

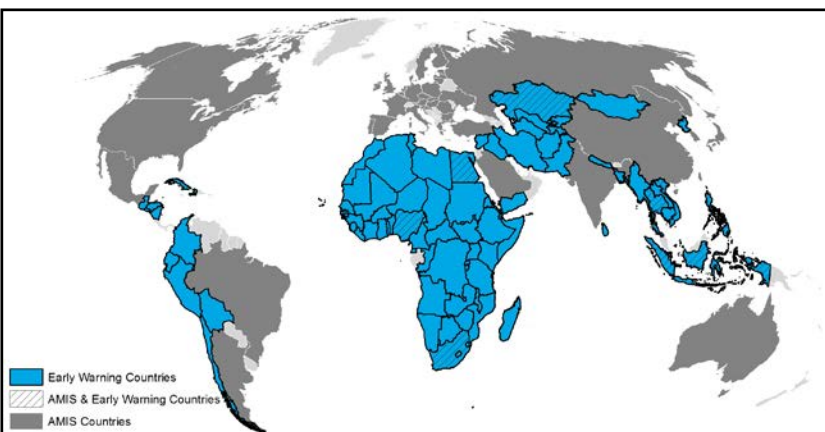


Crop Monitor

EARLY WARNING

Overview:

In **West Africa**, main season maize planting continues in the south and conditions are favourable. In northern **East Africa**, the *belg* season is underway in Ethiopia and there is concern due to dry conditions in the north. In the south of the subregion, planting continues for main season crops and conditions are favourable with timely onset of rains and abundant rainfall in April. In the **Middle East**, winter wheat is mixed due to dry conditions and ongoing conflict. In **North Africa**, winter wheat conditions have improved from early season dryness and are favourable. In **Southern Africa**, main season maize harvest will finish in May and production prospects are mixed due to permanent damage from early season dryness. In **Central and South Asia**, dry conditions and reduced snowpack continue to impact winter and spring wheat crops and is expected to impact production. In **Southeast Asia**, dry season rice harvest is in high season and conditions are favourable. In **Central America** and the **Caribbean**, land preparations for the *primera* season are underway and planting will start next month.

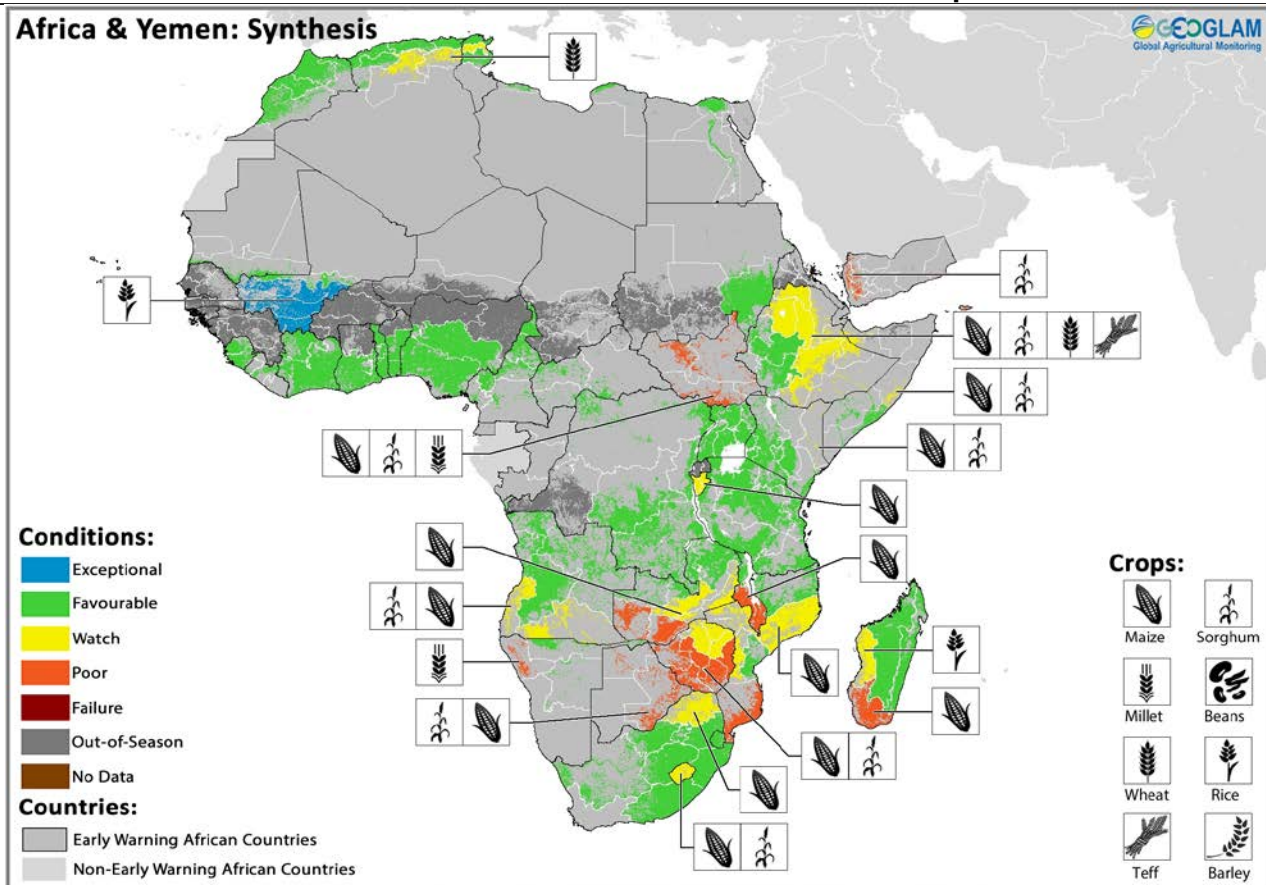


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GEOGLAM Crop Monitor for Early Warning

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: In the north of the sub region, *belg* rains in Ethiopia had a timely onset however, since March dry conditions have affected the southwest and north. Across the south of the subregion, planting continues for main season crops across Kenya, Uganda, and Tanzania and conditions are favourable with abundant early season rainfall notably over Kenya, Somalia and Uganda. In unimodal rainfall areas of central and southern Tanzania, *msimu* harvest is underway and production prospects are favourable.

WEST AFRICA: In southern West Africa, planting of main season cereals is underway and will continue through May across Sierra Leone, Liberia, Cote d'Ivoire, Ghana, Togo, Benin, Nigeria, Cameroon and the Central African Republic and conditions are favourable with good rains at the start of the season.

MIDDLE EAST & NORTH AFRICA: Across the Middle East, good rains were received in March and April throughout the north of the region however, some concerns persist over early season dryness and conflict affecting the region. Across North Africa, the 2018 winter wheat crop season has improved from early season dryness with abundant and well distributed February to April rainfall however, concern remains over southern

Algeria and central Tunisia where carryover effects from early season dryness continues.

SOUTHERN AFRICA: Main season maize harvest will finish in May and while above normal rainfall was received in February over the previously dry central and southern regions, concern persists over these areas as permanent damage was sustained from early season dryness and high temperatures starting late December through late January as well as minor impacts of fall armyworm over the region.

CENTRAL & SOUTH ASIA: Across Central Asia and South Asia, below average precipitation during winter continue to pose threats to winter wheat production and below average soil moisture raises concerns of water shortages for irrigation and spring wheat over the coming months.

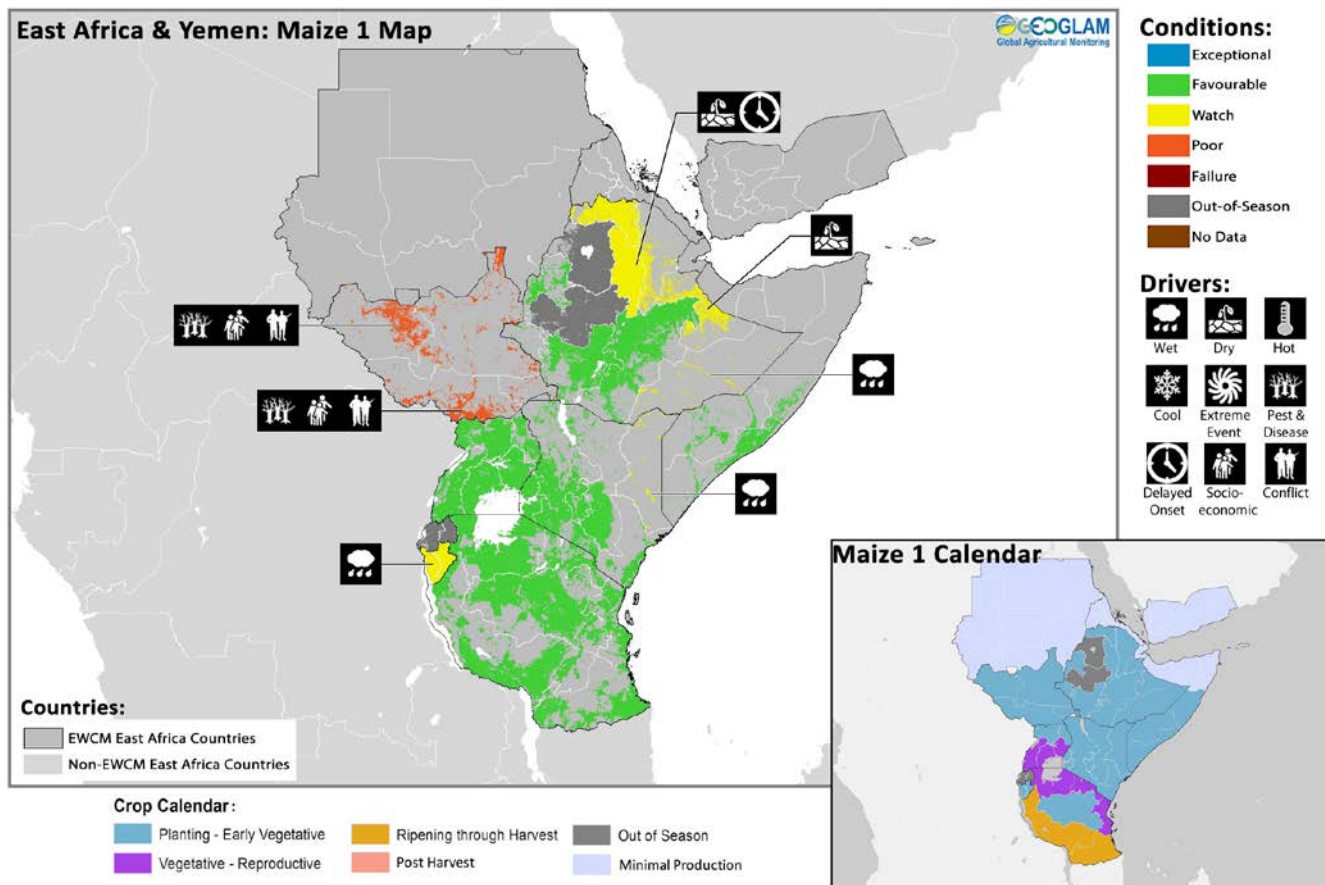
SOUTHEAST ASIA: In the northern side of Southeast Asia, dry season rice harvest is in high season and yields are favourable with good irrigation supply. In Indonesia, the harvesting of wet season rice is in its fourth month and yield prospects are fair.

CENTRAL AMERICA & CARIBBEAN: Across Central America, land preparations are underway for the start of the *primera* season and planting will commence in May

La Niña transition to neutral:

La Nina conditions are still present, though they are weak and in transition to a neutral state. There is a 70% chance that the neutral state will be established by the end of May. Thereafter, neutral conditions are expected (with greater than 50% probability) to persist throughout the northern hemisphere summer of 2018. Seasonal forecast models point to a possible shift to El Nino conditions by December 2018, but given the long lead time that outcome is quite uncertain at this time.

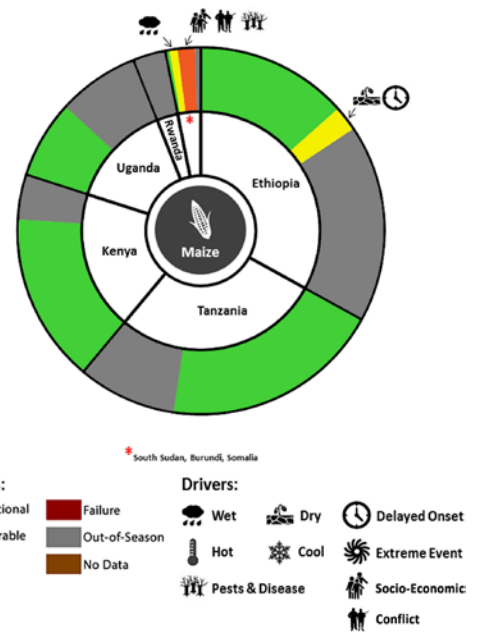
East Africa & Yemen



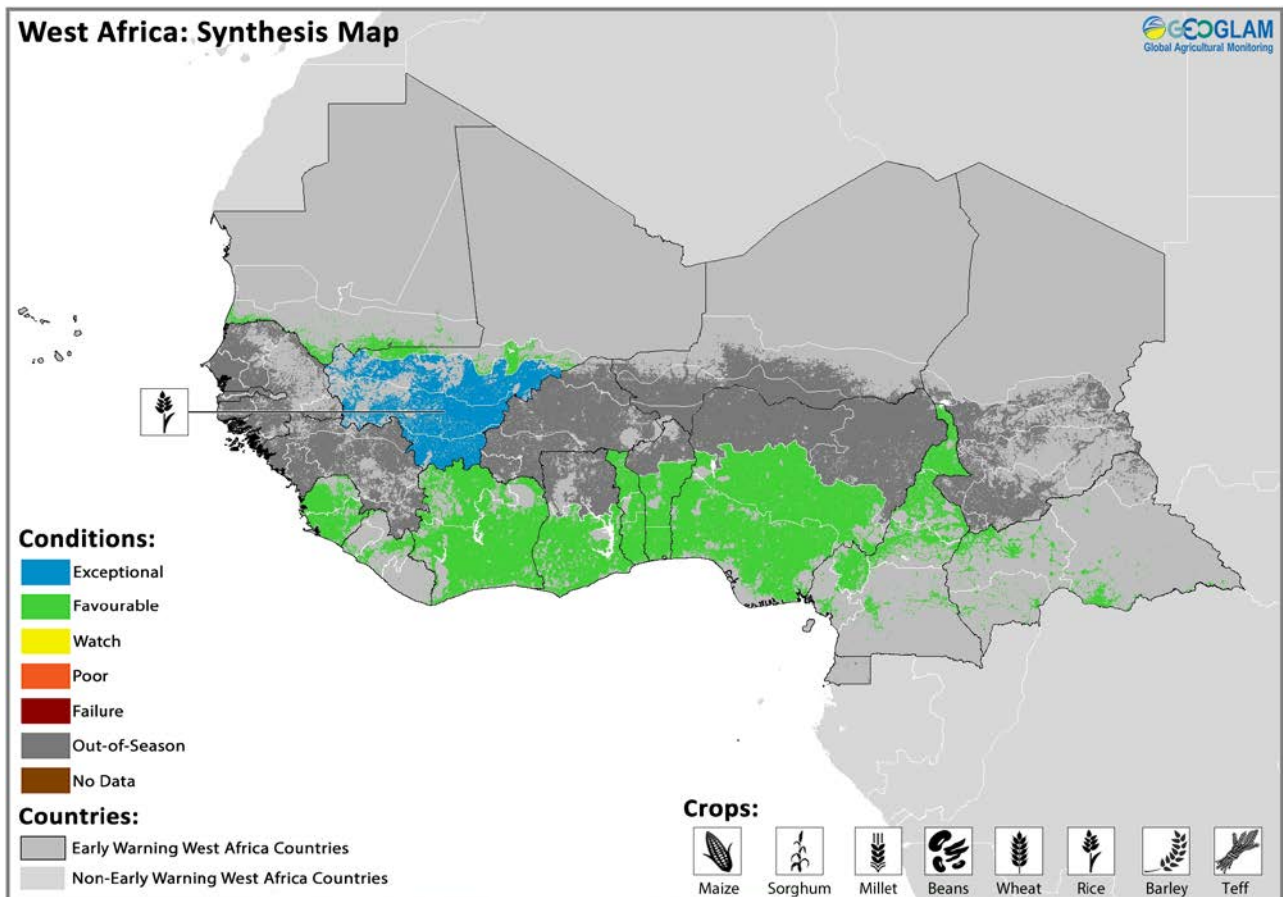
Crop condition map synthesizing conditions as of April 28th. Crop conditions over the main growing areas are based on a combination of inputs including remotely sensed data, ground observations, field reports, national, and regional experts. **Conditions that are other than favourable are labeled on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

In the north of the subregion, *belg* rains in Ethiopia had a timely onset however, since March dry conditions have affected central and northern areas. Across the south of the subregion, planting of main season crops has been recently completed in Kenya, Uganda, Somalia and northeastern Tanzania. Conditions are favourable as crop establishment benefited from abundant early season rainfall. In unimodal rainfall areas of central and southern Tanzania, the major *msimu* harvest is underway and production prospects are favourable. In **Ethiopia**, a timely onset of *belg* rains in mid-February was followed by dry conditions in March in southern Tigray, eastern Amhara and eastern Oromia. Subsequently, abundant rainfall in April offset the precipitation deficits in most areas, but concern remains as farmers are likely to have been forced to re-plant, and the ensuing delay of the *belg* harvest can affect planting of *meher* crops and result in a shortened crop development period. By contrast, in northeastern SNNPR, *belg* rains had a good performance so far, with a positive impact on crop conditions. In northern pastoral areas of Afar and Northern Somali region, *sugum/belg* rains started in April with about a one month delay, and current pasture and water availability remain below average. By contrast, in southern pastoral areas of Southern Somali region, *gu/genna* rains had a timely onset in April with, abundant precipitation benefiting crops and pastures but also triggering floods. In **South Sudan**, seasonal rains had an early onset in late February and have continued through April with adequate amounts in the southern bi-modal rainfall areas of the Greater Equatoria Region, where farmers engaged in the early planting of maize and food crops. Currently, the security situation in some areas of the Greater Equatoria Region is improving and this may result in better access to land for farmers with an increase in planted area. However, overall crop prospects are unfavourable due to the impact of the conflict, which resulted in widespread displacements in several key-producing areas. In addition, Fall Armyworm (FAW) outbreaks are reported. In **Somalia**, abundant *gu* rains benefited crop establishment and development in southern key-producing areas but also triggered widespread floods. In riverine areas, the flood-related crop damages are likely to result in a below-average maize production is expected in June. However, above-average off-season maize production is expected in September. In **Sudan**, harvest of the 2018 wheat crop planted in November is complete and the output is estimated at

above-average levels. In **Kenya**, planting continues for main *long rains* season crops and conditions are favourable due to abundant seasonal rains which, however, resulted in widespread floods. The areas most affected by the floods are Tana River and Garissa counties. In **Uganda**, conditions are favourable for main season crops with timely onset of rains in March and abundant early season rainfall through April. Above average rainfall has led to some floods in localized areas. Similarly, in **Burundi**, abundant rains in April benefited season B crops but also resulted in flooding, particularly in eastern lowlands. In the **United Republic of Tanzania**, the major *msimu* harvest is underway in central and southern unimodal rainfall areas, and prospects are favourable over the main producing areas of the southern highlands as crops benefited from adequate rains. Conditions are favourable also for *masika* crops, to be harvested from July in northeastern bi-modal rainfall areas. In **Yemen**, sorghum planting started in March and there is concern due to delayed start of the rains and dry conditions. In addition, ongoing conflicts impacts agricultural practices and access to fields.



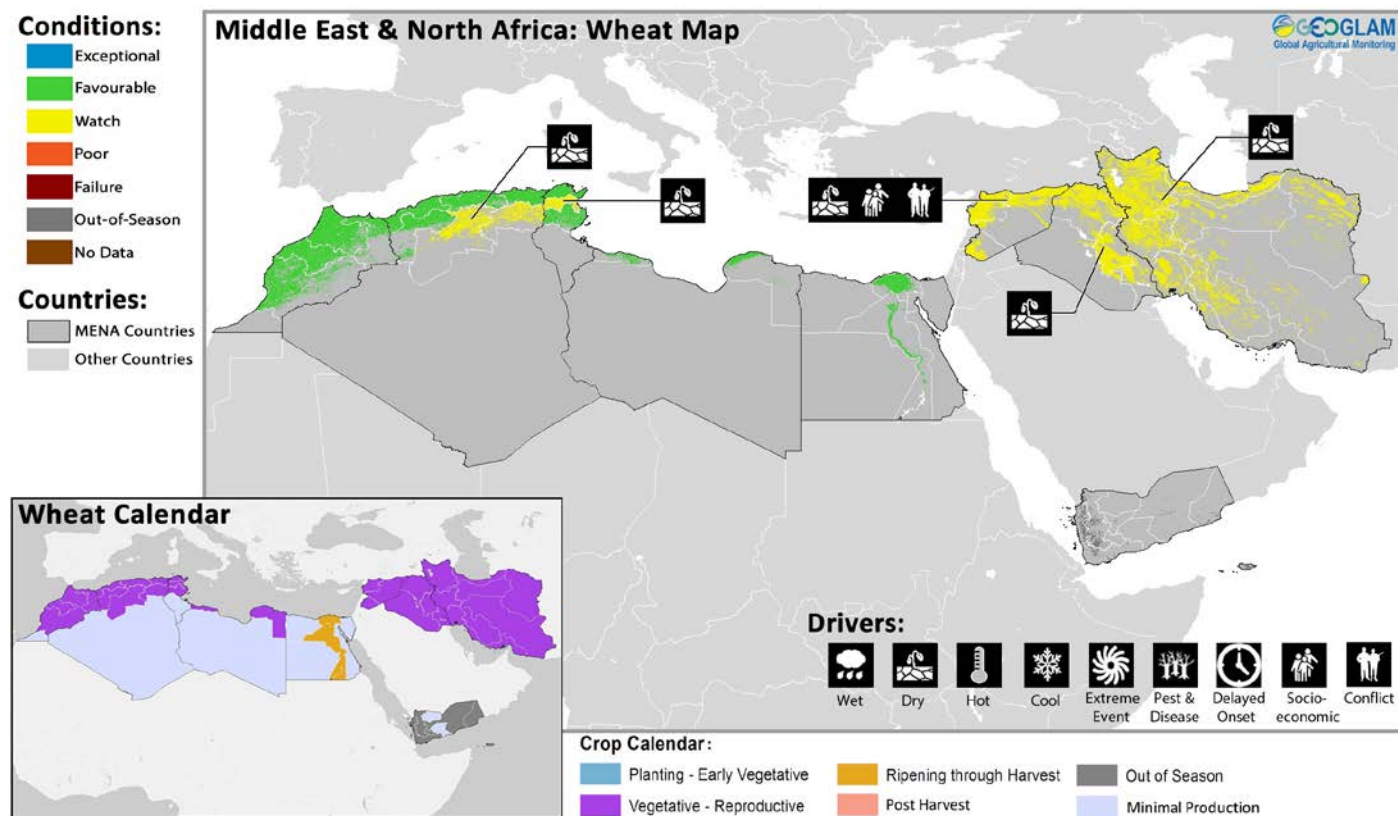
West Africa



Crop condition map synthesizing information 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.**

In southern West Africa, planting of main season cereals is underway and will continue through May across Sierra Leone, Liberia, Cote d'Ivoire, Ghana, Togo, Benin, Nigeria, Cameroon and the Central African Republic and conditions are favourable with good rains at the start of the season. In **Mauritania**, harvest is underway for second season rice and production prospects are favourable. In **Mali**, second season rice harvest is complete and production was favourable with exceptional yields across the south and central areas.

Middle East & North Africa

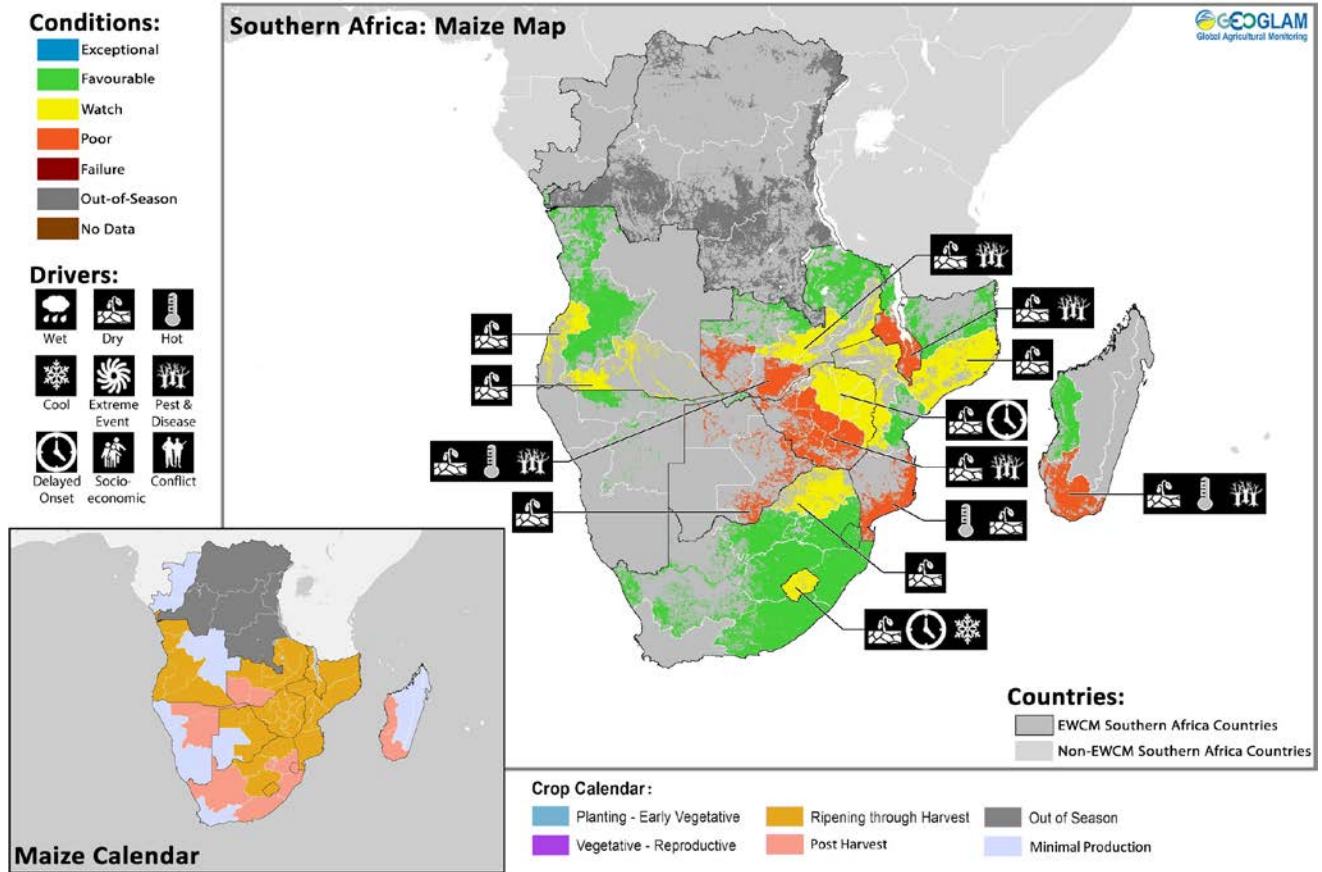


Crop condition map synthesizing information as of April 28th. Crop conditions over the main growing areas are based on a combination of inputs including remotely sensed data, ground observations, field reports, national, and regional experts. **Conditions that are other than favourable are labeled on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

Across the Middle East, good rains were received in March and April throughout the north of the region however, some concerns persist over early season dryness and conflict affecting the region. In **Iran**, rainfall deficits have improved with good rainfall over northern areas in March and April following an extended dry spell that affected the country since October however, drier than average conditions and above average temperatures persist in the less productive south. In **Iraq**, despite improvement from good rains since the start of January following a dry October-December period, and temperatures above average by 2 to 3C, crop conditions remain below average due to carryover effects from early season dryness. Additionally, in north west Mossoul and Dahuk many fields were not planted or have failed due to conflict in the region. In the **Syrian Arab Republic**, despite good rains received at the start of 2018 after the October-December dry spell, many fields were not sown or crops have failed notably over eastern Hassakeh and parts of Aleppo and Dayr Az Zor due to ongoing conflict.

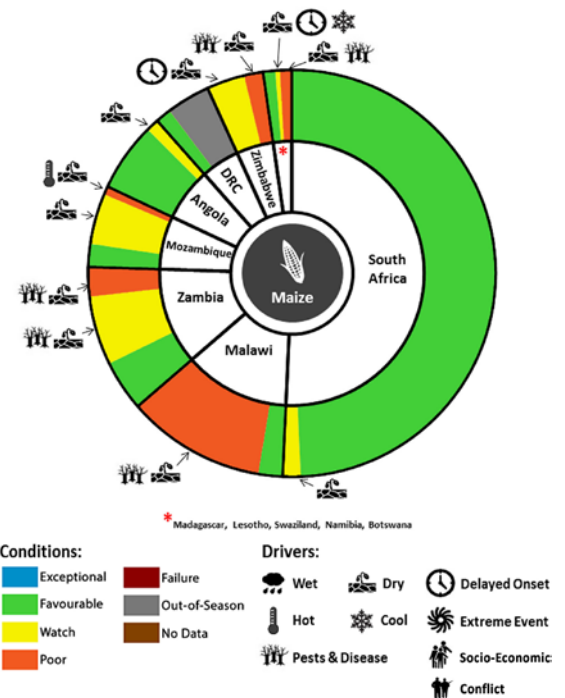
Across North Africa, the 2018 winter wheat crop season has improved from early season dryness with abundant and well distributed February to April rainfall however, concern remains over southern Algeria and central Tunisia where carryover effects from early season dryness continues. In **Morocco**, rainfall in January and February improved moisture levels, notably in the northern coast and eastern areas, and conditions are favourable. In **Algeria**, the 2017/2018 winter crop season continues under mixed conditions with delayed onset of the rains and water deficits in the south while normal levels of precipitation have been received across the coastal and western areas. In **Libya**, with limited production of winter wheat, crop conditions are favourable with adequate rains received. In **Tunisia**, there is concern in the centre due to irregular rainfall distribution affecting winter crops. In **Egypt**, winter wheat conditions, grown primarily under irrigation, are favourable.

Southern Africa



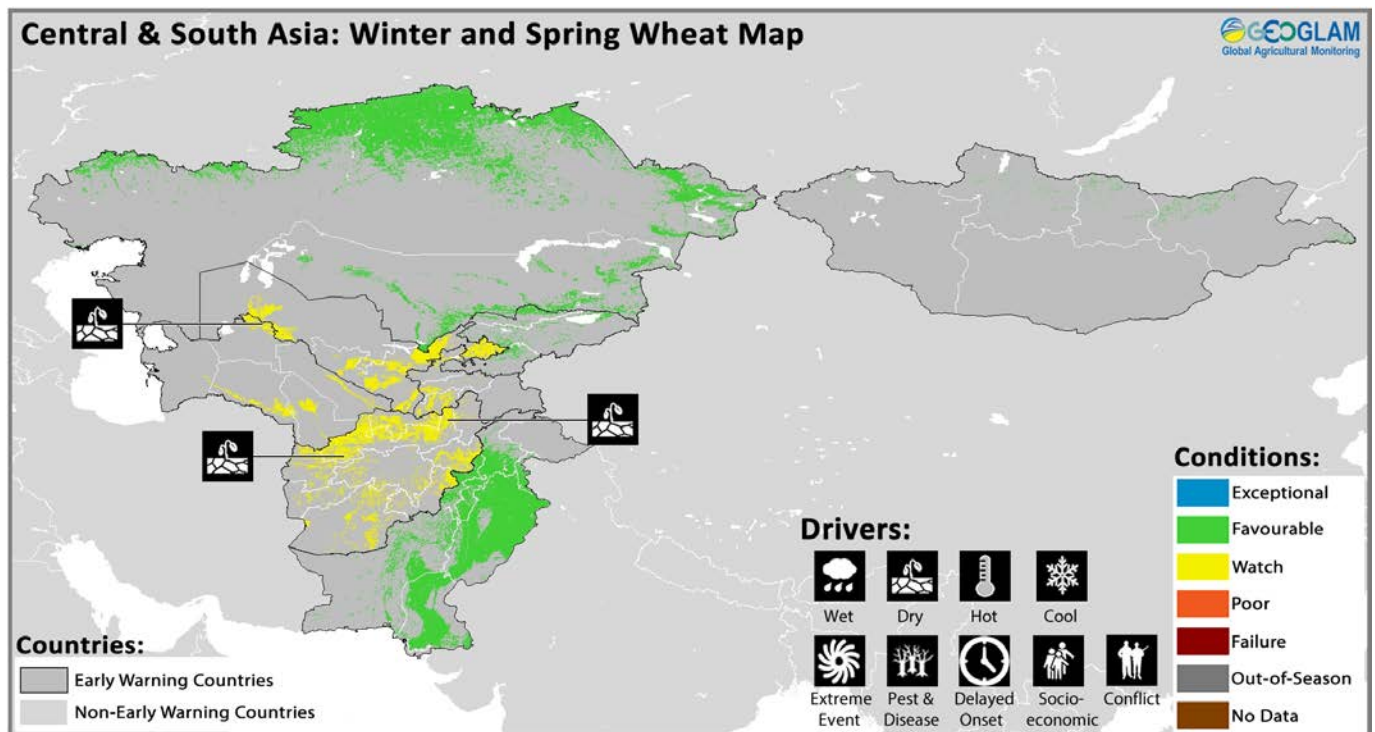
Crop condition map synthesizing information as of April 28th. Crop conditions over the main growing areas are based on a combination of inputs including remotely sensed data, ground observations, field reports, national, and regional experts. **Crops that are in other than favourable conditions are labeled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

In Southern Africa, main season maize harvest will finish in May and while above normal rainfall was received in February over the previously dry central and southern regions, concern persists over these areas as permanent damage was sustained from early season dryness and high temperatures starting late December through late January as well as minor impacts of fall armyworm over the region. In **Namibia**, rains in February and March improved early season dryness and while production is expected to be below last year, it will still remain above the 5-year average over the north and central. However, poor production is expected over the most affected Kunene where crops were unable to recover from drought. In **Lesotho**, total season rainfall has been average to above average and while the January dry spell caused significant moisture deficits, rains in February and March improved crop condition. Additionally, unexpected snow and frost negatively impacted crops, especially in the mountains, where replanting was required early in the season. In **Malawi**, while the January dry spell was significant, many crops in north were able to recover following February rains. However, the majority of crops in the central and south suffered significant moisture stress and permanent wilting as well as impacts from fall armyworm and production prospects in these areas are poor. In **Botswana**, total season rainfall has been well below average since the start of the season notably over the eastern and northern areas and despite some rain in early February, crops remain poor due to permanent wilting sustained from early season dryness. Harvest started in April and production prospects are below average due to decreased planted area, above normal temperatures and rainfall deficits. In **Angola**, production prospects remain below average in the central/southern coastal areas with less than 70% of average rainfall received however, in the northern coastal area conditions are stable. The main agricultural regions in Huila and Huambo have received good rainfall throughout the season. In the **Democratic Republic of Congo**, conditions are favourable for sorghum and maize crops across all areas with generally average rains received except for some dryness in early March in the western areas. In **Zambia**, while conditions are favourable in the north, the early season



dry spell from late December through January caused extreme moisture stress and wilting to main season crops in some areas. The impact of fall armyworm is also expected to contribute to yield reduction. Rainfall related yield reductions are concentrated in the central and southern areas, while northern areas may have boosted national production. In **Zimbabwe**, though cumulative rainfall is now above average for the season, crops in the most affected south suffered extreme moisture stress during the prolonged dry spell and sustained permanent damage despite rainfall improvements in February. Outbreaks of fall armyworm also contributed to crop failures across the southern areas. Mataberland south and Masvingo were most affected by the drought and production prospects are expected to be low. In **Madagascar**, despite above average rainfall in February, poor seasonal performance with consistent below average rainfall and relatively high temperatures wilted crops beyond recovery in the south and south west. This in combination with fall armyworm impacts have led to poor production prospects for the 2018 season. In the east and central areas, production prospects are favourable with good rains received. In **Mozambique**, below average rainfall and high temperatures since the start of the season has led to poor production expectations in the most affected south, however conditions have improved in the previously dry north. In **Swaziland**, conditions are favourable for main season maize with good rains received. In **South Africa**, above-normal rainfall continued through March over most of the eastern maize production region, where yellow maize is produced, resulting in favourable conditions. Over the western parts, where white maize is produced, conditions overall are favorable due to above-normal rainfall since mid-January and a very late onset of frost. Land preparations are underway for planting of winter wheat crops in May.

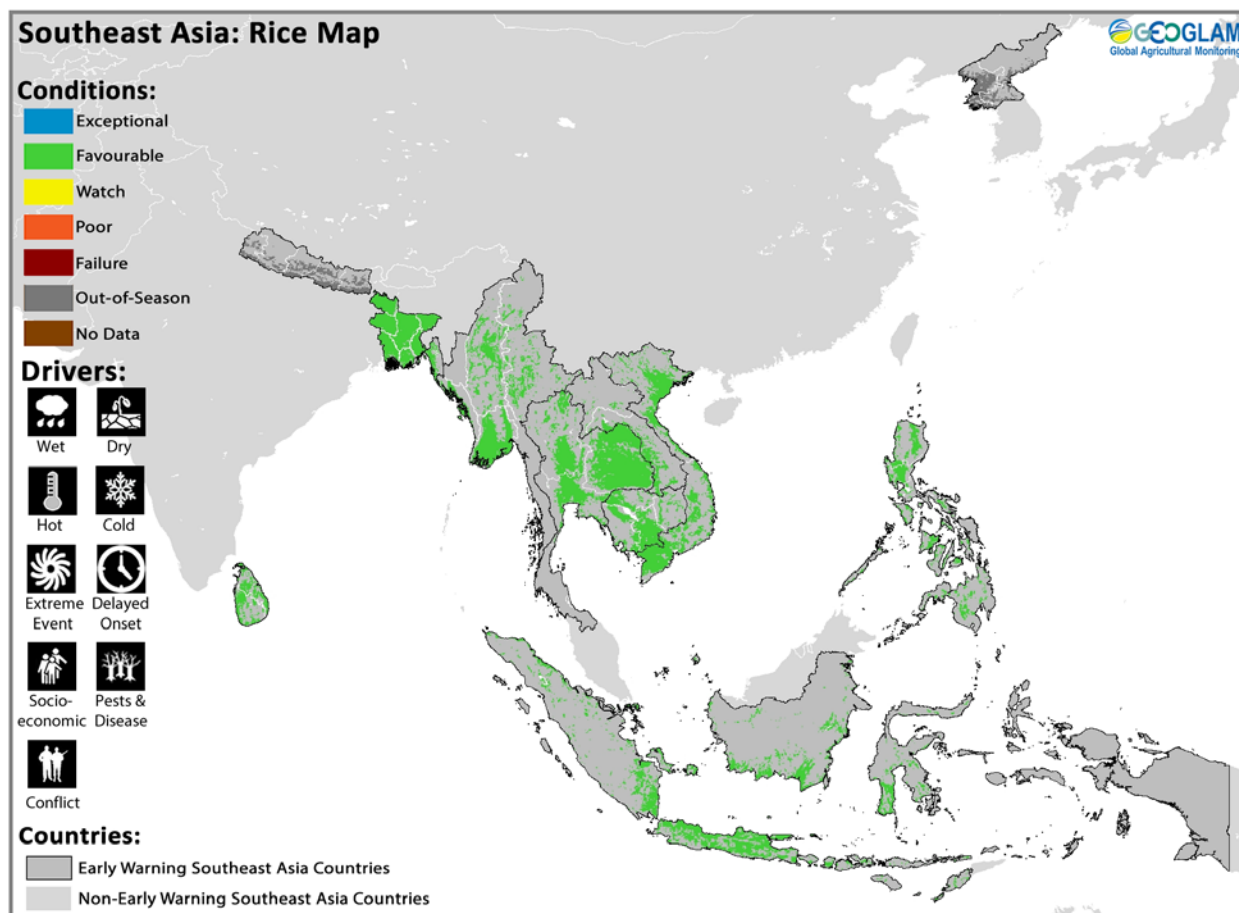
Central & South Asia



Crop condition map synthesizing information 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.**

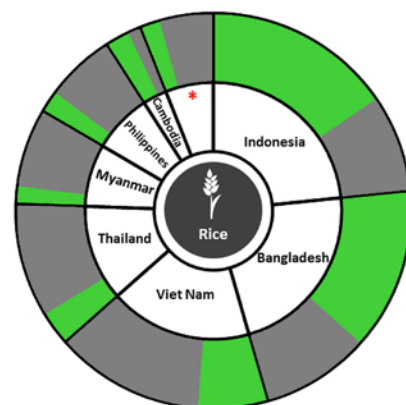
Across Central Asia and South Asia, below average precipitation during winter continue to pose a threat to winter wheat production and below average soil moisture raises concerns of water shortages for irrigation and spring wheat over the coming months. In **Kazakhstan** and **Kyrgyzstan**, winter and spring wheat crops are generally favourable. In **Tajikistan**, despite the fact that majority of crops are irrigated, some areas in Khatlon region were affected by drought. The below average precipitation and reduced snow coverage raises concerns for the region as the Amu Darya river is an important water supply for agriculture in the whole sub region. In **Turkmenistan**, Lebap and Mary regions were negatively affected by below average precipitation. In **Uzbekistan**, concern remains due to dry conditions notably over Samarkand and Kashkadarya regions. In **Afghanistan**, the irrigated areas in the south, southwest, and western portions of the country are generally favourable, however, in parts of the north, central and northwest over Balkh, Faryab, and Jawzjan, limited autumn and spring precipitations have reduced winter and spring wheat sowings and appear to be having adverse impacts on both irrigated and rainfed wheat. This may in turn have impacts on summer crops later in the year. In **Pakistan**, winter wheat conditions are favourable with good rainfall amounts received. In **Mongolia**, spring wheat planting started in April and conditions are favourable at the start of the season.

Southeast Asia

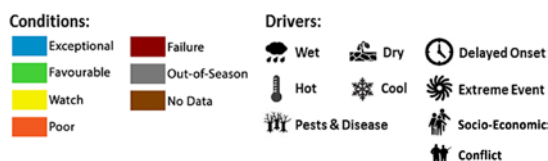


Crop condition map synthesizing information for rice as of April 28th. Crop conditions over the main growing areas are based on a combination of inputs, including remotely sensed data, ground observations, field reports, national, and regional experts. **Conditions that are other than favourable are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

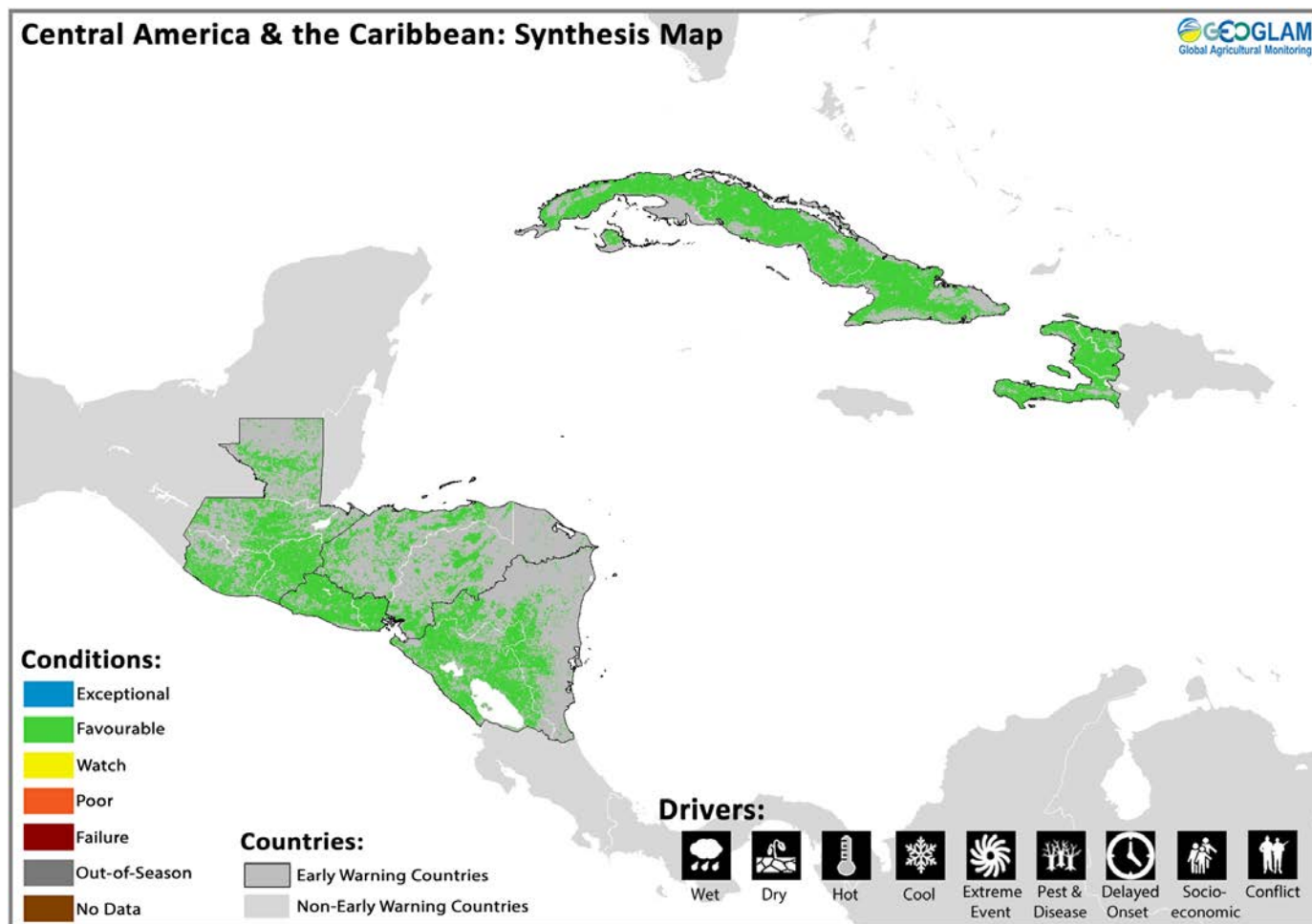
In the northern side of Southeast Asia, dry season rice harvest is in high season and yields are favourable with good irrigation supply. In Indonesia, the harvesting of wet season rice is in its fourth month and yield prospects are fair. In **Viet Nam**, winter-spring rice (dry season rice) is under favourable conditions with a slight decrease in total sown area in the north, while a slight increase in total sown area in the south. Harvest has begun in the south with early yields estimated to be slightly above last year's. In **Thailand**, dry-season rice is being harvested across the country under favourable conditions owing to sufficient rainfall and irrigation water throughout the season. In **Laos**, dry season rice harvest is ongoing and conditions are favourable. In **Cambodia**, harvest is complete for dry season rice and production was average due to adequate supply of irrigation water. Sowing of early wet season rice started in April and conditions are favourable. In **Myanmar**, dry season rice is under favourable conditions. Harvest is underway for early planted crops and yields are above average. In the **Philippines**, conditions are generally favourable for dry-season rice which is currently being harvested. For the rice sown during November-December, yields are expected to be around average. In **Indonesia**, harvest of wet-season rice continues with favourable yields owing to enough irrigation water and sunlight during the critical development period. Sowing of dry-season rice is delayed by one to two months due to unstable rainfall which is needed to build up the season's irrigation water. In **Bangladesh**, *boro* rice harvest started in April and production prospects are favourable. In **Nepal**, planting of the 2018 maize crop began in February and crops are now in vegetative stage and conditions are favourable with good rains at the start of the season. In **Sri Lanka**, harvest is complete for the main 2018 *maha* season and production partially recovered from 2017's poor level. However, production in the north and northwest remained below average due to below average rains and low irrigation availability over the most affected Puttalam and Kurunegala district, located in the north-western province and Mannar district in the northern district.



* Nepal, Sri Lanka, Lao People's Democratic Republic, Democratic People's Republic of Korea

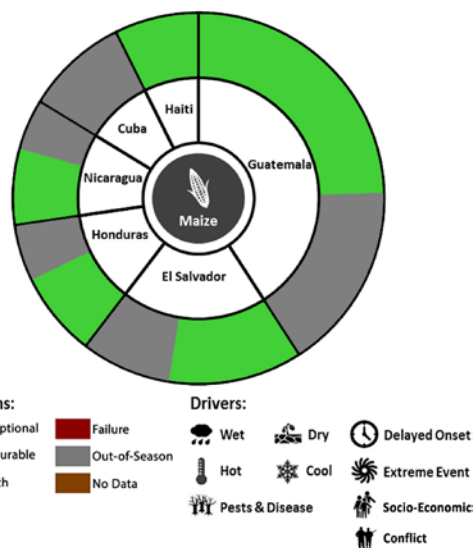


Central America & Caribbean



Crop condition map synthesizing information 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 Central America, land preparations are underway for the start of the *primera* season and planting will commence in May. In **Cuba**, main season rice planting is underway and conditions are favourable despite some concern in localized areas due to dry conditions. In **Haiti**, main season rice planting started in February and conditions are favourable with good rains at the start of the season. Planting of main season maize and bean crops is underway with some below average precipitation in April.



Information on crop conditions in the main production and export countries can be found in the [AMIS Market Monitor](#), published May 3rd 2018.

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.

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.



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.



Sources and Disclaimers:

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

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	

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

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Cover Photo by: Catherine Nakalembe

Early Warning partners



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