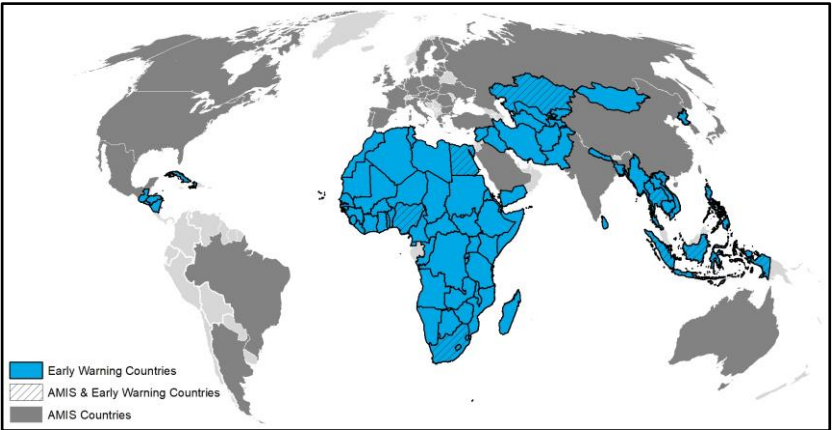


Crop Monitor

EARLY WARNING

Overview:

In **East Africa**, harvesting of main season cereals finalized under favourable conditions while second season cereals have been harvested with reduced outputs in areas impacted by below-average rainfall, desert locusts, flooding, and ongoing socio-economic challenges. In **West Africa**, harvesting of main and second season cereals finalized throughout the subregion under favourable conditions except in areas impacted by ongoing conflict. In the **Middle East and North Africa**, there is concern in parts of North Africa where dry conditions are impacting winter wheat crop development and in Syria and Libya where conflict continues to impact agricultural activities. In **Southern Africa**, above-average rains have supported crop development across central and southern areas; however, dry conditions persist in some areas, and damage resulted from heavy rains and flooding from Tropical Cyclone Eloise. In **Central and South Asia**, conditions are favourable for the planting and development of winter wheat crops except in parts of Afghanistan, Turkmenistan, and Uzbekistan where below-average precipitation is a concern. In northern **Southeast Asia**, harvesting of wet-season rice finalized in December under generally favourable conditions, and planting of dry-season rice is underway with concern in some areas due to limited irrigation water supply and flooding. In Indonesia, harvesting of dry-season rice finalized with a large increase in harvested area. In **Central America and the Caribbean**, harvesting of *Postrera/Segunda* season maize and bean crops finalized in December, and crop losses resulted in parts of Nicaragua, Guatemala, and Honduras due to Hurricanes Eta and Iota in November. *Apante* season bean crops are developing under favourable conditions.



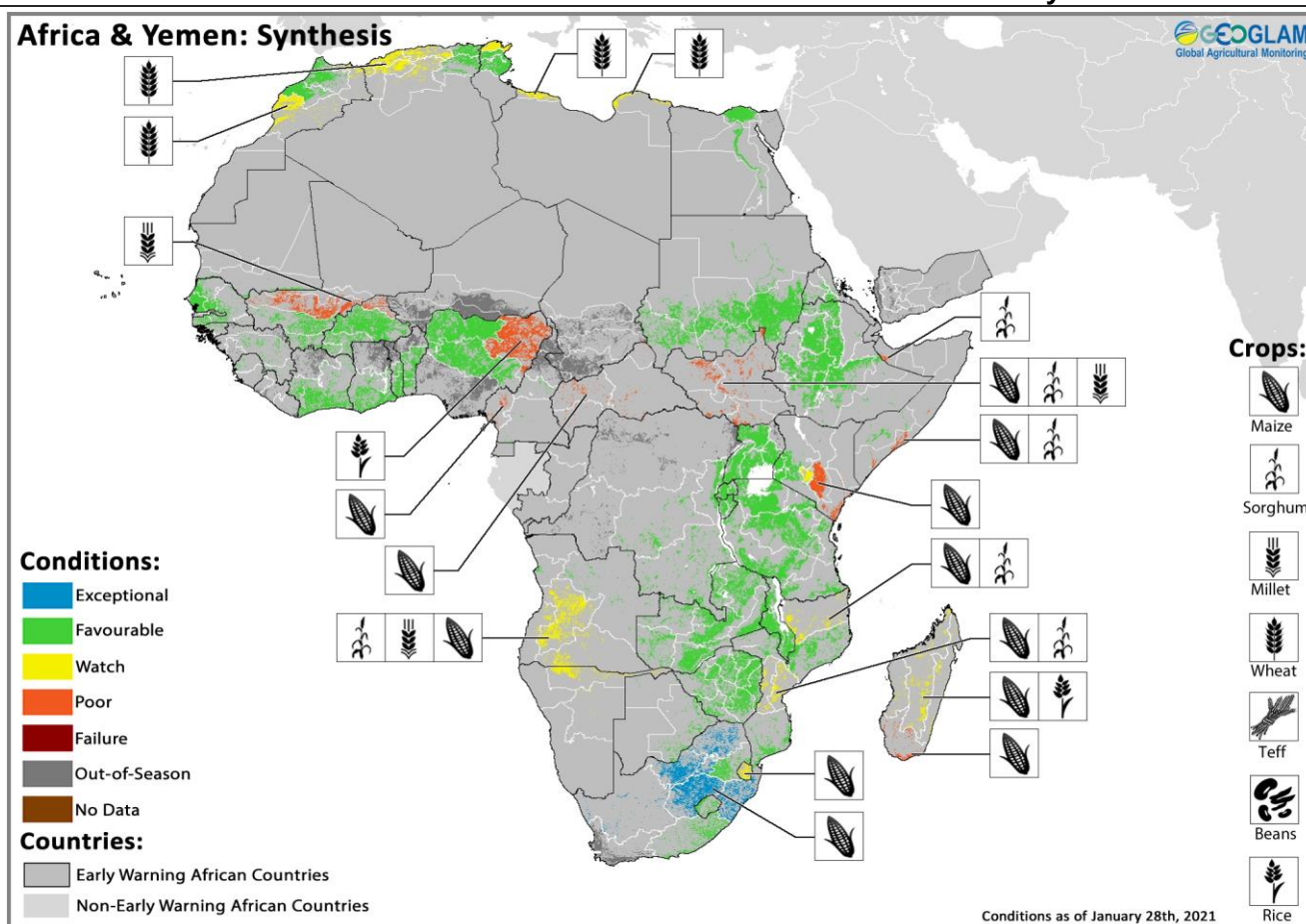
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GEOGLAM Crop Monitor for Early Warning

Crop Conditions at a Glance

based on best available information as of January 28th



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

EAST AFRICA: Harvesting of main season cereals finalized under generally favourable conditions while second season maize and sorghum crops have been harvested with reduced outputs in countries impacted by below-average rainfall, the desert locust outbreak, flooding, and socio-economic challenges (See Desert Locust Alert Pg. 4 and Regional Outlook Pg. 8). Below-average rainfall is also expected across parts of the region for the upcoming 2021 March to May (MAM) season owing to the presence of La Niña conditions (See Seasonal Forecast Alert Pg. 5).

WEST AFRICA: Harvesting of main and second season cereals finalized throughout the subregion under favourable conditions except in areas with dry conditions and ongoing conflict.

MIDDLE EAST & NORTH AFRICA: Wheat crops are in vegetative to reproductive stage for harvest from May onwards, and there is concern in parts of North Africa where dry conditions are impacting crop development and throughout Syria and Libya where conflict and socio-economic concerns continue to impact agricultural activities.

SOUTHERN AFRICA: Planting and development of main season cereals continued throughout the subregion. While rainfall has been above-average across central and southern areas, there is concern in several areas due to persistent dry conditions. There is also concern in central Mozambique due to potential impacts

from Tropical Cyclone Eloise in late January (See Regional Outlook Pg. 13).

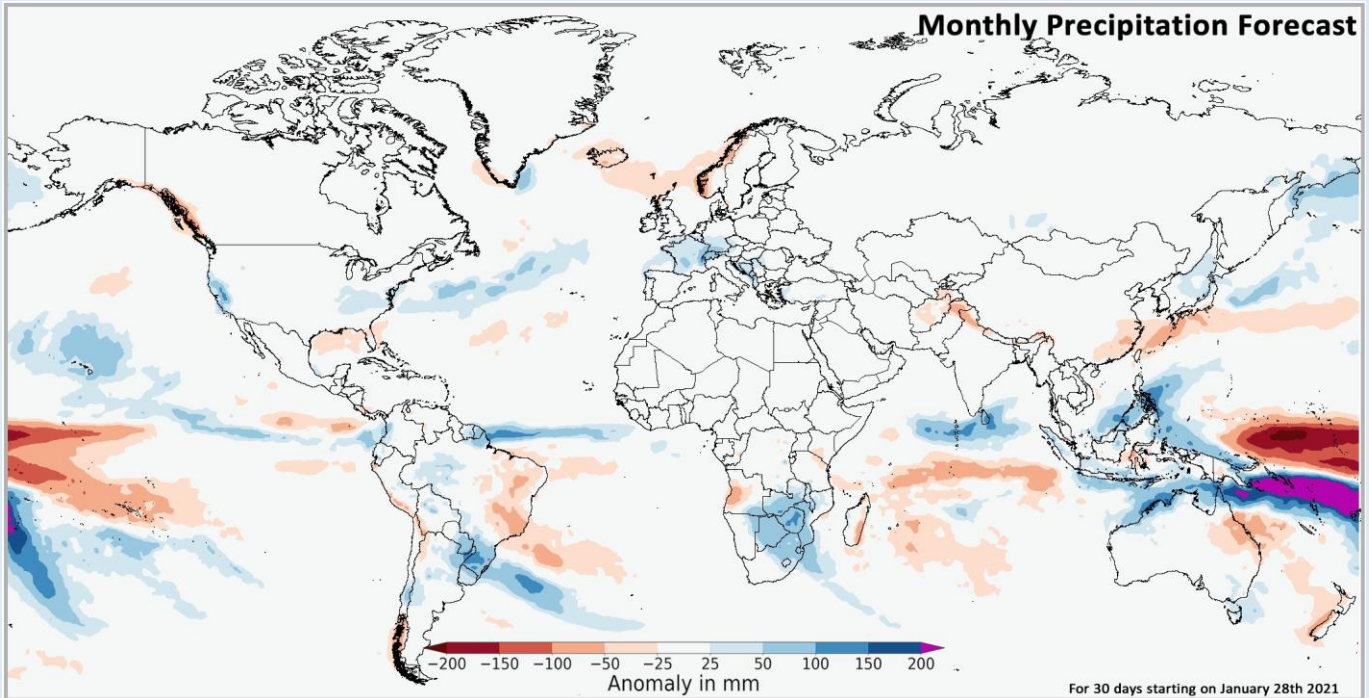
CENTRAL & SOUTH ASIA: Planting and development of winter wheat crops is underway under favourable conditions except in parts of Turkmenistan, Uzbekistan, and Afghanistan where below-average rainfall has been received and is forecast to continue (See Regional Outlook Pg. 15). In Pakistan, harvesting of main season rice crops finalized in December under favourable conditions.

SOUTHEAST ASIA: In the north, harvesting of wet-season rice finalized in December under favourable conditions except in parts of Myanmar and the Philippines due to dry conditions and crop damage resulting from seasonal monsoons and typhoons. Planting of dry-season rice is underway with concern in some areas due to limited irrigation water availability and flooding. In Indonesia, harvesting of dry-season rice finalized under favourable conditions, and sowing of wet-season rice is underway with a significant increase in sown area.

CENTRAL AMERICA & CARIBBEAN: Harvesting of *Posrtera/Segunda* season maize and bean crops finalized in December, and crop losses resulted in parts of Nicaragua, Guatemala, and Honduras due to Hurricanes Eta and Iota in November. *Apante* season bean crops are developing under favourable conditions.

Global Climate Outlook: Global 30-day Subseasonal Rainfall Forecast Anomaly for February 2021

The 30-day Subseasonal (SubX) forecast indicates a likelihood of above-average rainfall over California and the mid-Atlantic states US, Suriname, French Guiana, east Paraguay, Southern Brazil, Uruguay, northeastern Argentina, central Chile, France, southern Germany, Switzerland, Bosnia and Herzegovina, Montenegro, Albania, Botswana, Zambia, Zimbabwe, southern Mozambique, eSwatini, central and eastern South Africa, Sri Lanka, the Philippines, and Indonesia. There is also a likelihood of below-average rainfall across northeastern and southeast Brazil, Iceland, eastern Angola, eastern Madagascar, Afghanistan, northern Pakistan, northwest India, southeast China, southern Japan, Sulawesi Indonesia, and northern Queensland Australia.



Multimodel mean subseasonal forecast of global rainfall anomaly for the 30-days starting from January 28th showing areas of above or below-average rainfall. The image shows the average of four Subseasonal Experiment (SubX) model forecasts from that day. The anomaly is based on the 1999 to 2016 model average. Skill assessments of SubX can be accessed [here](#).

Source: UCSB Climate Hazards Center

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

The El Niño-Southern Oscillation (ENSO) is currently in the La Niña phase. This La Niña event is well-developed, with very cool ocean conditions in the eastern equatorial Pacific. [La Niña](#) conditions are expected to continue (95% chance for January to March and 55% chance for March to May) and then transition to ENSO neutral (55% chance for April to June).

La Niña conditions typically reduce February to March/May rainfall in East Africa, the southern United States, the northern Middle East, southern Central Asia, Afghanistan, Pakistan, and India. La Niña conditions typically increase February to March/May rainfall in Southeast Asia, Southern Africa, and in southernmost India and Sri Lanka. Southern Central America and northern South America typically see increased rainfall into February.

Source: UCSB Climate Hazards Center

Desert Locust Alert: Breeding is underway in southern Ethiopia and northern Kenya, and more swarms are expected.

Heavy rains from Cyclone Gati in November created favourable conditions for new swarms to form in eastern **Ethiopia** and central **Somalia**, and in late December, immature swarms from these areas moved to southern **Ethiopia** and northern **Kenya** where local breeding is underway. In January, more swarms formed in eastern **Ethiopia** and central **Somalia** that migrated to northeast and southern **Ethiopia**, **Eritrea**, **Djibouti**, **Kenya**, and **Tanzania**. Swarms are likely to decline in southern **Ethiopia** and **Kenya** while new swarms may form in northern **Somalia**, and new groups and swarms may form on the Red Sea coast of **Saudi Arabia**. A new generation of locusts is expected to emerge in early April, coinciding with seasonal rains and the planting period in **Kenya** and southern **Ethiopia**. Breeding is underway along both sides of the Red Sea coast, and in **Sudan** and **Eritrea**, adult groups and some swarms appeared on the coast and will cause hopper bands to form. In late January, several immature swarms arrived on the Red Sea coast and in southwest **Saudi Arabia**.

East Africa Update

In **Kenya**, immatures swarms from the north arrived in the northeast in late December, and more swarms arrived in the northeast along the Dawa River on the Ethiopian border and near El Wak and the Somalia border. Immature swarms are now spreading west throughout north and central areas, and a few are starting to mature. In the southeast, fledging is underway near Taita Taveta, and late instar hopper bands are present along the coast. Breeding near the Tanzania, Ethiopia, and Somalia borders has resulted in egg-laying and band formations, and locusts have invaded farms and pastures and are threatening vegetation in Taita-Taveta, Kilifi, and Tana River counties in the southeast. However, uneven rainfall distribution for the past four months has resulted in a large moisture deficit over south and eastern areas of Kenya, causing poor vegetation coverage (See Regional Outlook Pg. 8). More swarms from the north are expected to spread through northern and central areas, and there is a risk that a few swarms could reach eastern Uganda and southeastern South Sudan. In **Ethiopia**, immature swarms have spread throughout the region to the east of the Rift Valley and are moving northwards along the Rift Valley in SNNP region. Additional swarms are likely to appear in the Rift Valley south of Adama. In the northeast, swarms appeared in Afar Region and eastern Amhara region, and in the southwest, immature swarms are present in Oromia and SNNP regions where they will mature and begin laying eggs. In **Somalia**, recent heavy rains from Tropical Cyclone Gati in November created favourable breeding conditions in the north, and hopper bands are present on the northwest coast and in the northeast. Some swarms have remained in central areas while immature swarms in the south will continue to move towards Kenya. In **Eritrea**, breeding is underway on the north coast. In **Sudan**, breeding continues along the Atbara River in the northeast, and swarms are present on the Red Sea's southern coast near Eritrea.

Arabian Peninsula Update

In **Saudi Arabia**, swarms appeared on the Red Sea Coast and resulted in widespread breeding and hopper bands. Hopper groups and bands are present on the central coast and north, and immature adult groups remain in central areas. More hatching and band formation are expected on the coast. In **Yemen**, swarms are present in the highlands west of Sana'a, and scattered adults are present along the Red Sea and Gulf of Aden coasts. Swarms from coastal and highland areas migrated north towards Saudi Arabia. Small-scale breeding will commence with the onset of spring rains in southeast **Iran** and southwest **Pakistan**.

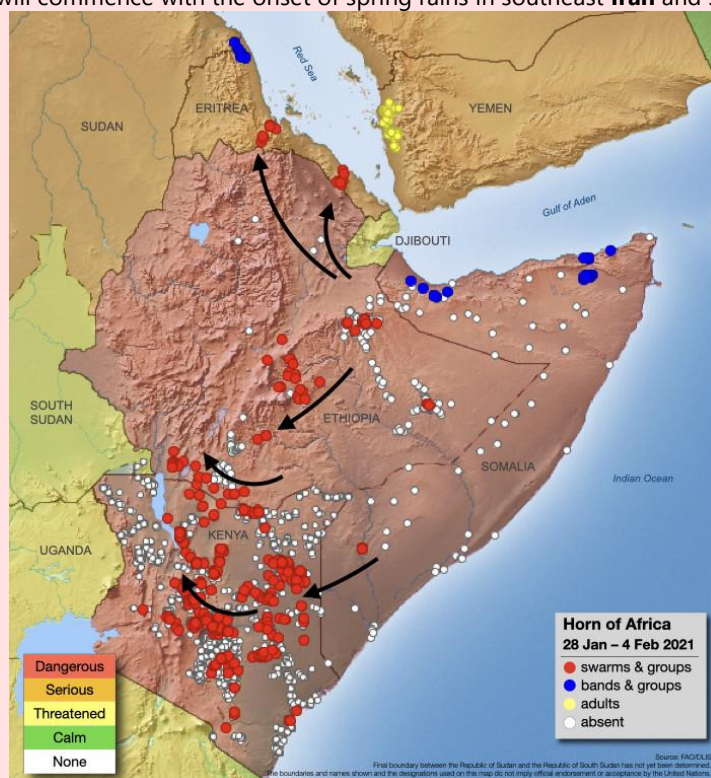


Figure 1. Desert Locust Update January 28- February 4 2021. Source: FAO DLIS

Seasonal Forecast Alert: Below-average 2021 March-April-May rains are anticipated across parts of Eastern Africa

Current and forecast ocean and atmosphere conditions continue to raise concern about a below-average 2021 March-April-May (MAM) “long” rains season. A Pacific temperature configuration conducive to drier outcomes is currently present and is forecast to remain active for MAM 2021.

In recent years, Pacific Ocean sea surface temperatures have often provided early indications of below-average long rains in eastern East Africa. A much warmer-than-average western and subtropical Pacific, combined with cooler-than-average central-eastern Pacific temperatures, tends to produce a teleconnection that disrupts typical moisture patterns, leading to an increased chance of below-average “long” rains. An analog assessment of MAM seasons in the past 20 years has shown a greater than 50% chance of below-normal rainfall.

This below-normal outlook for MAM 2021 in the eastern Horn is based on the persistence of cool equatorial central Pacific sea surface temperatures accompanied by very warm (1 to 2+ standard deviations above-average) western and subtropical northern Pacific sea surface temperatures (Figure 1- left). At present, a moderate to strong La Niña in the spring of 2021 is likely (55% chance for MAM 2021). Thus, heightened concern for MAM appears warranted. Dynamic forecast models perform poorly at this lead time for MAM, while statistical approaches do reasonably well. A statistical forecast based on the observed difference between western and central-eastern Pacific sea surface temperatures indicates a range of outcomes from very poor to average (Figure 1- right). Therefore, below-normal rains appear likely, but considerable uncertainty remains.

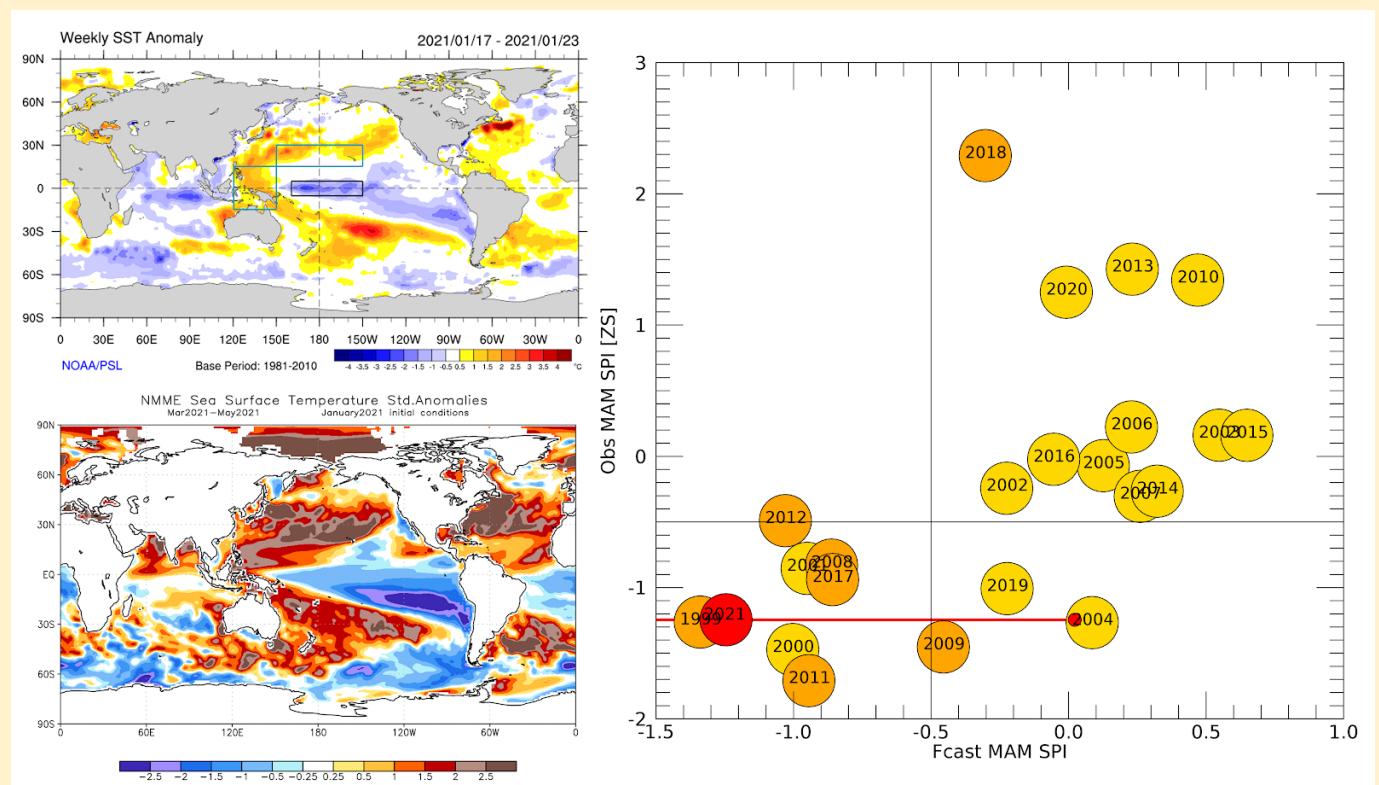
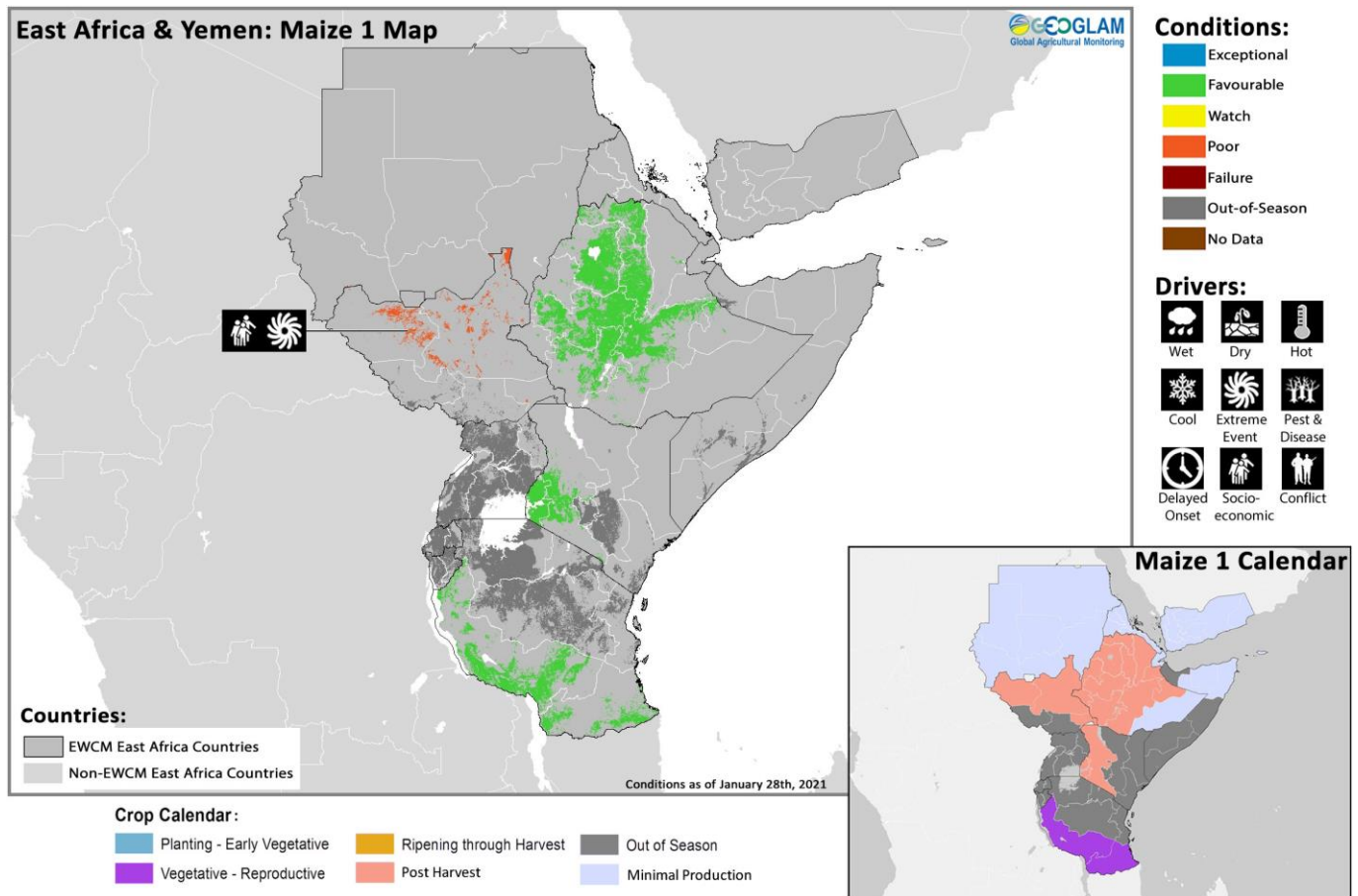


Figure 1. Global sea surface temperatures and forecast eastern East Africa March-April-May precipitation. Top left: Observed January 17 to January 23, 2021 sea surface temperature (SST) anomalies. Image from [NOAA PSL Map Room](#). Bottom left: North American Multi-Model Ensemble (NMME) forecast March to May 2021 SST standardized anomalies based on January 2021 initial conditions. Image from the [NOAA CPC NMME webpage](#). Right: Scatter plot of regression-based forecasts for 1997 to 2021 eastern East Africa March-April-May precipitation. Forecast predictors are observed preceding-year December SST in the western and subtropical northern Pacific and in the central-eastern equatorial Pacific (Nino4 region). These regions are overlaid on the top-left SST map. The red circle on the scatter plot shows the statistical model prediction for the MAM 2021 standardized precipitation (SPI) value. The red line shows the 80% confidence interval. Bold lines demarcate the below-normal rainfall category based on a 1981-2010 baseline (=below -0.5 Z). Other years with much warmer-than-average western and subtropical Pacific SST and cooler-than-average central-eastern Pacific SST are colored orange. Image from the [UCSB CHC Blog](#).

Source: UCSB Climate Hazards Center

East Africa & Yemen



Crop condition map synthesizing Maize 1 conditions as of January 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 region in **Eritrea, Ethiopia, South Sudan, and Sudan** as well as in western **Kenya**, harvesting of main season cereals finalized in January while rice crops are still developing in the **United Republic of Tanzania**. Favourable crop production resulted across **Sudan** and much of **Ethiopia** despite extreme flooding during the season and localized production shortfalls in South Somali, Afar, and Tigray regions of **Ethiopia** due to combined effects of dry conditions, desert locusts, and insecurity. Poor production resulted in **South Sudan** due to flooding, ongoing conflict, and socio-economic concerns. Across the south of the region in **Burundi, Rwanda, Uganda, north and eastern United Republic of Tanzania, and Somalia** as well as in southern **South Sudan**, harvesting of 2020 October to December (OND) *Short Rains* cereal crops finalized in January while crops are still developing in **Kenya** for harvest from February. In bimodal areas, the OND 2020 rainfall season, which is critical for crop production in southern and southeastern **Ethiopia, Kenya, and most of Somalia**, was mostly below-average. As a result, poor crop production resulted in **Kenya, parts of Somalia, South Sudan, and northern United Republic of Tanzania**. The 2021 March to May (MAM) rainfall season is also likely to result in a second consecutive season of below-average rainfall, owing to the presence of La Niña conditions (See Seasonal Forecast Alert Pg. 5 and Regional Outlook Pg. 8). Also, the desert locust outbreak continues to threaten crops in southern and southeastern **Ethiopia, northern Kenya, Somalia, and western Yemen** (See Desert Locust Alert Pg. 4).

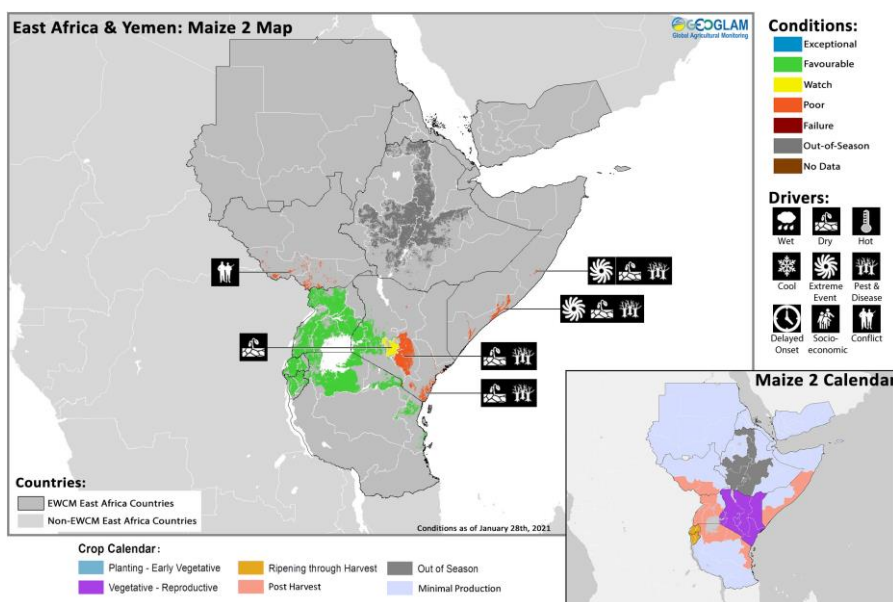
Northern East Africa & Yemen

In **Ethiopia**, harvesting of *Meher* season crops finalized in January under mostly favourable conditions with some localized production shortfalls in South Somali Region where dry conditions impacted crop development, Afar Region where desert locusts resulted in crop damage, and Tigray Region due to ongoing insecurity. In Tigray Region, conflict that erupted in early November has resulted in limited access and abandonment of fields as well as displacements within the region, across regional boundaries to Amhara and Afar Regions, and across national borders to Sudan. As a result, some farmers have missed the harvest season. Planting of *Belg* season (short rains) cereal crops will take place from mid-February to be harvested from June. Forecast below-average February to May 2021 rainfall may negatively impact *Belg* season crops (See Seasonal Forecast Alert Pg. 5 and Regional Outlook Pg. 8). In **Eritrea**, harvesting of main season sorghum and winter wheat crops finalized in January under favourable conditions. In **Sudan**, harvesting of main season millet and sorghum crops finalized in January, and final yields were favourable. Despite devastating widespread flooding in September that led to substantial crop losses in combination with COVID-19 related labour shortages, planted area of both millet and sorghum crops increased due to high market prices that promoted farmers to increase plantings, adequate availability of agricultural inputs and fuel, and increased availability of agricultural finance. Furthermore, sorghum crops benefitted from the extended rainy season to October, resulting in production above the five-year average. Also, millet crops in key producing western areas were less affected by

floods compared to eastern sorghum producing areas and were more tolerant to waterlogging than other crops, resulting in production above the five-year average. Winter wheat crops continue to develop in the north and east for harvest from March, and overall conditions are favourable. However, socio-economic issues remain a concern across the country as a rapid increase in inflation rates, protracted economic crisis exacerbated by COVID-19 related restrictions, and fuel shortages continue to impact farmers and increase prices of agricultural inputs, further inflating production and transportation costs. In **South Sudan**, harvesting of main season cereals and second season maize and sorghum crops finalized in January. Despite heavy rains and seasonal flooding since July of last year as well as pockets of ongoing conflict and socio-economic challenges, aggregate cereal production increased for a second consecutive year due to improved security that allowed for an expansion of planted area. While the 2020 cereal production is above the five-year average, it remains well below pre-conflict levels of production.

Southern East Africa

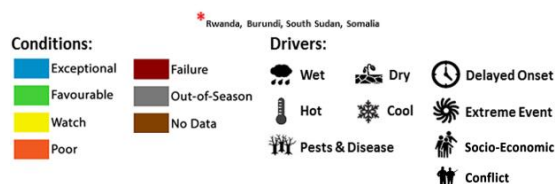
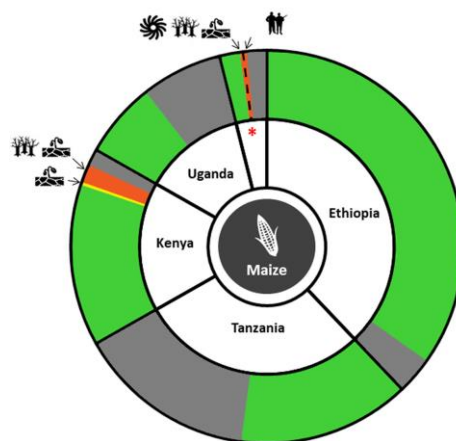
In **Somalia**, harvesting of *Deyr* season maize and sorghum crops finalized in January. While overall cereal production was near-average due to good *Deyr* 2020 rains in the main producing sorghum regions of Bay and Bakool as well as the main producing maize region of Lower Shabelle, poor production resulted in several southeast, central, and northwestern areas due to erratic rainfall, damage from Tropical Storm Gati, and desert locust



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

Gu season maize and sorghum crops will begin in March. In **Uganda**, harvesting of second season maize crops finalized in January under favourable conditions. While rainfall was below-average in north and eastern regions in December 2020, prior October and November rainfall was sufficient to support crop development. Land preparation and planting of main season crops will begin in March. Across the main producing west in **Kenya**, Rift Valley harvesting of *Long Rains* maize and rice crops finalized in January under favourable conditions, and farmers are preparing fields for the upcoming season. There is concern for *Short Rains* maize crops for harvest from February due to below-average and erratic rains in several areas and desert locust presence (See Desert Locust Alert Pg. 4). The October to December rainfall season has been erratic and below-average, lasting for up to a month and impacting crops across much of the east, coast, and central areas. This has resulted in planting delays and moisture stress in marginal agricultural areas and is expected to result in harvests approximately 30 percent below-average. Rainfall in early January could potentially improve soil moisture and vegetation conditions in some areas (See Regional Outlook Pg. 8). However, for the March-April-May season, there are concerns for below-average rainfall in eastern Kenya (See Seasonal Forecast Alert Pg. 5). In **Burundi**, harvesting of *Season A* maize crops finalized in January under favourable conditions due to adequate rainfall, and planting of *Season B* maize will begin in March. In **Rwanda**, harvesting of *Season A* maize crops finalized in January under favourable conditions, and planting of *Season B* maize crops will begin in February. In northern bimodal areas of the **United Republic of Tanzania**, harvesting of *Vuli* season (short rains)

The Crop Monitor for Early Warning is a part of GEOGLAM, a GEO global initiative. www.cropmonitor.org



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

impacts. In October, key producing southern cropping areas were affected by a late-onset and poor performance of *Deyr* rains while central regions experienced average to above-average rains. Then from mid-October to November, intermittent heavy *Deyr* seasonal rainfall benefitted crop conditions but resulted in widespread flooding and crop losses in south and central regions along the Juba and Shabelle rivers as well as rainfed areas of Shabelle. However, cumulative rainfall in parts of the south remained below-average. Also, in late November, heavy rains and strong winds from Tropical Cyclone Gati affected northern regions, bringing up to eight inches alone over two days in areas that typically receive four inches of rain per year. In addition, desert locust infestations that were previously confined to north and central pastoral regions expanded to key cropping areas in the south and resulted in damages to crops in south and central regions of Hiiraan, Middle Shabelle, Galgaduud, Mudug, Bay, and Gedo. Land preparation and planting of

maize crops finalized in January under generally favourable conditions except in localized parts of the northeastern regions bordering Kenya where dry conditions impacted final production. Planting and development of *Msimu* (long rains) cereals continued under favourable conditions. Short term forecasts indicate a likelihood of increased rainfall for south and central areas while drier-than-average conditions will continue in the north (See Regional Outlook Pg. 8).

Regional Outlook: Above-average rainfall expected across parts of Tanzania while below-average rains are likely in parts of Kenya and Ethiopia

The October-to-December rainy season was below-average in large portions of Ethiopia, Somalia, and Kenya, and average to above-average in South Sudan, Uganda, northern Tanzania, and along the western border of Kenya. December was mainly drier-than-average in much of Kenya, southern Somalia, northern Uganda, and southern Ethiopia. Since late December, rainfall has been moderately below-average in southwestern Ethiopia and in parts of western, central, and southern Kenya. There were some atypical rain events in parts of eastern Kenya in late December and in parts of southern Kenya in early January. Tanzania and southern Uganda received average to above-average rainfall, aside from deficit areas in the south and in parts of Arusha.

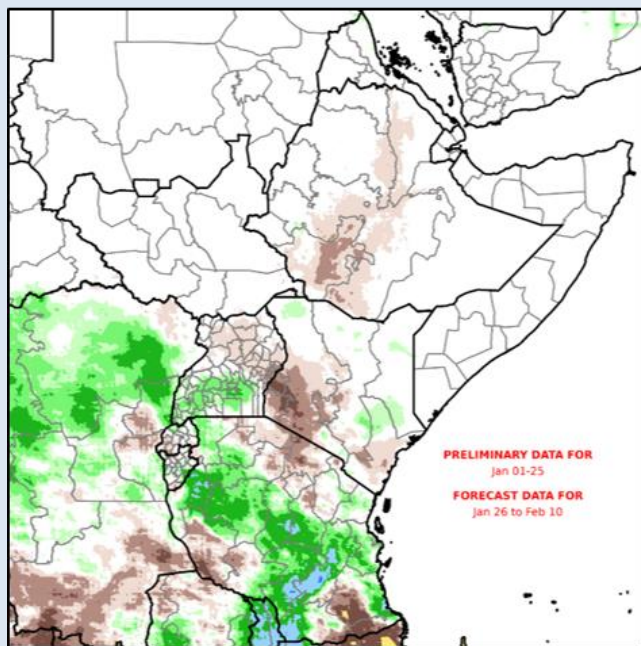
According to the two-week GEFS forecast, rainfall is expected across southern parts of the region, primarily in Tanzania and potentially also in western and southern Kenya. Drier-than-average conditions are forecast for Ethiopia. Figure 1 shows an extended outlook of the recent rainfall (Left) and the seasonal rainfall (Right), based on a January 26th forecast. The longer range SubX forecast, for late January to late February, indicates overall average rain totals in most of the region and below-average amounts near the Kenya-Tanzania border.

In the eastern and northern Horn hotter-than-average temperatures were observed in November and December, and in January in some areas. Models are forecasting average to above-average daytime temperatures during the next 30-days in these areas and increased chances for above-normal temperatures during February-to-April. In the worst affected areas, there is increased likelihood for rapid deterioration of rangeland conditions (pasture and surface water) in coming months.

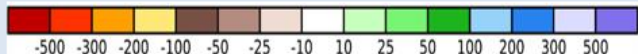
For the 2021 March-to-May rainfall season, there are concerns for below-average rainfall in eastern East Africa, associated with ocean-atmosphere conditions that are forecast to persist during the coming months. Many of these areas of concern received below-average rainfall during the October-to-December season (See Seasonal Forecast Alert Pg. 5).

Rainfall Outlook Anomaly

December 26 2020 – February 10 2021

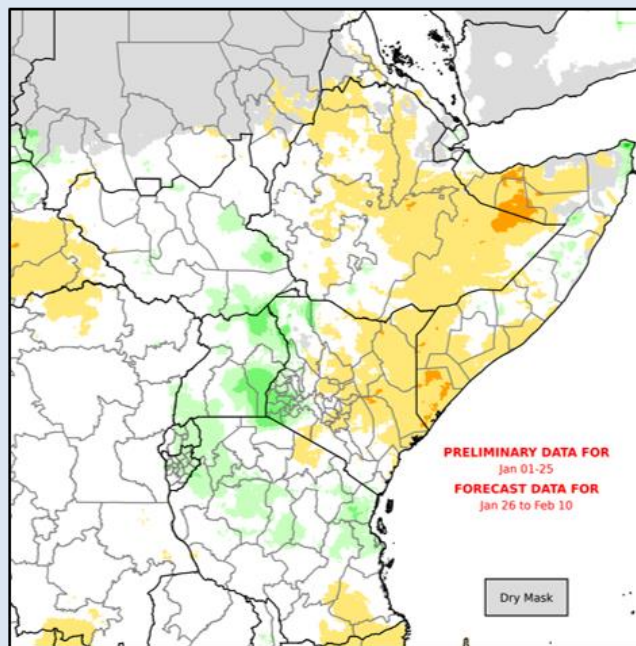


Rainfall anomaly (mm)



Season Outlook Rainfall Anomaly

October 01 2020 – February 10 2021



Rainfall anomaly as a % of the historical average

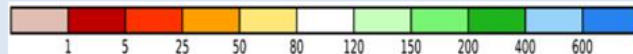
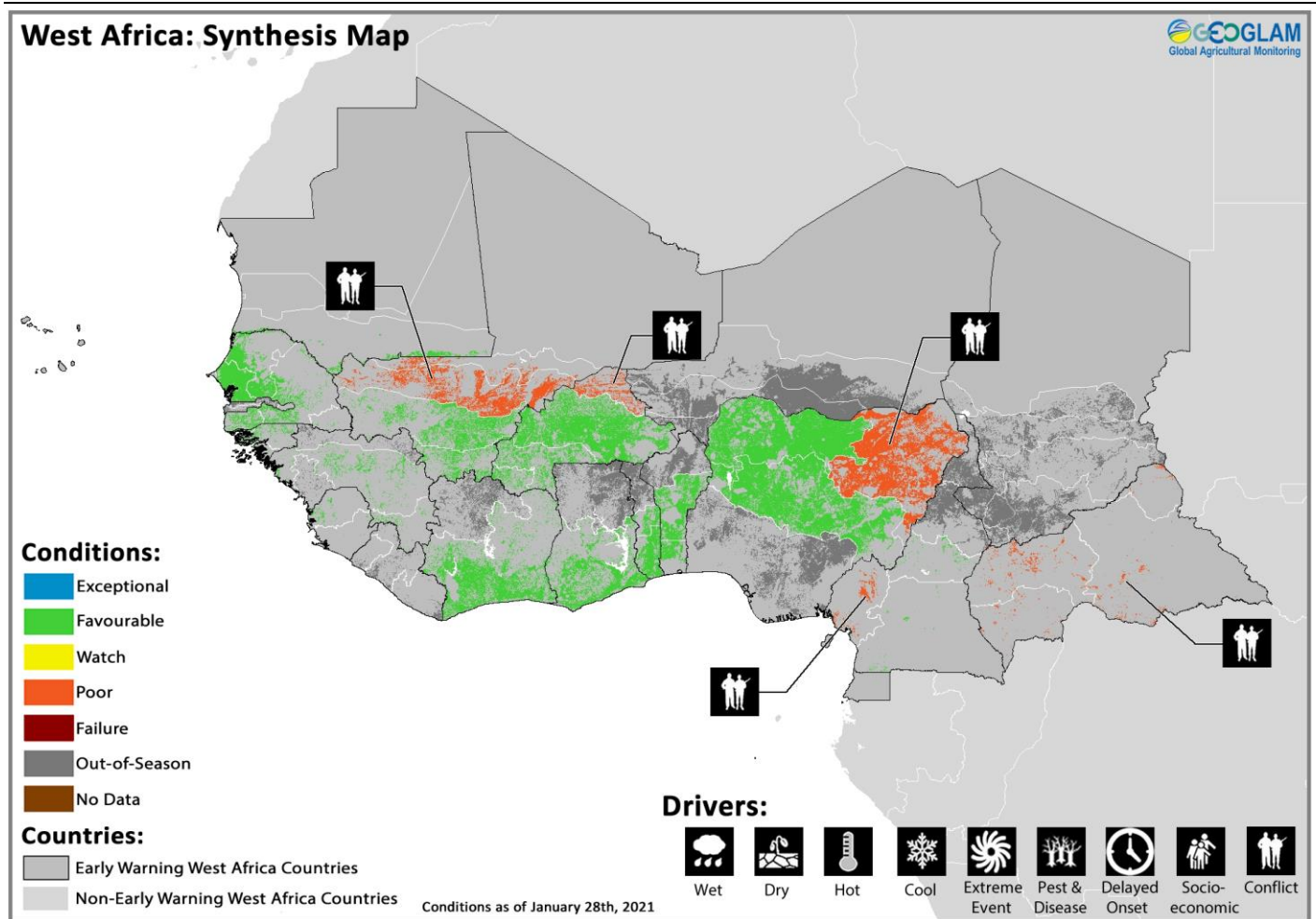


Figure 1. Estimated and forecasted rainfall for December 26th, 2020, to February 10th, 2021, and October 1st, 2020, to February 10th, 2021. Both maps are UCSB Climate Hazards Center Early Estimates, which compares 2020/21 rainfall amounts to the 1981-2019 CHIRPS average. The map on the left shows the difference from average for December 26th to February 10th if the 15-day unbiased GEFS forecast from January 26th materializes. The map on the right shows the percent-of-average rainfall for October 1st, 2020 to February 10th, 2021 if the 15-day unbiased GEFS forecast from January 26th materializes.

Source: UCSB Climate Hazards Center.

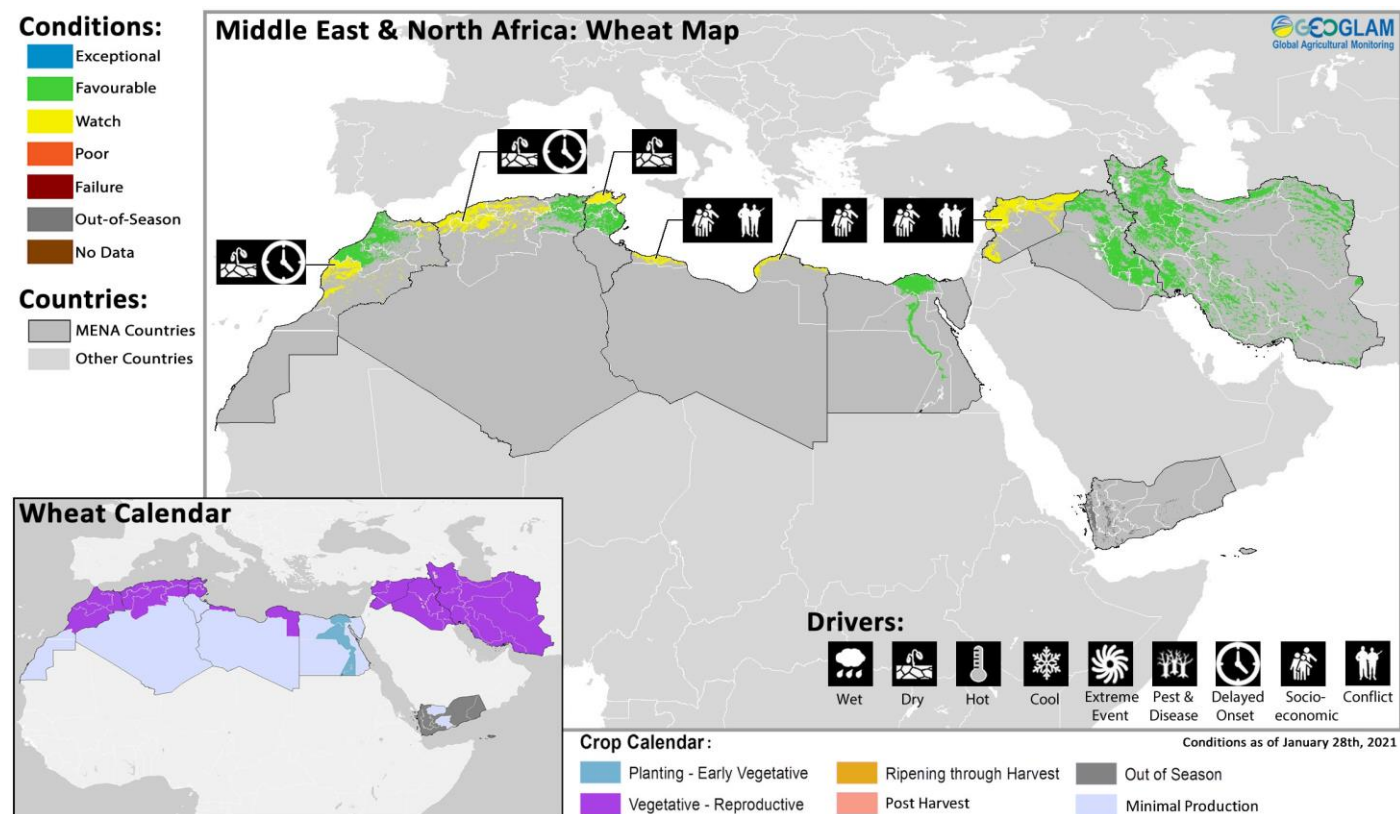
West Africa



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

In West Africa, harvesting of main season cereals finalized in **Cape Verde**, southern **Cameroon**, the **Central African Republic**, **Senegal**, southern **Mauritania**, southern **Mali**, **Burkina Faso**, **Guinea-Bissau**, **Guinea**, and **Sierra Leone**. In the southern part of the subregion, harvesting of second season cereals finalized in southern **Cote d'Ivoire**, southern **Ghana**, southern **Togo**, southern **Benin**, and northern **Nigeria** while in the northern part, second season rice continues to develop in southern **Mauritania** and southern **Mali** to be harvested from mid-February. Overall conditions are favourable except in **Cape Verde** due to dry conditions and delayed rainfall onset as well as in southwestern **Cameroon**, the **Central African Republic**, northeastern **Burkina Faso**, northeast **Nigeria**, and north-central **Mali** due to ongoing conflict impacting agricultural practices. In the **Central African Republic**, increased violence related to the December 27th, 2020 elections triggered new population displacements, particularly in the northwest and centre. About 58,000 people are estimated to be internally displaced as a result of election-related insecurity. In **Nigeria**, an upsurge in violence between armed groups and communal conflicts has driven new displacements in northeast, northwest, and northcentral regions. As a result, many households have lost their livelihoods and are unable to carry out agricultural activities. In Timbuktu region of **Mali**, the impacts of the security and socio-political crisis in combination with impacts from the COVID-19 pandemic have increased production costs for irrigated crops. Furthermore, the embankment of the Daye plain broke in early December, exacerbating previous river flooding. The floods inundated the rice-growing plains as well as irrigated village and market gardening perimeters and resulted in crop losses.

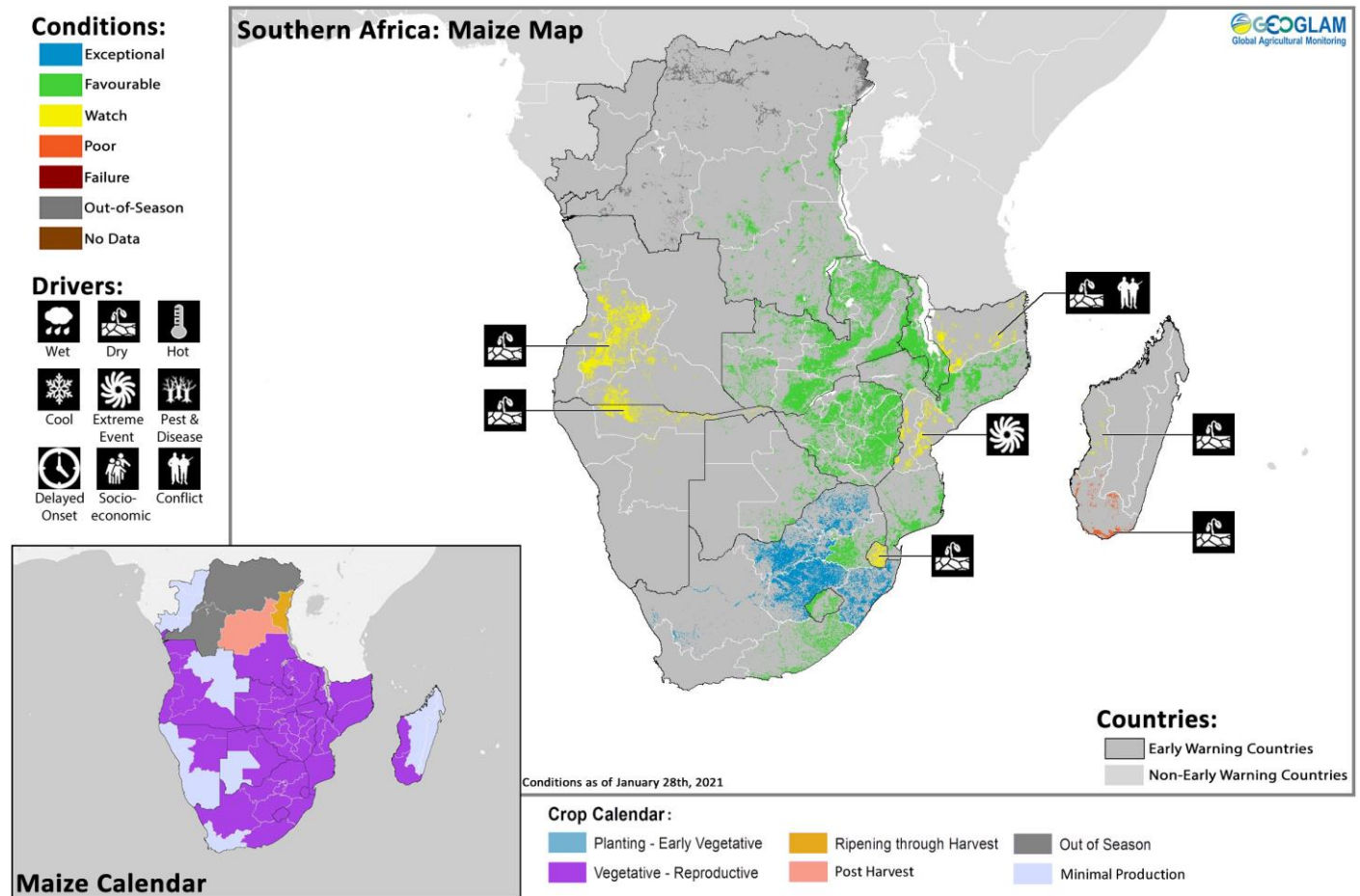
Middle East & North Africa



Crop condition map synthesizing information as of January 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.**

Throughout the Middle East and North Africa, wheat crops are in vegetative to reproductive stage for harvest from May onwards. There is concern for crop conditions in central **Algeria**, western **Morocco**, and northern **Tunisia** where a delayed seasonal rainfall onset and dry conditions continue to impact crop development. The two-week forecast from January 26th indicates drier-than-average conditions in and near some of the recent deficit areas. However, the 30-day SubX forecasts indicate generally average rainfall for the next 30 days. In **Iraq** and **Iran**, abundant rainfall in mid-January decreased moisture deficits, albeit not uniformly across all cropping areas. As of the second dekad of January, below-average biomass likely as a result of insufficient rainfall prevailed in Golestan District in northeastern **Iran** as well as Ninewa Governorate in northern **Iraq**. In Al Hasakah Governorate of **Syria**, the primary wheat-producing region located in the northeast, poor precipitation and dry conditions prevailed until early January, but good rainfall in the second dekad of January and above-average temperatures are expected to boost winter cereal growth. In addition, ongoing conflict and socio-economic concerns including currency depreciation and high transportation costs as a result of fuel shortages continue to impact agricultural activities. In **Libya**, ongoing conflict continues to limit farmer's ability to purchase agricultural inputs, access fields, and attend to their fields. In **Egypt**, harvesting of *Nili* season (Nile Flood) rice crops finalized in January under favourable conditions.

Southern Africa

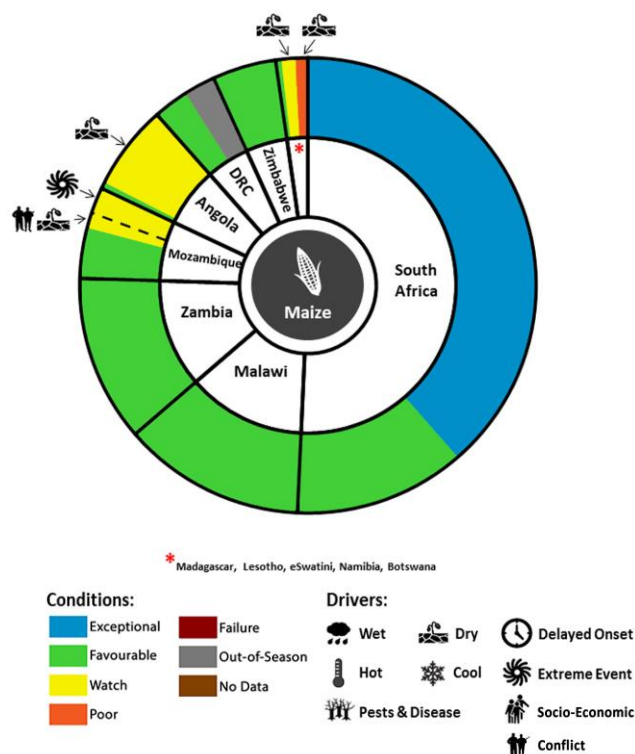


Crop condition map synthesizing information as of January 28th. Crop conditions over the main growing areas are based on a combination of inputs including remotely sensed data, ground observations, field reports, national, and regional experts. **Crops that are in other than favourable conditions are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

In Southern Africa, main season cereals are in vegetative to reproductive stage throughout the subregion to be harvested from April. The southern half of the subregion received heavy rainfall in December and early January that benefitted crop development while also leading to floods and waterlogging in some areas. Conversely, below-average rainfall continued in some west, east, and far southern parts of the region, causing rainfall deficits in some areas (See Regional Outlook Pg. 13). There is developing concern in west and southwestern **Angola**, **eSwatini**, and northern **Namibia** and significant concern in southern **Madagascar** as below-average rainfall and above-average temperatures are impacting crop development. Also, on January 20th, Tropical Storm Eloise made landfall in northeastern **Madagascar**, bringing heavy rains and flooding before crossing the Mozambique Channel where it strengthened to a tropical cyclone and made landfall in central **Mozambique** on January 23rd, raising concern in central areas still recovering from Tropical Cyclone Idai in March 2019. Eloise then weakened into an overland depression on January 24th and moved towards **South Africa**, bringing heavy rainfall to northern **South Africa**, southeastern **Zimbabwe**, and southern **Botswana**. The rains in **South Africa** also have the potential to increase the water levels of rivers that flow into **Mozambique**, increasing the risk of further flooding in cyclone-affected areas of **Mozambique**. Seasonal cyclone forecasts indicate a higher than normal probability of increased cyclone activity between February and April 2021 in the southwest Indian Ocean which may further affect parts of the subregion (See Regional Outlook Pg. 13). African Migratory Locusts (AMLs) as well as brown and red locusts were reported over **Angola**, **Namibia**, **Zambia**, **Botswana**, **Zimbabwe**, and **South Africa** and are likely to persist as wet conditions continue. Though the locust outbreak is currently not impacting cropped areas significantly, except in **Namibia** where 50,000 hectares of cropland were affected, it poses a risk to 2020/2021 summer cropping harvest and winter irrigated crops if not effectively controlled.

In the **Democratic Republic of Congo**, harvesting of main season maize crops finalized in central areas while planting of second season maize crops began in central and southeastern areas, and overall conditions are favourable. In the south and western coastal areas of **Angola**, abnormal dry conditions and above-average temperatures in January have impacted vegetation conditions. Conversely, in the minor producing north and eastern areas, crop conditions are favourable despite sporadic rainfall in the north. Below-average rainfall is forecast to continue in the major producing central-western areas through late February (See Regional Outlook Pg. 13). In **Zambia**, overall conditions are favourable for main season maize crops as good rainfall over most areas benefitted crop development, though heavy rains in early January caused localized flooding and destroyed maize crops in Gwembe District in

Southern Province. Additionally, the AML outbreak is under control and has not impacted cropped areas significantly. In **Mozambique**, crop conditions are mixed due to localized dry conditions and conflict in the north as well as impacts from Tropical Cyclones Chalane and Eloise, which affected the same areas that were still under recovery from Tropical Cyclone Idai in 2019. On December 30th, 2020, Tropical Storm Chalane made landfall and affected the central provinces of Sofala and Manica with strong winds and heavy rains that contributed to rising water levels of several rivers and basins. However, the storm only caused minimal damage to the agricultural sector. On January 23rd, Tropical Cyclone Eloise made landfall as a category two storm again in Sofala Province, and the additional rains are likely to have overflowed the Limpopo river basin, increasing the risk of flooding in northern Gaza Province and Limpopo valley. As of January 29th, 314,000 people have been affected, and in excess of 100,000 hectares of crops have been flooded. In **Namibia**, there is concern for main season maize and millet crops due to below-average precipitation and the presence of AMLs, which have affected 50,000 hectares of cropland. In **Botswana**, current conditions for crop development are favourable. Widespread rainfall was received following Tropical Cyclone Eloise, which is expected to benefit crops in most areas but may have caused localized crop damage in Southern-Central District (See Regional Outlook Pg. 13). While current conditions are favourable for crop development in **Zimbabwe**, several southeast and central areas were affected by heavy rains and flooding in early January, including Chiredzi, Gokwe, Buhera, and Zaka. In late January, additional heavy rains from Tropical Cyclone Eloise resulted in flooding, mudslides, and destruction of infrastructure in the east and southeastern provinces of Manicaland, Mashonaland East and Central, Matabeleland South, and Masvingo. In **Madagascar**, there is concern for main season rice and maize crops due to below-average precipitation and above-average temperatures over south and central areas. In the south, crops are unlikely to recover as current severe drought is compounding the impacts of previous successive droughts in the last few seasons. Abnormal dryness also impacted eastern coastal areas in mid-January. Below-average rainfall is forecast to continue through late February in south and eastern areas and may worsen rainfall deficits (See Regional Outlook Pg. 13). Conversely, on January 20th, Tropical Storm Eloise brought heavy rains, strong winds, and flooding as it passed through northeastern districts of Antalaha, Maroantsetra, Vavatenina, and Toamasina before crossing over northern areas and re-entering the Mozambique Channel. In **eSwatini**, late-onset rains and dry conditions resulted in seasonal planting delays and a need for replanting in some areas due to early crop wilting. Rainfall improved from December, and heavy rainfall in January from Tropical Cyclone Eloise has affected several areas, and most rivers in the country are flooded. In **Lesotho**, weather conditions since the start of the rainy season in October have been beneficial for plantings and crop development with slightly above-average cumulative rainfall. In **South Africa**, main season maize crops are in vegetative to reproductive stage under favourable conditions due to widespread above-normal rainfall over most of the summer grain-producing region. Favourable rainfall prospects and near-normal temperatures since the start of planting in October and November, in combination with remunerative crop prices, encouraged farmers to expand the planted area for the 2021 maize crop, up six percent year on year. However, heavy rainfall from Tropical Cyclone Eloise in late January added to the already saturated grounds and caused flooding in Lowveld areas of Limpopo and Mpumalanga provinces.



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

Regional Outlook: Above-average February rainfall is forecast across the central and southeastern areas while below-average rainfall is expected over rainfall deficit areas

Since December 1st, rainfall has been above-average across central parts of Southern Africa, including Zimbabwe, Botswana, southern Zambia, and from Namibia to central and southern Mozambique, including, central and northeastern South Africa (Figure 1-left). Rainfall was below-average in northeastern Mozambique, southern and eastern Madagascar, western Angola, and marginal rain areas of southwestern South Africa.

December-to-January rainfall deficits are severe in southern Madagascar, northeastern Mozambique, and western Angola. Some areas received [the lowest amounts of the 40-year CHIRPS record](#), according to observed and preliminary data for December 1st to January 25th. Above-average rainfall has been exceptional in some of the south-central region areas, in part due to Tropical Storm Chalane, which passed over northern Madagascar, south-central Mozambique, and Zimbabwe in late December followed by Tropical Cyclone Eloise in the third week of January. Rainfall amounts in parts of southern Zimbabwe, western Mozambique, Botswana, Namibia, and north-central South Africa presently rank among the wettest on record. If the two-week forecast from January 26th materializes, more central region areas [will exhibit near-record level rainfall](#) for December to early February.

Above-average rainfall is forecast in central and southeastern areas for the late-January to late-February period. Below-average rainfall is forecast in central-western Angola and in southern and eastern Madagascar. Similar forecasts from five SubX models indicate high confidence in this outlook for the region overall, while outcomes are likely to vary across specific locations. Figure 1-right shows the SubX 30-day model mean forecast.

Following observed rainfall from December to late January, if the SubX 30-day forecast materializes, December 2020 to February 2021 rainfall will follow a similar regional pattern to that which was forecast by the NMME in September 2020. That forecast was shown in the Crop Monitor for Early Warning [October 2020 Regional Outlook](#). Based on January 2021 initial conditions, the NMME forecast for February-to-April rainfall shows low model agreement in central and southeastern areas and increased chances of above normal rainfall in Namibia, central-western South Africa, and parts of central Mozambique.

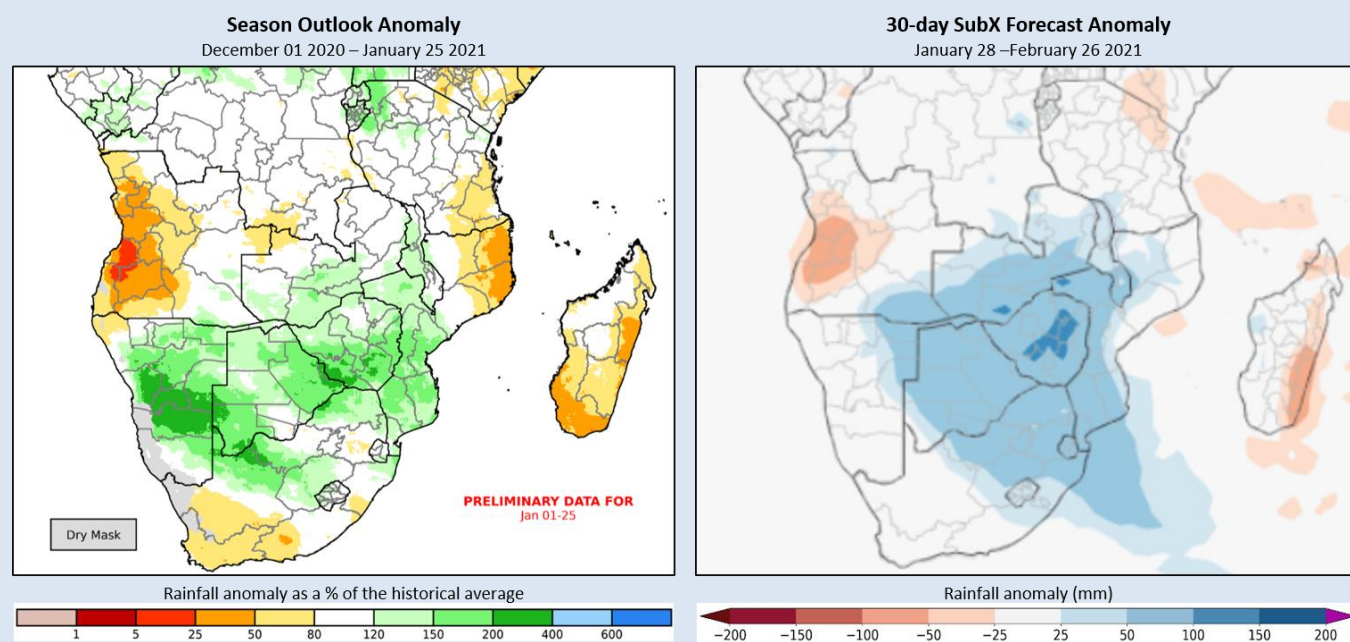
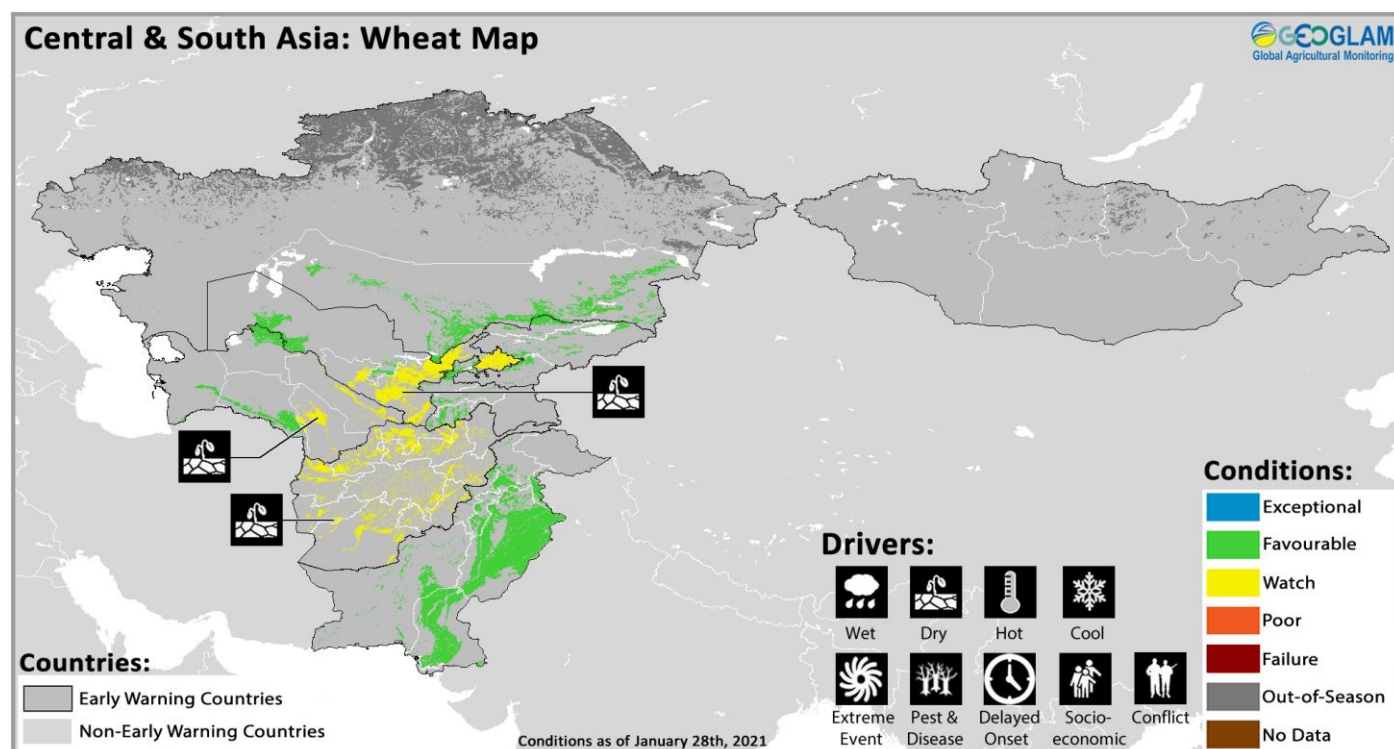


Figure 1. Estimated rainfall since December 1st, and a 30-day rainfall forecast anomaly from January 28th. The left panel is a UCSB Climate Hazards Center Early Estimate, which compares 2020/21 rainfall amounts to the 1981-2019 CHIRPS average for the same period. The right panel is a 30-day forecast from January 28th. The image shows the average of five Subseasonal Experiment (*SubX*) model forecasts starting from that day; model initial conditions were within several days. The anomaly is based on the 1999 to 2016 model average. Skill assessments of *SubX* can be accessed [here](#). Source: UCSB Climate Hazards Center.

Central & South Asia



Crop condition map synthesizing information as of January 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, winter wheat crops are in dormancy stage across **Afghanistan, Kazakhstan, Kyrgyzstan, Pakistan, Tajikistan, Turkmenistan, and Uzbekistan**, and overall conditions are favourable except in **Afghanistan** and southern areas of **Turkmenistan** and **Uzbekistan** where below-average precipitation has been received and is forecast to continue into February (See Regional Outlook Pg. 15). In **Turkmenistan** and **Uzbekistan**, in addition to the below-average precipitation, colder than average temperatures until the first dekad of January raised concerns; however, temperatures increased in the second and third dekad of the month. In **Kazakhstan**, planting of the minor winter wheat crop, accounting for 3.5 percent of total annual wheat production, finalized in November 2020 and will be harvested between June and August 2021. In mid-January, the main producing regions in the south and southeast experienced above-average temperatures, and the southeast experienced above-normal precipitation which benefitted soil moisture levels. However, the warm temperatures in the Almaty and Zhambyl regions in the southeast has the potential to lead to overgrowth of winter wheat in uneven snow cover and result in crop damage during strong winds. Also, lack of snow in the fields of Turkestan region in the south may cause winterkill in the case of severe frosts. Elsewhere in **Kazakhstan** as well as **Tajikistan** and **Kyrgyzstan**, snow cover is sufficient and has been present since late November 2020. In **Afghanistan**, below-average precipitation has prevailed throughout much of the country, and snow water volumes that were above-average in December 2020 are now below-normal. While winter-planted wheat crops are in dormancy, recent below-average precipitation, which is also forecast to continue in February (See Regional Outlook Pg. 15), combined with above-average temperatures may result in below-average snowmelt runoff and moisture stress for winter wheat crops. In addition, this may also limit seasonal water availability for spring wheat to be planted from February. In **Pakistan**, harvesting of main season rice crops finalized in December under favourable conditions, and production is estimated at 12.3 million tonnes, reflecting the high level of plantings in response to good prices and strong demand as well as good rainfall throughout the season. Favourable weather conditions since October 2020 and sufficient irrigation water supplies benefitted land preparation and planting activities of *Rabi* wheat crops, of which 90 percent are irrigated. Planted area is forecast at an above-average level of 9.2 million tonnes due in part to record domestic prices and Government programmes supporting wheat production via price support and subsidies for fertilizers and pesticides.

Regional Outlook: Below-average rainfall expected across parts of the region for the February to April 2021 period

October to January precipitation was mainly average to below-average across the region, with above-average precipitation in parts of northern Afghanistan. Average to below-average conditions are expected for late January to early February, based on the January 26th two-week forecast. Figure 1-left shows the extended outlook for October 1st to February 10th precipitation in terms of the difference from average for that period. The outlook shows potential for season-to-date deficits of 50 mm or higher, or less than 80% of average, in northeastern Iran, southern Afghanistan, northern Pakistan, and other areas.

Over the next 30 days, SubX models forecast average to below-average precipitation. The SubX models, overall, forecast below-average precipitation in central and eastern Afghanistan, northern Pakistan, southern Tajikistan, and northwestern India (See Global Climate Outlook Pg. 3).

Seasonal forecasts, from the NMME in early January, retain a pessimistic outlook with increased chances of below-normal February-to-April precipitation (Figure 1-right). The models also predict above-normal temperatures across the region. If these forecasts materialize, such a combination could have consequences for [snowpack and water availability in winter and spring cereals](#) as well as flooding risks.

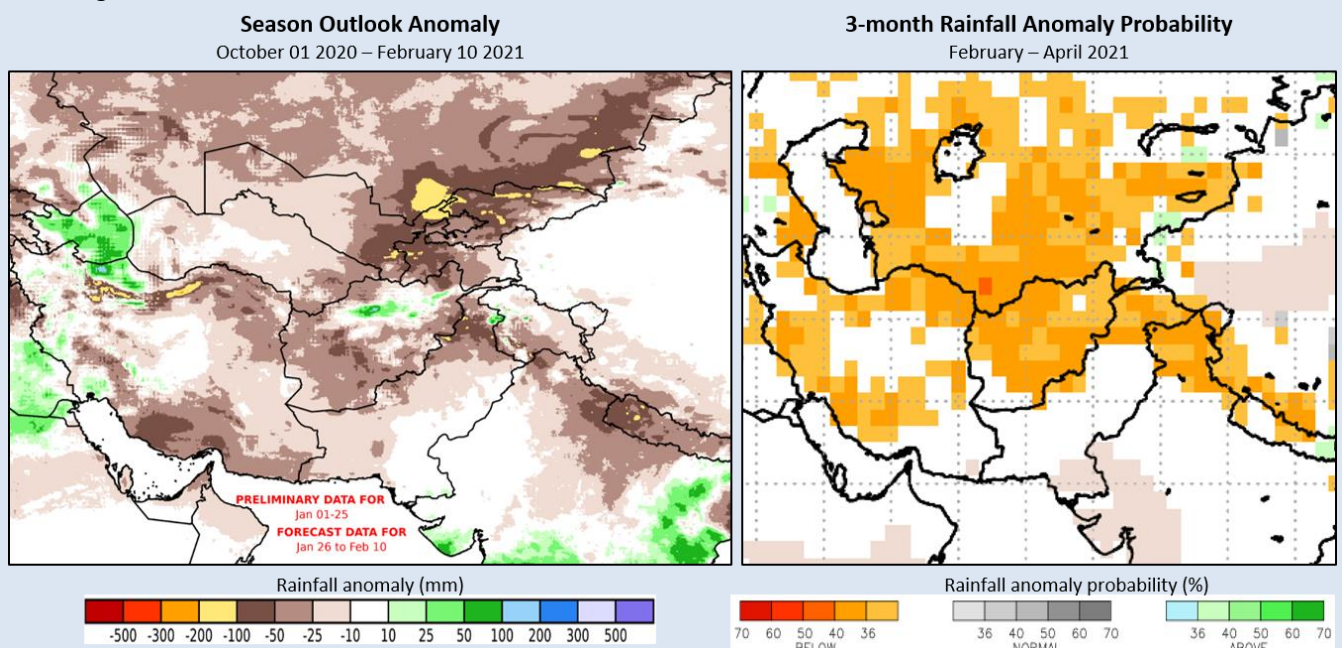
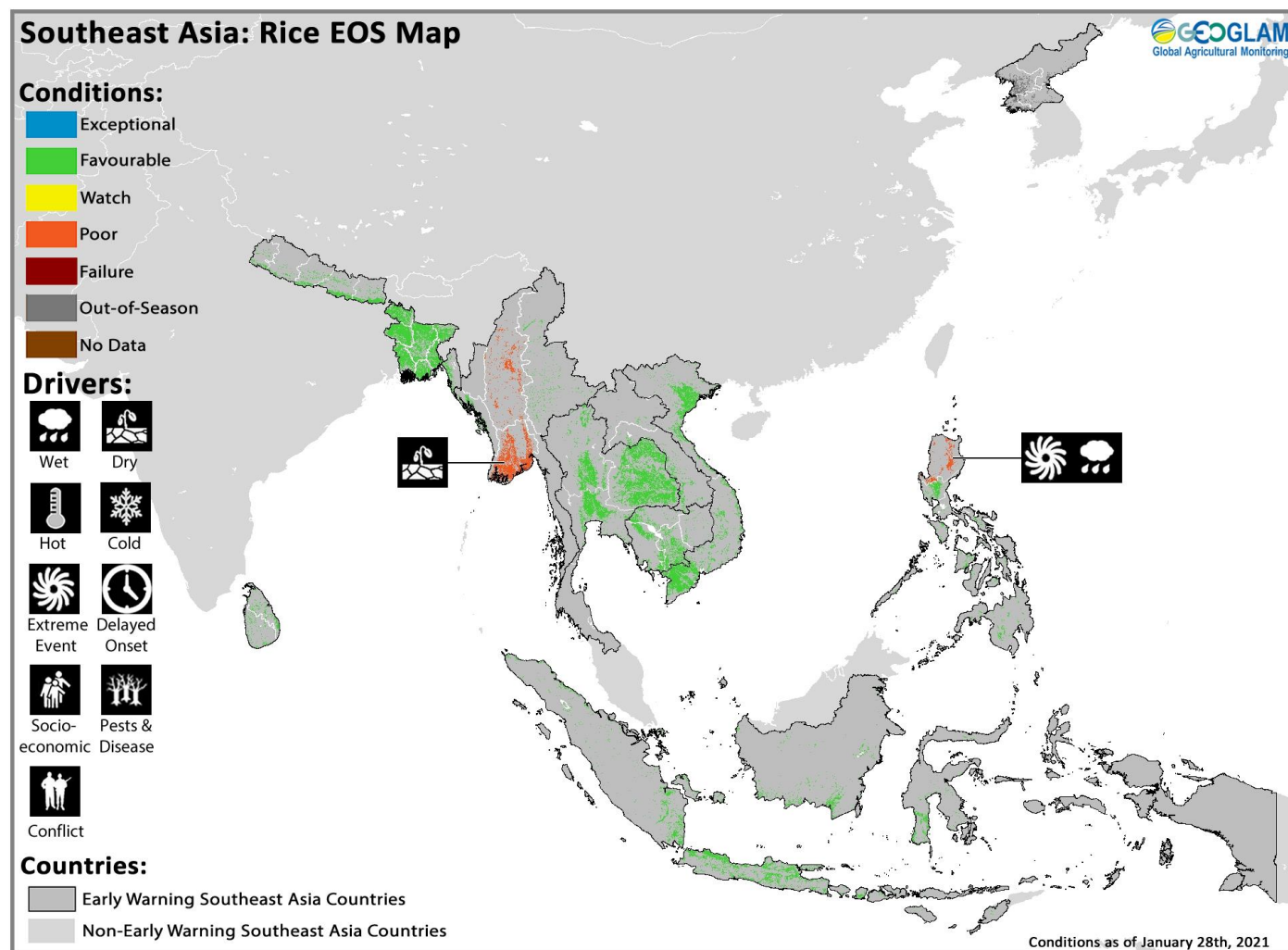


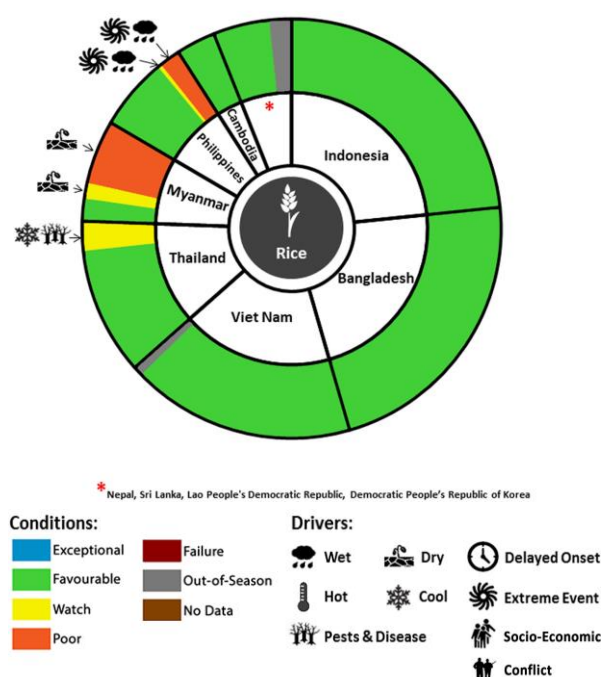
Figure 1. Estimated and forecasted rainfall since October 1st, and a 3-month probability forecast. The left panel is a UCSB Climate Hazards Center Early Estimate, which compares 2020/21 rainfall amounts to the 1981-2019 CHIRPS average. The map shows the difference from average for October 1st to February 10th, if the 15-day unbiased GEFS forecast from January 26th materializes. On the right is the 3-month NMME experimental probabilistic forecast for February to April 2021, based on January 2021 initial conditions. The forecast probability is calculated as the percentage of all 79 NMME ensemble members that fall in a given tercile (above/below/near normal). White color indicates there is no dominant category across the model forecasts. NMME image from https://www.cpc.ncep.noaa.gov/products/international/nmme/nmme_seasonal.shtml
Source: UCSB Climate Hazards Center.

Southeast Asia



Crop condition map synthesizing rice conditions as of January 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 wet-season rice finalized in December, and overall favourable production resulted due to sufficient rainfall during the growing season. However, crop damages from southwest monsoon and typhoon related flooding in the Delta region of **Myanmar**, Mekong basin of **Cambodia**, and Northern Luzon part of **Philippines** is expected to decrease production in affected areas. Planting of dry-season rice commenced in January under favourable conditions, and planted area is expected to decrease due to limited irrigation water availability in some countries. In **Indonesia**, conditions are favourable as the harvesting of dry-season rice is wrapping up with a large increase in harvested area of 4.9 million hectares, a 13.1 percent increase compared to last year. Conditions are also favourable for wet-season rice as sowing enters the fourth month, and the harvesting of earlier sown crops begins. Total sown area of wet-season rice significantly increased this year compared to last year due to heavy rainfall as the peak of La Niña between December 2020 and January 2021 coincided with the peak of the rainy season that typically occurs between January and February. Despite reports of flooding and landslides, there has been no significant damage to rice crops, and growing conditions are favourable due to sufficient irrigation water supply, particularly in northern Java Island. In the **Philippines**, wet-season rice harvesting is wrapping up under favourable conditions except for Northern and Southern Luzon, which were impacted by flooding from three typhoons. Total production reached 7.39 million metric tonnes with a yield of 4.24 metric tonnes. Dry-season rice is in



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

tillering to young panicle forming stage under generally favourable conditions with some areas of concern remaining in North Luzon Agribusiness due to earlier lodging and flooding resulting from Tropical Storm Krovanh in mid-December and a tropical depression in January (See Regional Outlook Pg. 18). In **Thailand**, wet-season rice harvest is wrapping up under favourable conditions despite some damage in the northeast due to persistent rainfall and flooding in October. Dry-season rice is in tillering stage under mixed conditions as a result of recent prolonged cold weather from December 2020 to January 2021 and a lack of irrigation water. Low irrigation water availability is also expected to reduce the total sown area and yields this year compared to last year as dry-season rice crops are mostly irrigated. In **Viet Nam**, harvest is wrapping up for the autumn-winter (wet-season) crop in the south under favourable conditions, and yields are estimated at 5.62 tonnes per hectare, a 2.2 percent increase compared to last year due to good weather conditions during the growing season. Conditions are also favourable for the sowing of the winter-spring (dry-season) crop in the south, although progress is slower than last year due to the delay in agricultural work and shortage of irrigation water. In **Laos**, sowing of dry-season rice is underway under favourable conditions and with sufficient irrigation water supply. Planted area has reached 47,000 hectares, 52 percent of the national production plan. In **Myanmar**, harvesting of wet-season rice finalized in January with 12.3 million tonnes produced and a below-average yield of 3.83 tonnes per hectare. While flood damage during monsoon season did not significantly affect the paddy crop, the final average yield is low due to poor rainfall during the reproductive stages and limited irrigation water supply. Planting of dry-season rice has reached 434,000 hectares, 47.4 percent of the national plan. While current weather conditions are favourable for crop development, planted area is expected to reduce considerably compared to last year due to limited irrigation water supply in dams and reservoirs that may incentivize farmers to substitute other winter crops. In **Cambodia**, planting of dry-season rice has reached 125 percent of the national plan of 571,000 hectares due to government support of supply water for areas with limited irrigation water availability. Weather conditions are favourable for crop development, and some areas have started harvesting. In **Sri Lanka**, *Maha* season maize and rice crops are in vegetative to reproductive stage under favourable conditions to be harvested from February. For rice crops, precipitation amounts since October have been near-average over the main producing areas, benefitting planting and crop germination, particularly in the main producing North Western, North Central, Eastern, and Uva provinces. Plantings have reached 95 percent of targeted area, as of the end of December, and Government support of free irrigation water and fertilizer subsidies sustained plantings. For maize, plantings reached 85 percent of targeted area and are forecast at an above-average level, reflecting the high demand by the local feed industry. In **Bangladesh**, harvesting of *Aman* season rice crops finalized in January. While production levels are expected to decrease slightly from the previous year due to localized crop damage from heavy rains in July and August that triggered flash floods and river overflows in the north, production will be close to the five-year average. Planting of *Boro* season rice crops, accounting for 55 percent of the annual paddy output, continued in January to be harvested in mid-April. Favourable weather conditions from November 2020 and adequate irrigation water supplies from above-average June to October monsoon rains benefitted planting activities and crop germination. Planting prospects are favourable, reflecting strong market prices as well as Government support programmes. In an attempt to increase productivity of paddy, the Government encouraged hybrid rice cultivation through a series of measures including financial support and provision of hybrid seeds. In **Nepal**, harvesting of main season rice crops finalized in January under favourable conditions due to good irrigation supply from monsoon rains. Production is estimated at a near-record level of 5.6 million tonnes due to the high level of plantings and despite localized damages to standing crops in western and central areas due to floods from heavy rains in June and September. Planting of main season maize will begin in February for harvest from August.

Regional Outlook: Above-average rainfall expected for the February to April 2021 period across parts of Southeast Asia

Apart from central areas, much of the maritime South East Asia region received average or above-average rainfall between December 1st and January 25th (Figure 1-left). In the northern Philippines, rainfall totals are presently higher than 200% of average, in part due to Tropical Storm Krovanh in mid-December and a tropical depression in mid-to-late January. Totals are above 150% of average in parts of southern Vietnam, southern Thailand, northern Malaysia, and Indonesia's central-eastern Java region.

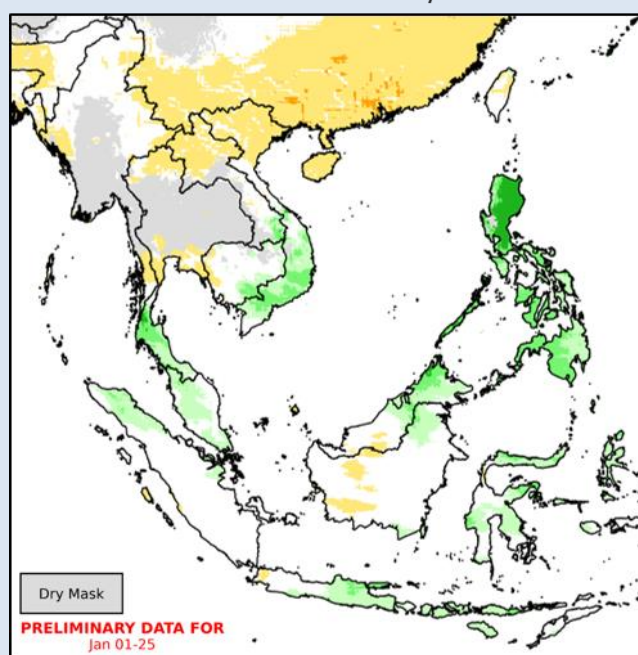
December 1st to January 25th rainfall was lower than average in Indonesia's Kalimantan and western central Sumatra regions and Malaysia's southern Borneo region. However, most of these areas received amounts that were at least 80% of average, and forecast rains may bring season-to-date totals closer to average by early February.

As of January 26th, mixed rainfall conditions are forecast across the region for the next two weeks (not shown), with potential for above-average amounts in some of the Philippines and Indonesia's eastern Java region.

For February to April, the NMME forecast indicates wetter-than-average conditions in some northern and southern areas, and average to below-average conditions in central areas, similar to recent conditions (Figure 1-right). There is a higher than 60% chance for above-normal February-to-April rainfall in the Philippines and southern Vietnam.

Season Rainfall Anomaly

December 01 2020 – January 25 2021

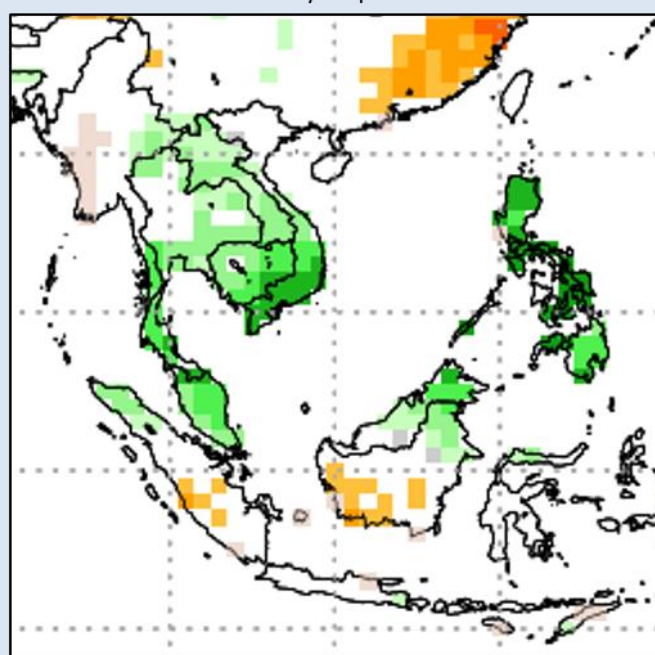


Rainfall anomaly as a % of the historical average



3-month Rainfall Anomaly Probability

February – April 2021



Rainfall anomaly probability (%)

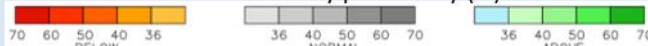
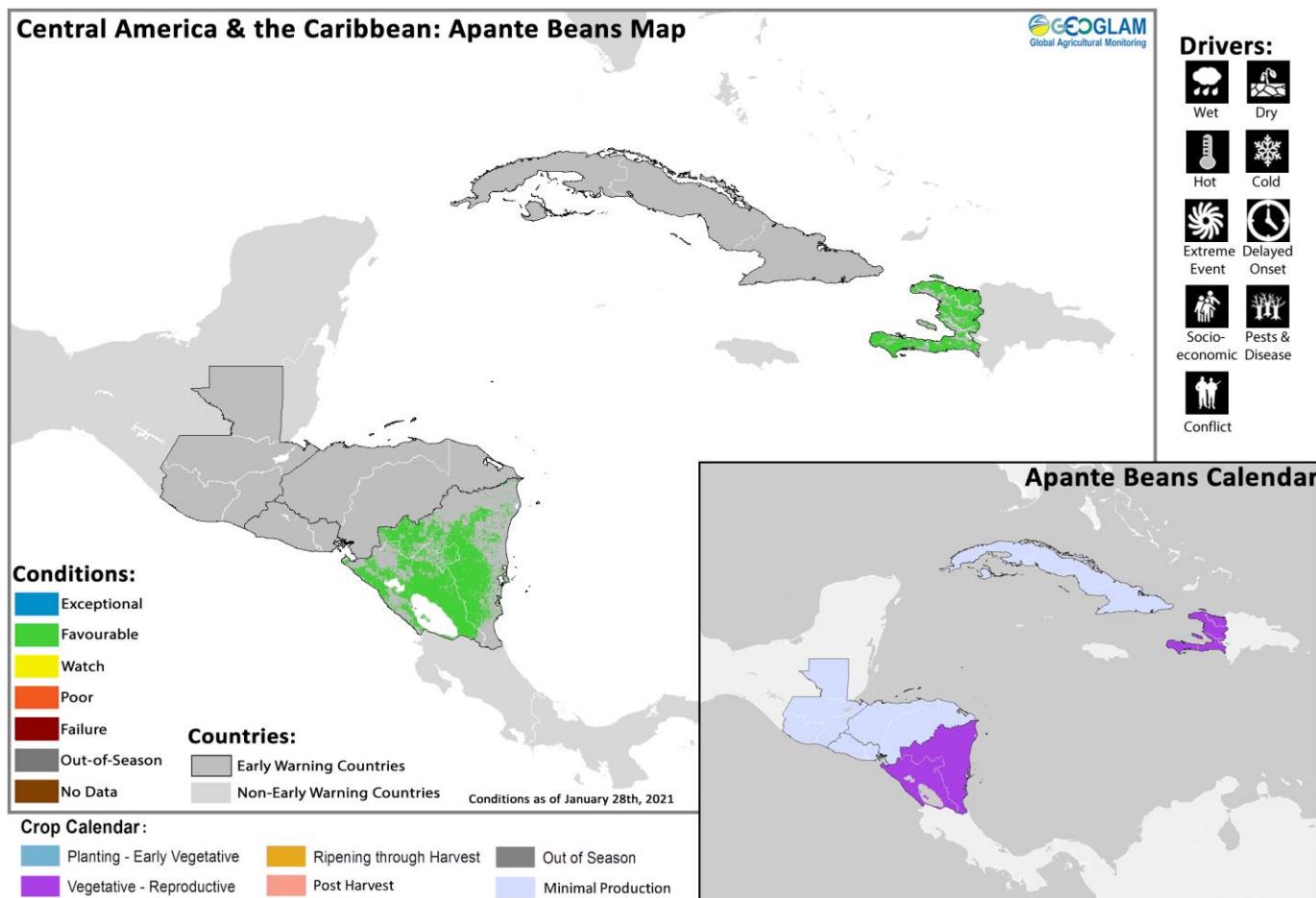


Figure 1. Estimated rainfall since December 1st, 2020, and a 3-month probability forecast. The left panel is a UCSB Climate Hazards Center Early Estimate, which compares 2020/21 rainfall amounts to the 1981-2019 CHIRPS average. The map shows the difference from average for December 1st, 2020 to January 25th, 2021. On the right is the 3-month NMME experimental probabilistic forecast for February to April 2021, based on January 2021 initial conditions. The forecast probability is calculated as the percentage of all 79 NMME ensemble members that fall in a given tercile (above/below/near normal). White color indicates that there is no dominant category across the model forecasts. NMME image from https://www.cpc.ncep.noaa.gov/products/international/nmme/nmme_seasonal.shtml

Source: UCSB Climate Hazards Center.

Central America & Caribbean



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

In Central America and the Caribbean, harvesting of *Postrera/Segunda* season maize and bean crops finalized in December in **El Salvador, Guatemala, Honduras, and Nicaragua**. Final production was average in **El Salvador**, southern **Nicaragua**, and southern **Guatemala**, but crop losses from Hurricanes Eta and Iota in November 2020 affected final yields in northern **Nicaragua**, east, central, and northern **Guatemala**, and throughout **Honduras**, mainly affecting subsistence farms. However, domestic supplies of maize are sufficient despite hurricane-related losses due to previous favourable *Primera* season production. Despite irregular rainfall distribution over Nord and Nord-Est departments of **Haiti** and northern **Nicaragua**, *Apante* season bean crops are developing under favourable conditions to be harvested in March. In **Nicaragua**, cumulative rainfall is close to average in the main cropping areas of beans, and planted area for red bean crops is likely to have expanded as farmers are trying to compensate for crop losses in the previous hurricane-affected season. In **Haiti**, second season rice crops are developing under favourable conditions as average to above-average rainfall benefitted crop development. However, planted area may have been contracted due to economic constraints and lack of agricultural inputs. In **Cuba**, harvesting of second season maize and rice crops finalized in December with reduced production due to reduced plantings and excessive rainfall in November. Planting of main season maize and rice crops is underway for harvesting from March under favourable conditions.

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

Information on crop conditions in the main production and export countries can be found in the *Crop Monitor for AMIS*, published February 4th, 2021.

Appendix

Crop Conditions:

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

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

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

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

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

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

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

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

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

Drivers:

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

Wet: Higher than average wetness.

Dry: Drier than average.

Hot: Hotter than average.

Cool: Cooler than average or risk of frost damage.

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

Delayed-Onset: Late start of the season.

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

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

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



Crop Season Nomenclature:

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

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

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

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

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

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

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

Crop Season Nomenclature:

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

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



GEOGLAM

Global Agricultural Monitoring

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Prepared by members of the GEOGLAM Community of Practice, coordinated by the University of Maryland Center for Global Agricultural Research and funded through NASA Harvest.



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

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Contributing partners



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