and northwestern Libya. Season-to-date surpluses in Libya and Egypt are mainly attributed to a wet December and January. In the Middle East, generally drier-than-average conditions have prevailed since November, except for episodic, above-average rainfall in December, January, and March.

Moderate rainfall amounts are forecast in northern Algeria during late-April to early-May, based on GEFS and ECMWF forecasts from April 28th. Nearby areas in eastern Morocco and northern Tunisia might receive light rain from this system. In Libya and most MENA areas to the east, typically, little rain occurs in May and June. Rainfall-receiving areas in the eastern Mediterranean and northern Middle East will likely be drier than normal during May, based on IRI SubX probabilistic forecasts for [May 7th to 20th](#) and [May 14th to 27th](#) and WMO, NMME, and C3S ensemble forecasts. Hotter-than-normal temperatures during the late-spring and summer months will very likely impact the MENA region, as well as across the Mediterranean, and southern and eastern Europe (Figure 1-bottom), which will increase the risks of damaging heat waves in these areas.

Season Precipitation Anomaly

November 01 2021 – April 25 2022



4-month 2m Temperature Tercile Probability

May – August 2022

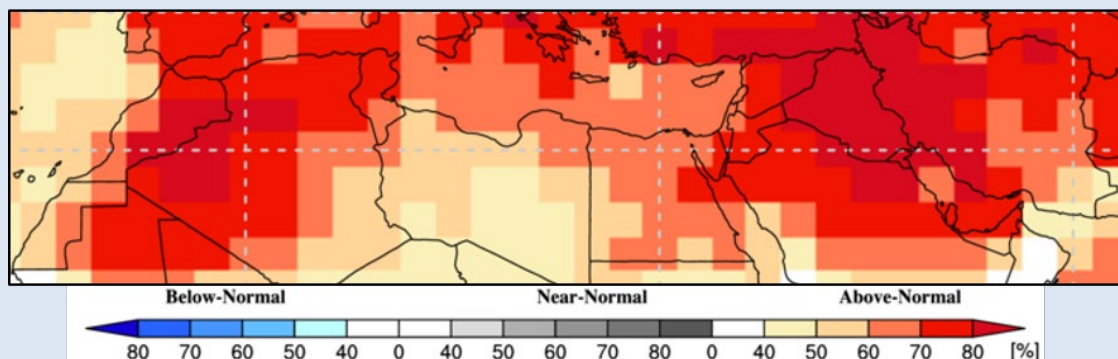
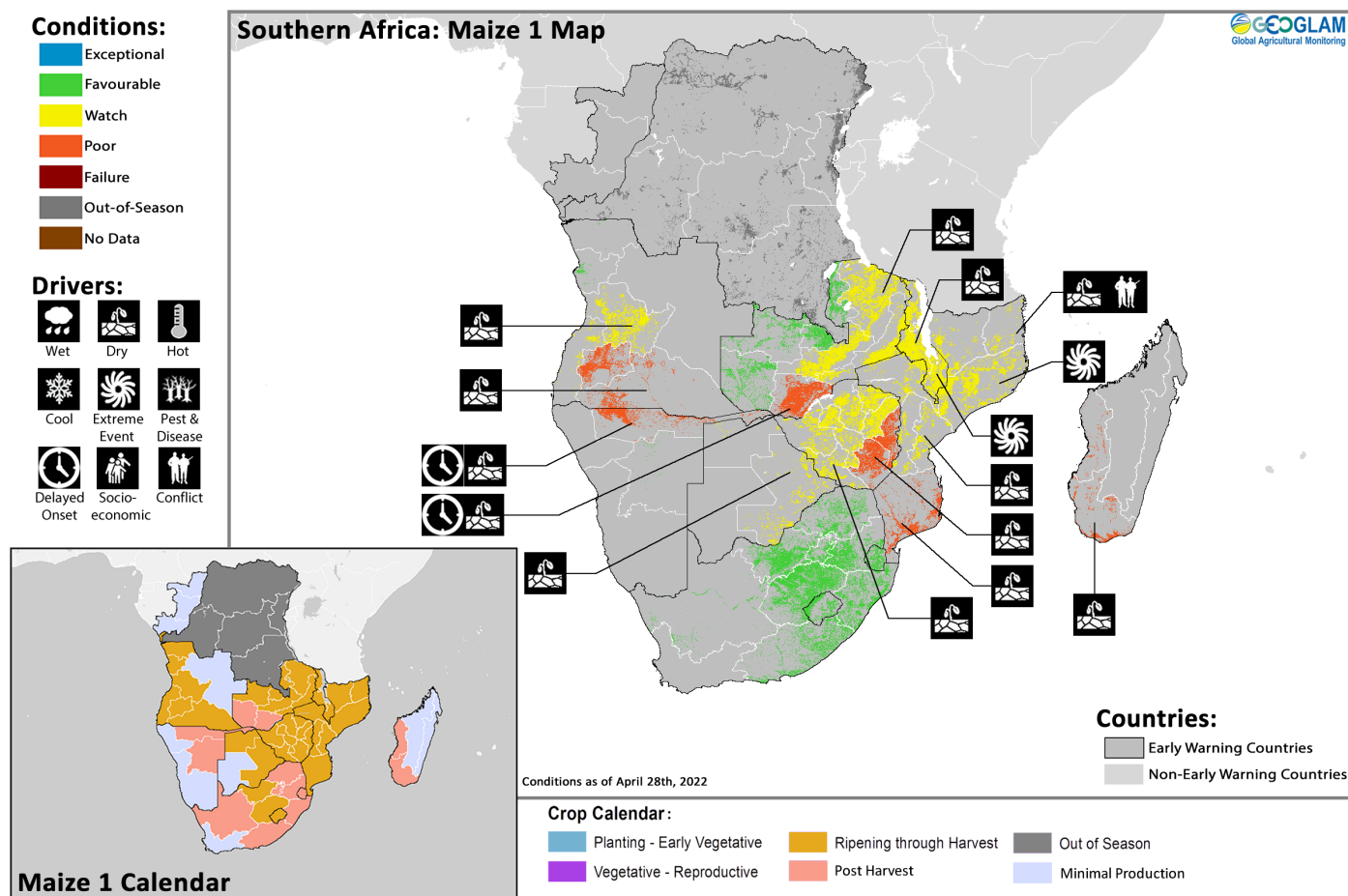


Figure 1. November-to-April 25th rainfall anomaly and a 4-month 2m temperature probability forecast for May-August 2022. The top panel is a CHC Early Estimate, which compares the November 1st, 2021 - April 25th, 2022 rainfall amounts to the 1981-2021 CHIRPS average. This outlook uses CHIRPS final data through March and preliminary data for April. The bottom panel is the WMO probabilistic forecast for May-to-August 2022 2m temperature, based on models initialized in April. From [WMO Lead Centre Long-Range Forecast Multi-Model Ensemble](#).

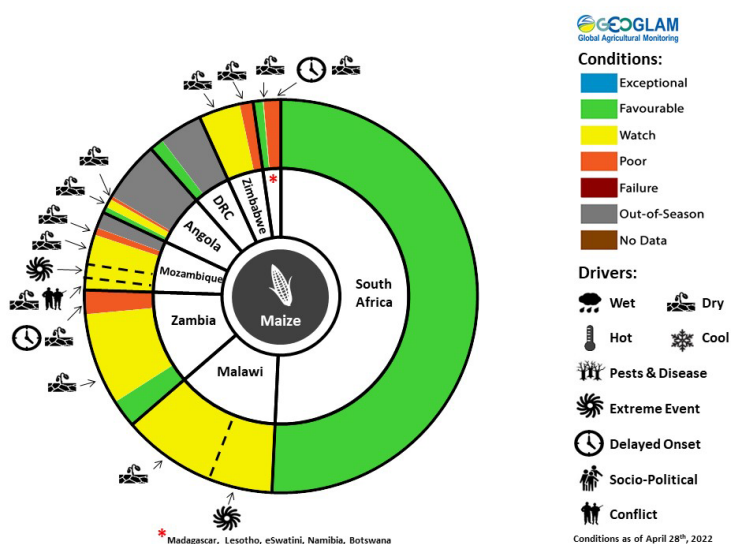
Source: Climate Hazards Center

Southern Africa



Crop condition map synthesizing Maize 1 conditions as of April 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 is nearing completion across the subregion and will finalize in most areas in May. Below-average yield outcomes are expected in southern **Angola**, northern **Namibia**, southeastern **Zambia**, east and southeastern **Zimbabwe**, southern **Mozambique**, and south and western **Madagascar**, and concern remains in central and western **Angola**, **Botswana**, parts of **Zimbabwe**, parts of **Zambia**, north and central **Malawi**, and parts of **Mozambique** due to delayed rainfall onset and persistent dryness. Furthermore, concern remains in central **Mozambique**, southern **Malawi**, and eastern **Madagascar** due to the passage of several tropical storms from the beginning of the year as well as in Cabo Delgado province of **Mozambique** due to persisting conflict. Elsewhere, conditions remain favourable, and near-average yields are expected. In **Angola**, below-average yield outcomes are likely in southern areas of Huila and southern provinces as rainfall has remained well below-average with little improvement in early April, resulting in below-average soil conditions and water availability impacting crops. Concern also remains along the western coast and central areas due to poor rainfall distribution and areas of below-average rainfall. There has been little improvement in vegetation conditions in these areas despite some rainfall received from early to mid-April. Conversely, growing conditions remain favourable in the north and east. In **Botswana**, concern remains in the north and east due to previous below-average rainfall in February that may impact seasonal outcomes. Erratic rainfall through March was followed by significant rainfall in early to mid-April that helped to improve seasonal totals, benefitting soil moisture and vegetation conditions. However, heavy rainfall may have resulted in localized instances of inundation or waterlogging. In **Madagascar**, maize crops in the south and west are unlikely to recover from long-term moisture deficits. Below-average rainfall persisted through March and April, leading to severe drought over southern areas that has degraded soil and vegetation conditions. Above-average temperatures since the start of the season have further exacerbated dry conditions. Concern remains for rice crops in the west and centre due to delayed rainfall onset and below-average seasonal totals despite rainfall received from the passage of two tropical cyclones. Conversely, there is concern in the east due to potential storm damage. According to the April 11th Agromet Update from the Southern African Development Community (SADC), 60,000 hectares of rice were flooded twice in the east due to the passage of Tropical Cyclone Batsirai in early February and Tropical Cyclone Emnati in late February, which could have impacts for seasonal outcomes in July. In **Malawi**, concern remains in the north and centre due to erratic rainfall through much of the season. However, rainfall improvements in mid-March to early April have resulted in soil moisture and vegetation improvements, and additional forecast rainfall in late April is likely to benefit late-planted crops. There is also concern in the south due to earlier heavy rainfall and flooding from the passage



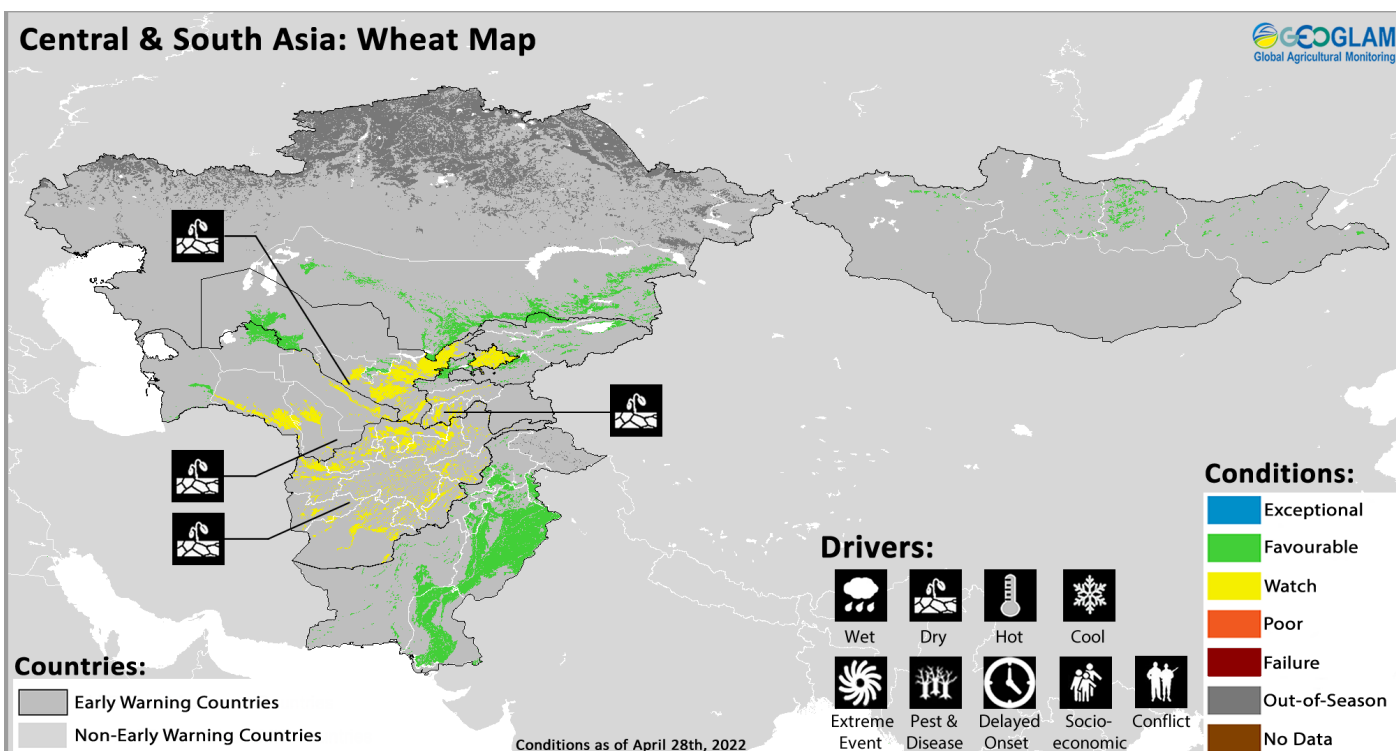
For detailed description of the pie chart please see description box on Pg. 19.

of three tropical storms from the beginning of the year that may result in yield reductions. In **Mozambique**, conditions in the south remain poor, and concern remains throughout the country due to below-average rainfall since January in most areas. Rainfall improvements from March and April helped to improve moisture deficits, but conditions remain below-average in Sofala, Manica, and Cabo Delgado provinces. There is also concern in Cabo Delgado province due to ongoing conflict. Conversely, seasonal totals remain near-average in the central region due to large rainfall amounts received from the passage of tropical storms, though crop prospects remain uncertain due to potential storm damage. In **Namibia**, maize crops in the north are unlikely to recover from irregular rainfall distribution throughout the season. Concern remains for millet crops in the north and east, and harvesting will begin in May. In **South Africa**, normal to above-normal rainfall, with a good temporal distribution from early summer through autumn, coupled with near-normal temperatures supported maize production through the growing season. Conditions in the northeast have recovered from previous uneven rainfall

distribution, and harvesting conditions are favourable throughout the country. From April 9th, heavy rainfall resulted in severe flooding and landslides in south and southeastern areas, particularly in KwaZulu-Natal and Eastern Cape provinces. On April 11th, areas within Margate, Durban, Sezela, and Mount Edgecombe received more than 300mm of rainfall in 24 hours. A National State of Disaster has been declared in response, and the KwaZulu-Natal Provincial Government stated that the province had experienced one of the worst weather storms in the history of the country. Overflow of the Amanzimtoti, Umbilo, and Umgeni rivers caused widespread damage along river banks. However, the flooding is likely to have a minimal impact on production outcomes as it mostly impacted marginal cropping areas along the coast and adjacent interior. In **Zambia**, crops in the southeast are unlikely to recover, and concern remains in the northeast, east, and centre due to suppressed rainfall throughout the season. Conversely, conditions remain favourable in the northwest, west, and southwest. In **Zimbabwe**, crops in the east, southeast, and southwest are unlikely to recover, and concern remains throughout the country due to uneven distribution of seasonal rains. In Manicaland, below-average soil moisture conditions and poor outcomes for the previous rainy season may have negatively impacted irrigation water supply. Conversely, planting conditions for winter wheat crops are favourable. In the **Democratic Republic of the Congo**, harvesting of main season sorghum crops finalized in the centre under favourable conditions, and crops in the southeast and north continue to develop under favourable conditions. Harvesting of second season maize crops is underway in the centre and southeast while planting and development continue in the central-east and north, and overall conditions are favourable.

Planting of winter wheat has just begun in **Lesotho**, **South Africa**, and **Zimbabwe** for harvest from September, and planting conditions are favourable. Land preparation is underway in **Zambia**, and planting will begin in May.

Central & South Asia



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

In Central and South Asia, harvesting of winter wheat continues in **Pakistan** while crops continue to develop in **Afghanistan, Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan, and Uzbekistan** for harvest from May. Conditions remain mixed as dryness persists in **Afghanistan** and in areas of **Turkmenistan, Uzbekistan, and Tajikistan** where precipitation levels were below-average in April. Despite reduced rainfall in the first two dekads of April in parts of **Kazakhstan** and in **Kyrgyzstan**, soil moisture levels are reported to be near-average in most of these areas, and growing conditions remain favourable except in localized central areas of **Kyrgyzstan**. Planting of spring wheat has begun in **Afghanistan, Kazakhstan, Kyrgyzstan, and Mongolia** for harvest from July, and there is concern in **Afghanistan** due to current and forecast dry conditions. Elsewhere, planting conditions are favourable. Below-normal rainfall is forecast for much of the subregion through June, except in parts of **Pakistan**, and drought conditions are not expected to improve for several months (See Regional Outlook Pg. 15).

In **Pakistan**, harvesting of winter wheat continues under favourable conditions. Wheat production is forecast at a near-average level but below the target of 28.9 million tonnes set by the government at the start of the season as yield was affected by shortages of urea for fertilizer and irrigation water supply as well as a record-breaking heatwave in March. March 2022 was the hottest March on record since 1961, and farmers have had to use water sparingly. Sowing of main season maize crops began in April for harvest from mid-September, and sowing conditions are favourable. In **Afghanistan**, below-average cumulative precipitation from October 2021 to mid-April 2022 was observed in southwest, north, central highlands, and northeastern parts of the country, particularly impacting rainfed wheat, and below-average and near-record low snow water volumes persist in most basins of the country as of mid-April. Low soil moisture and snow water volumes have led to moisture stress in the northern wheat belt. Precipitation outcomes during the next several weeks will be critical as wheat crops enter the flowering stage. However, below-average rainfall and above-average temperatures are forecast through August, and low water availability may impact the cultivated area for spring wheat (See Regional Outlook Pg. 15). In **Mongolia**, spring wheat planting operations are underway under favourable conditions and will finalize at the end of May. Adequate irrigation water supply as well as support by official programmes promoting wheat production are expected to keep the planted area at an above-average level.

Regional Outlook: Significant precipitation deficits are present across much of the region, and improvement is unlikely

Very little precipitation was observed in recent weeks. Many southern areas received around half, or less-than half, of typical amounts during March 21st to April 20th (Figure 1-left). Some of the worst-impacted areas were western and central Tajikistan, southern Uzbekistan, eastern Turkmenistan, central and northern Afghanistan, and northeastern Pakistan. Mixed conditions occurred in northern areas, with above-average precipitation in central and southeastern Kazakhstan. Higher-than-average precipitation occurred in late-April in portions of western, central, and northern Afghanistan, western Tajikistan, and southeast Uzbekistan.

Across the region, many areas carried precipitation deficits through the winter and spring (Figure 1-middle). The severity of these deficits fluctuated by location and with episodic wet periods (e.g., mid-December to mid-January). The recent much drier-than-normal conditions led to a substantial worsening of earlier conditions, from late-March, in central and northern Afghanistan and nearby areas up-to southern Uzbekistan. In some of these areas, seasonal totals currently rank [among the lowest](#) in the past 40 years, based on available data. In Afghanistan's northern wheat belt, and other areas, warm and dry conditions reduced soil moisture to historically low levels for late-April, creating growing conditions that are unfavorable for water-sensitive crops. Recent precipitation may have only partially eased moisture stress.

In Afghanistan, most areas will likely finish the winter and spring season with 60% to 90% of average precipitation amounts. Below-average precipitation combined with above-average temperatures have led to record-low snowpack and reservoir levels that will limit water supply needed in coming months for second crop cultivation. According to the [Afghanistan Seasonal Monitor](#), above-average temperatures rapidly depleted snow water volumes in all the basins in the country, and as of April 17th, record minimum snow water volumes were observed in Panj, Kokcha-Ab-I-Rustaq, Khanabad, Kunduz, and Kabul basins.

Agricultural and hydrological drought conditions are not expected to improve until at least the next wet season, which begins in October 2022. The main precipitation season is ending and remains drier-than-normal (Figure 1-right). Faster-than-usual snow melt was triggered by above-normal temperatures in recent weeks, and forecast warmer-than-normal conditions could rapidly deplete seasonal snowpack in many areas. This is the second year in a row with below-average winter and spring precipitation associated with two back-to-back La Niña events. If a third consecutive La Niña develops later this year (~ [50% chance](#)), ongoing depletion of water supply and increased chances for a third below-average precipitation season will worsen an already highly concerning situation.

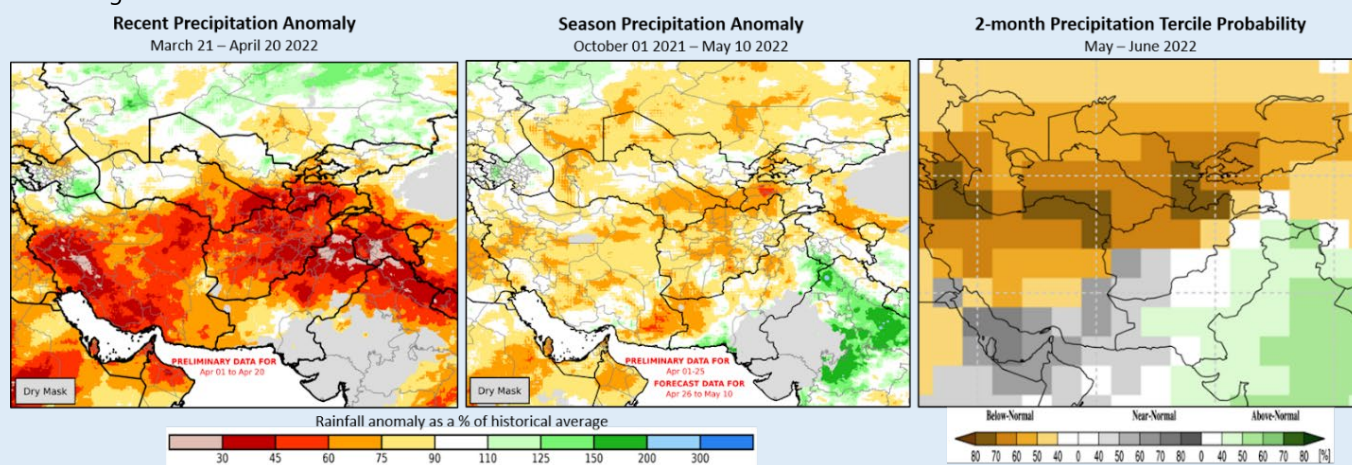
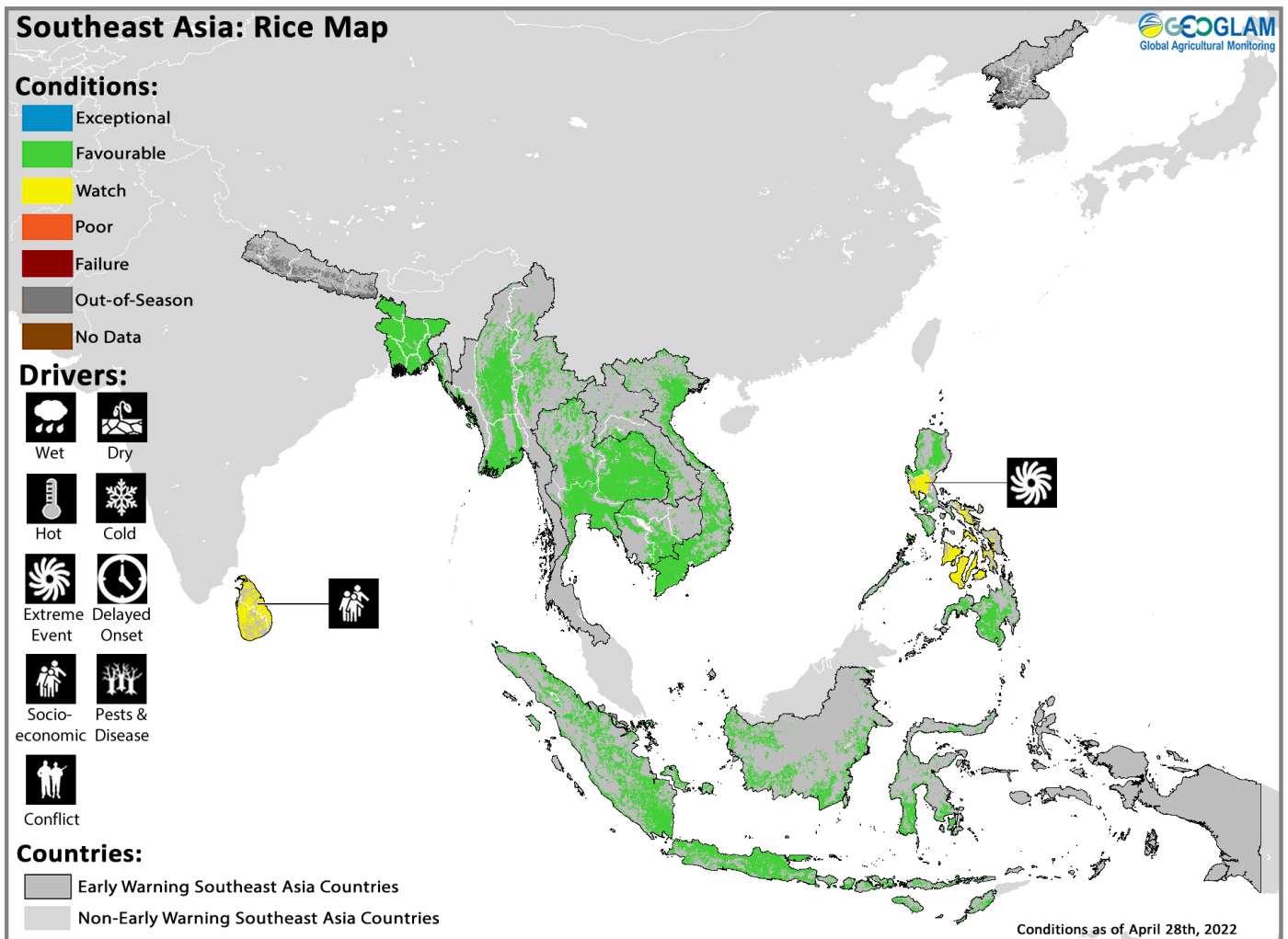


Figure 1. 30-day and October 1st-to-May 10th precipitation anomalies, and a 2-month precipitation probability forecast for May-June 2022. The left and middle panels are CHC Early Estimates, which compare March 21st to April 20th, 2022, and October 1st, 2021 to May 10th, 2022 precipitation totals to the 1981-2021 CHIRPS average. These use CHIRPS final data through March, preliminary data for April. The middle panel includes in the total an unbiased GEFS forecast for April 26th to May 10th. The right panel is the WMO probabilistic forecast for May-to-June 2022 precipitation, based on models initialized in April. From the [WMO Lead Centre Long-Range Forecast Multi-Model Ensemble](#).

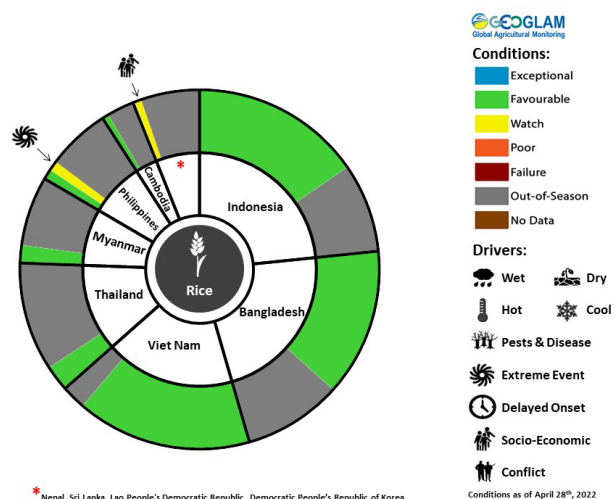
Source: Climate Hazards Center

Southeast Asia



Crop condition map synthesizing rice conditions as of April 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.**

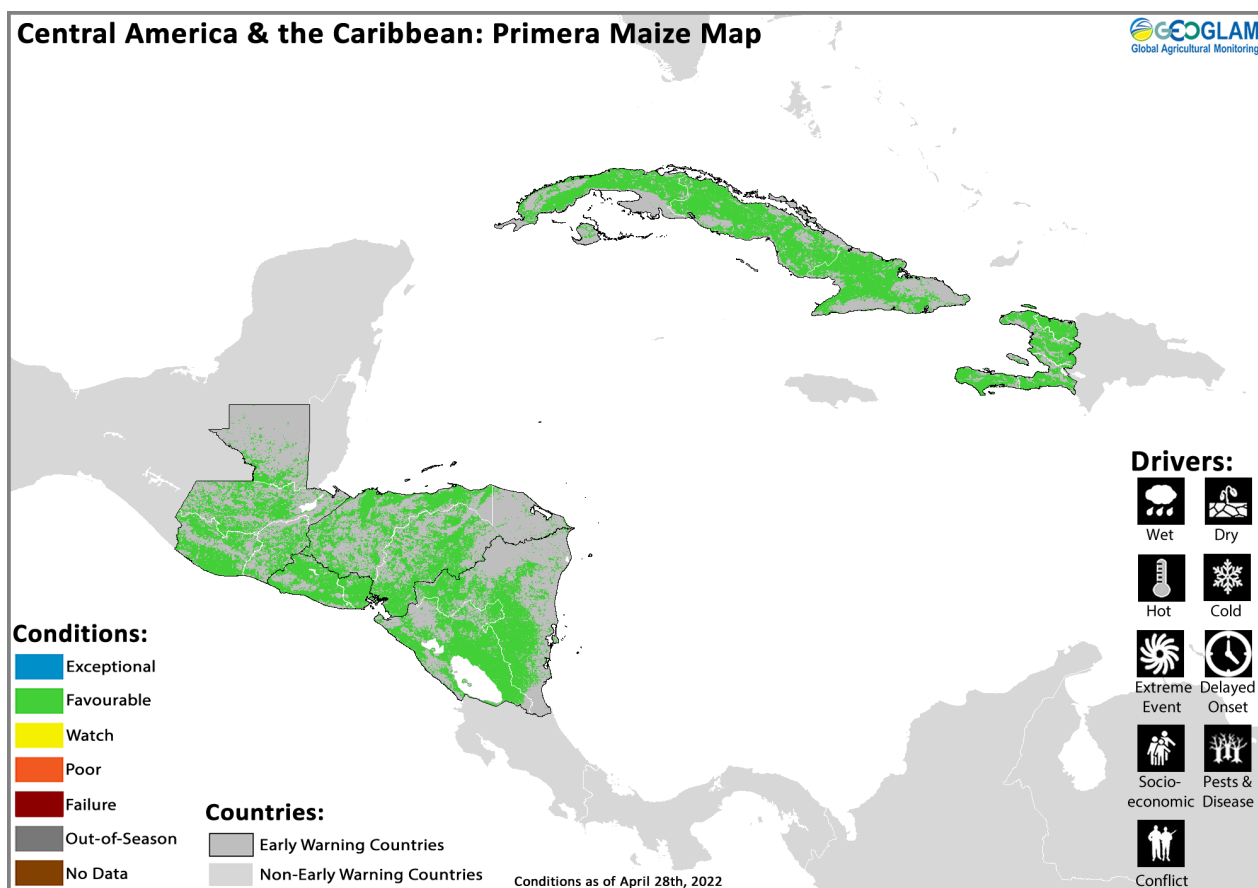
In northern **Southeast Asia**, harvesting of dry-season rice reached its peak in April. Conditions are generally favourable due to stable weather conditions except in the central **Philippines** where the passage of Tropical Storm Megi in early April is expected to result in yield reductions. However, final production amounts for the other regions are expected to be above-average. In **Indonesia**, harvesting of wet-season rice enters the fourth month with good yields, owing to ample rainfall and sunlight during the growing season. While April is typically the first month for planting of dry-season rice, planting activities are just beginning, and the planted area is limited. In the **Philippines**, harvesting of dry-season rice is continuing under generally favourable conditions except in areas impacted by Tropical Storm Megi. On April 9th, Tropical Depression Megi (locally named Agaton), formed over the western Philippine Sea before passing over the Eastern Visayas region in the centre-east of the country as a Tropical Storm on April 10th and 11th. The storm triggered flooding and landslides that resulted in significant crop damage and yield reduction in Visayas region. In **Thailand**, harvesting is ongoing for dry-season rice with an expected increase in yields and production compared to last year due to ample rainfall throughout the season. Despite increased prices of chemical fertilizers and fuel for pumping irrigation water, farmers expanded planted area due to an increase in rice prices. In **Viet Nam**, winter-spring (dry-season) rice is in the tillering and young panicle forming stages in the north, and yield is forecast to decrease slightly compared to the previous year as off-season rain in late March and early April in the north central region flooded more than 88,000 hectares of crops. Harvesting of winter-spring



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

(dry-season) rice is underway in the south, and current yield is the same as last year at 7.1 tons per hectare. Sowing of summer-autumn (wet-season) rice has begun in the Mekong River Delta under favourable conditions, and sowing has begun earlier than the previous year. In **Laos**, harvesting of dry-season rice is underway, and harvested area has reached 29 percent of the planted area. Conditions are generally favourable, and sufficient irrigation water supply has benefitted crop growth throughout the season. In **Myanmar**, planting of dry-season rice has completed with a total planted area of 0.94 million hectares, which accounts for 97 percent of the national planting plan. Harvesting of dry-season rice is underway, and 40 percent of the total planted area has been harvested with a yield of 4.82 tons per hectare, which is similar to last year's yield. While Cyclone Asani passed close by coastal areas in late March and brought heavy rainfall and strong wind to Ayeyarwady region, no significant damage was reported. In **Cambodia**, harvesting of dry-season rice is nearing completion, and yield is estimated at 4.6 tons per hectare. Growing conditions are favourable, and final yield is expected to be slightly higher than the previous year. In April, rainfall in some regions prompted farmers to plough their fields for planting of wet-season rice crops. In **Sri Lanka**, sowing of *Yala* season maize and rice crops is underway, and reduced planted area and yield are expected to result in reduced production due to limited availability and high prices of fertilizers. In **Bangladesh**, harvesting of *Boro* season rice crops began in April under favourable conditions, and harvesting activities will finalize in June. In **Nepal**, harvesting of the 2022 mostly irrigated wheat crop is ongoing in southern parts of the country while crops in the north are in late development stage with harvest expected to start from early May. Heavy rains in mid-October resulted in flooding in west and eastern provinces, delaying planting activities by about two weeks. Generally favourable weather conditions from November in combination with adequate supplies of irrigation water supported crop establishment and development. However, final yields may be affected by the reduced application of fertilizers, which are mostly imported, due to their high prices and limited availability. Planting of main season maize crops continued in April, and there are similar concerns regarding high prices and limited availability of fertilizers.

Central America & Caribbean



Crop condition map synthesizing *Primera* season maize conditions as of April 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, land preparation and early planting of *Primera* season maize and rice crops is underway in **Guatemala, Honduras, El Salvador, and Nicaragua** for harvest from mid-July, and planting conditions are favourable. Across the subregion, fertilizer prices have increased since the start of 2022, particularly in **Guatemala** where prices of fertilizer have doubled since December and are expected to have negative implications for *Primera* season yields. In **Honduras**, harvesting of second season rice crops finalized in April with near-average yield outcomes. There are increase chances of below-normal May to July rainfall throughout much of the subregion, and the 2022 hurricane season is likely to be more active than normal (See Regional Outlook Pg. 18).

In **Haiti**, planting and development of main season cereals continues under generally favourable conditions. While vegetation conditions are below-average in some localized rainfed areas of the northwest, irrigated crops are under favourable conditions with

normal development. However, well above-average precipitation in the second dekade of April may have resulted in localized flooding with possible negative impacts on crop development. In **Cuba**, harvesting of main season rice crops is underway and will finalize in June. Main season maize crops continue to develop under favourable conditions, and harvesting activities will begin in June. Planting of second season rice crops began in April under favourable conditions. In eastern areas, abundant precipitation in the second dekade of April replenished soil moisture levels with positive impacts on crop development.

Regional Outlook: Average to above-average early May rainfall likely across parts of the centre and south of Central America

During most of April, conditions were drier than average in Guatemala, Belize, and northwestern Honduras and wetter-than-average in western Cuba, Haiti, and portions of Hispaniola (Figure 1-top-left). In central Guatemala, the late onset of *Primera* rains could have delayed planting by two to three weeks. GEFS and ECMWF forecasts indicate a wet spell between late-April and early-May for central and southern Central America, while southern Hispaniola may be drier than average. Figure 1-top-right shows an outlook for April 1st-to-May 10th rainfall, including that two-week forecast from April 26th.

Longer-range SubX models and ECMWF forecasts indicate average- to above-average May rainfall in central and southern Central America, and show less agreement and more mixed conditions in northern and eastern areas of the region. According to several international multi-model forecasts, there are increased chances for below-normal May-to-July rainfall in northern Central America and Hispaniola, and increased chances for above-normal rainfall in southern Central America. The WMO forecast (Figure 1-bottom-left) identifies Haiti and the Dominican Republic as locations where there is more confidence in drier-than-normal conditions during May-to-July (50-60% chances). The Central America Climate Forum (FCAC) outlook for May to July 2022 (Figure 1-bottom-right) shows some agreement about increased chances of below-normal rainfall in Belize and in portions of Honduras, and increased chances of above-normal rainfall in southern Costa Rica and Panama. In contrast to the WMO forecast, the FCAC identified elevated chances of above-normal May-to-July rainfall in portions of central and western Guatemala and below-normal rainfall in western Nicaragua and eastern Costa Rica.

The 2022 Atlantic basin hurricane season is likely to be more active than normal, according to Colorado State University's extended-range forecast. While there is uncertainty at this time, atmospheric and ocean conditions may be similar to last year, which had the third most-active hurricane season on record.

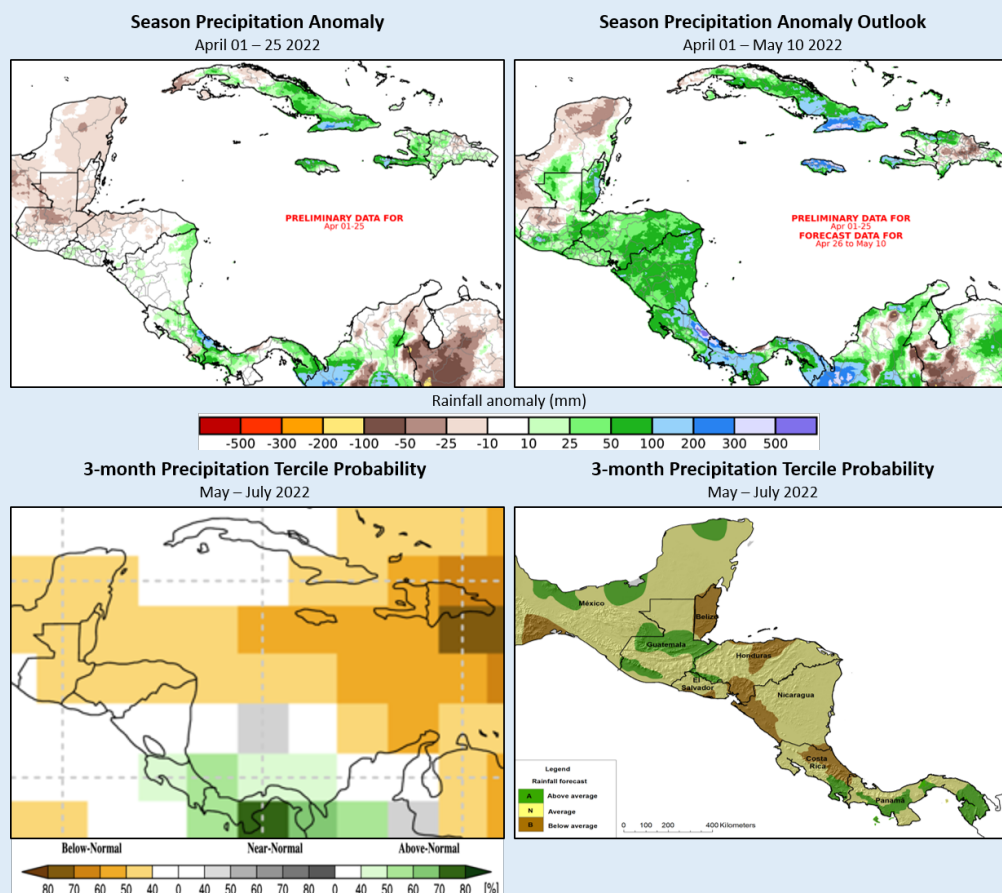


Figure 1. Recent rainfall anomaly, a rainfall anomaly outlook, and May-July rainfall probability forecasts. The top-left panel shows the April rainfall performance, represented as a difference (mm) from the 1981-2021 CHIRPS historical average, for April 1st to 25th, 2022 based on preliminary CHIRPS data for April. The top-right panel includes in the total an unbiased GEFS forecast for April 26th to May 10th. The bottom-left panel is the WMO probabilistic forecast for May-July 2022 precipitation, based on models initialized in April. From the WMO Lead Centre Long-Range Forecast Multi-Model Ensemble. The bottom-right panel is the Central America Climate Forum (FCAC) precipitation outlook for May to July 2022. The brown colour indicates below-average rainfall and green indicates above-average rainfall; otherwise, average conditions are most-likely. Central America COF Map provided from CRRH.

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 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 May 5th, 2022.

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



GEOGLAM

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Contributing partners



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