

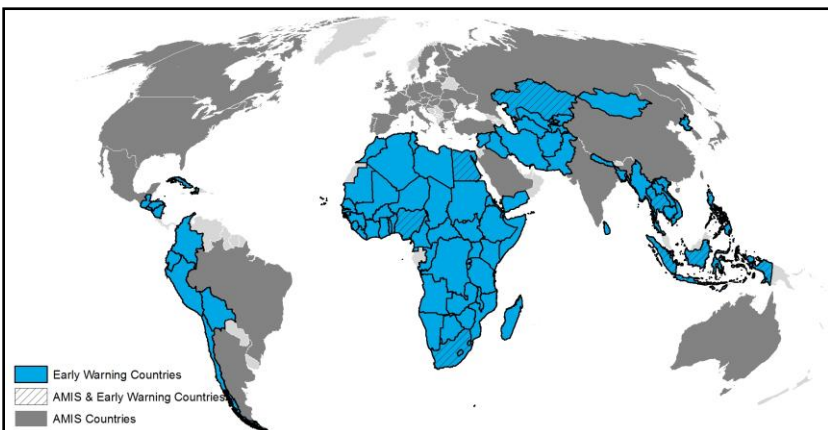


Crop Monitor

EARLY WARNING

Overview:

In **West Africa**, second season maize harvest is complete and production is favourable. In **East Africa** harvest is complete for main and second season crops and while production was generally mixed for main season crops in the north, production was poor for second season crops in the south due to dry conditions. Across the **Middle East and North Africa**, winter wheat planting is complete and there is some concern due to dry conditions at the start of the season. Planting is complete for main season maize in **Southern Africa** and there is concern due to dry conditions in the south. In **Central and South Asia**, winter wheat planting is complete and crops are in dormancy stage and under favourable conditions. In northern **Southeast Asia**, wet season rice harvest is complete and dry season rice planting is now ongoing under favourable conditions. In **Central America** and the **Caribbean**, segunda season harvest is now underway and conditions are favourable with good rains and temperatures.



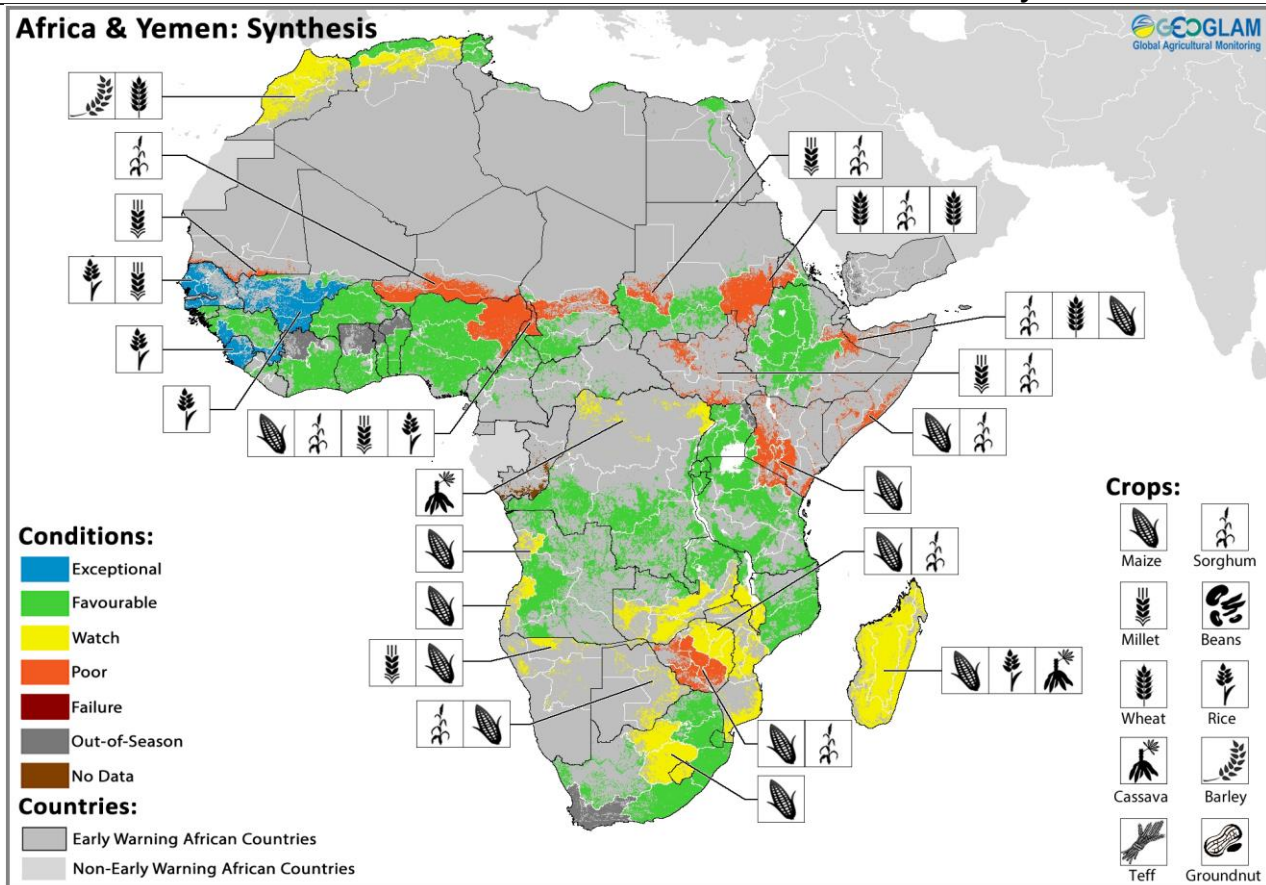
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GEOGLAM Crop Monitor for Early Warning

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: In the north of the sub region over Sudan, Ethiopia and South Sudan main season harvest is complete and crop performance was mixed due to dry weather over areas of Sudan and Ethiopia and ongoing conflict in South Sudan. Across the south of the sub region harvest of second season crops is complete and production was poor due to underproductive rains throughout the season.

WEST AFRICA: Across the bimodal zone of West Africa main season harvest is complete and production was generally favourable. Across the southern bimodal zone extending from Liberia to Cameroon harvest is complete for second season maize crops and despite concern at the start of the season and conditions have improved and production is favourable.

MIDDLE EAST AND NORTH AFRICA: Across the Middle East, winter wheat planting is complete and there is concern over dryness in parts of Iran, Iraq and Syria and ongoing conflict in Syria and northern Iraq expected to impact production. Across North Africa, planting of 2018 winter wheat crop is complete and under generally favourable conditions except in Algeria and Morocco where dry conditions have affected the start of the season however, recent rainfall in January has improved

SOUTHERN AFRICA: Main season maize planting finished at the start of January and while good rains were received in the north, there is concern in the south of the region where dry conditions have intensified along with abnormally high temperatures threatening production.

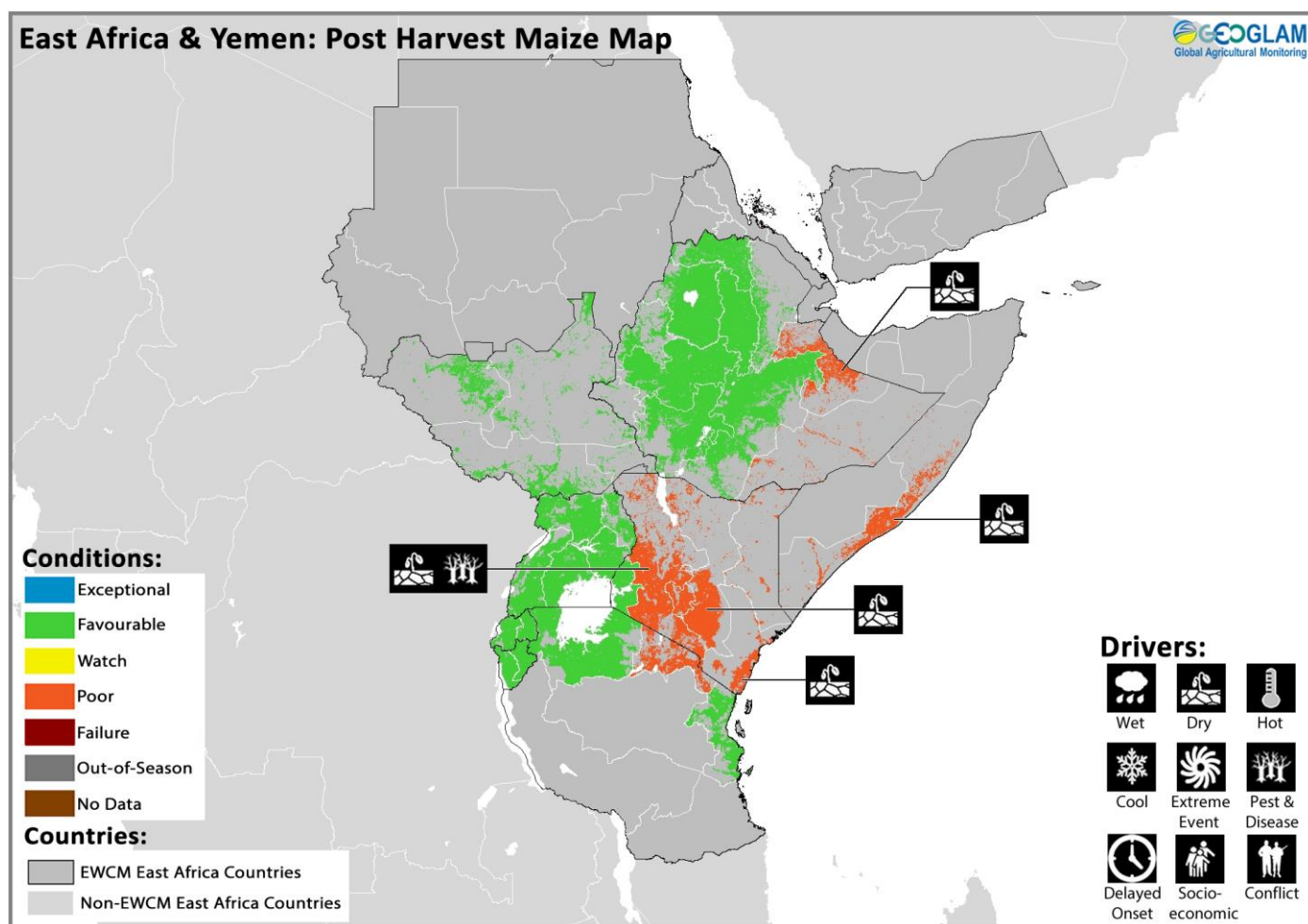
CENTRAL AND SOUTH ASIA: Winter wheat planting is complete and crops are now in dormancy stage and conditions are favourable. However, at the end of January, anomalously cold weather affected Kyrgyzstan, Kazakhstan, Uzbekistan and Tajikistan. In Afghanistan and Pakistan there is concern due to below average rainfall.

SOUTHEAST ASIA: In the Northern side of Southeast Asia, planting of dry season rice has started across most areas and conditions are favourable due to sufficient irrigation water and good weather. In Indonesia, while planting is still ongoing for wet season rice, the earliest planted crops are now under harvest with some concern for final yields due to lack of sunlight.

CENTRAL AMERICA & CARIBBEAN: Segunda (*postrera*) season maize and bean harvest is now underway and production prospects are favorable.

La Niña advisory ongoing:

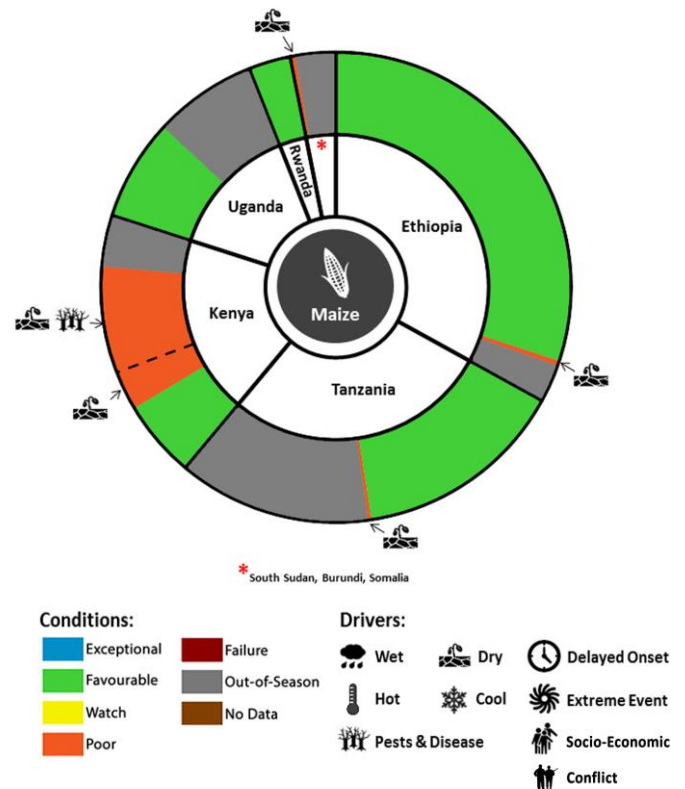
A La Niña Advisory has been in effect since November 2017, and the probability of persistence through March is 65%, nearly double the typical probability for that month of the year. Thereafter, La Niña conditions are expected to decline to a neutral state. Associated with the event, drier than normal conditions currently prevail in southwest Asia, the Horn of Africa, southeastern South America, eastern China, and the southern United States. Atypically for a La Niña event, areas of Southern Africa (Zimbabwe, Botswana, and parts of South Africa, Mozambique, Zambia, Malawi and Madagascar) are experiencing below average precipitation due to uncharacteristic conditions in the southern Indian Ocean. Similarly, though northern South America is frequently wetter than normal with La Niña, so far conditions are drier than average. Wetter than normal conditions, as expected, are being experienced in parts of Central America and the Caribbean, and in Southeast Asia (Philippines, Malaysia, and parts of Indonesia, Thailand, Cambodia, Laos and Vietnam.)

East Africa and Yemen

Crop condition map synthesizing post harvest 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.**

In the north of the subregion over Sudan, Ethiopia and South Sudan main season harvests were recently concluded. Crop performance was mixed with areas of poor production due to pockets of dry weather over Sudan and Ethiopia and ongoing conflict in South Sudan. Across the south of the subregion, harvest of second season crops is complete and production outcomes were poor due poor October-December rains over bimodal-rainfall areas of northeastern Tanzania, eastern Kenya and Somalia. By contrast, in Uganda, Rwanda and Burundi production prospects are favourable due to adequate and well distributed rains. In **Ethiopia**, the *meher* season is now complete with generally favourable production due to good rainfall over key-producing areas of the western Highlands. By contrast, in agro pastoral areas of North and South Somali, erratic rainfall resulted in below average crop production. In **Eritrea**, harvest finished at the end of December and delayed and erratic *kiremti* rains, main season sorghum production was favourable except over Gash Barka region. In **Djibouti**, production was favourable for main season sorghum and millet crops. In **Sudan**, harvest

of main season sorghum and millet crops was completed at the end of December and production is generally favourable except over Eastern States and Northern Darfur where poor production resulted from dry conditions. In **South Sudan**, despite favourable weather throughout the season, crop output was poor due to ongoing widespread insecurity disrupting agricultural activities and resulting in large-scale displacements. In **Kenya**, secondary “short rains” season crops will be harvested in February in southeastern and coastal lowlands and prospects are unfavourable due to dry conditions throughout the season. In **Uganda**, harvest is wrapping up for second season maize and millet crops planted in September and production prospects are favourable with good rains received throughout the season. In **Rwanda** and **Burundi** harvesting of season A crops, representing 35% of total crop production, has been recently completed and prospects are favourable as good rains were received. Over most cropping areas. In the **United Republic of Tanzania**, the *vuli* season is now complete over bimodal northern, northeastern and coastal areas, and a below average output is expected due to severe rainfall deficits over northeastern regions. Planting of the *msimu* crops over the main producing southern highlands is complete and conditions are favourable. In main cropping areas of central and southern **Somalia**, seasonal *deyr* rainfall were poor, with the most severe rainfall deficits recorded over key-maize producing areas of Lower and Middle Shabelle, and crop production is estimated at below-average levels, thus leading to the 4th consecutive reduced harvest.

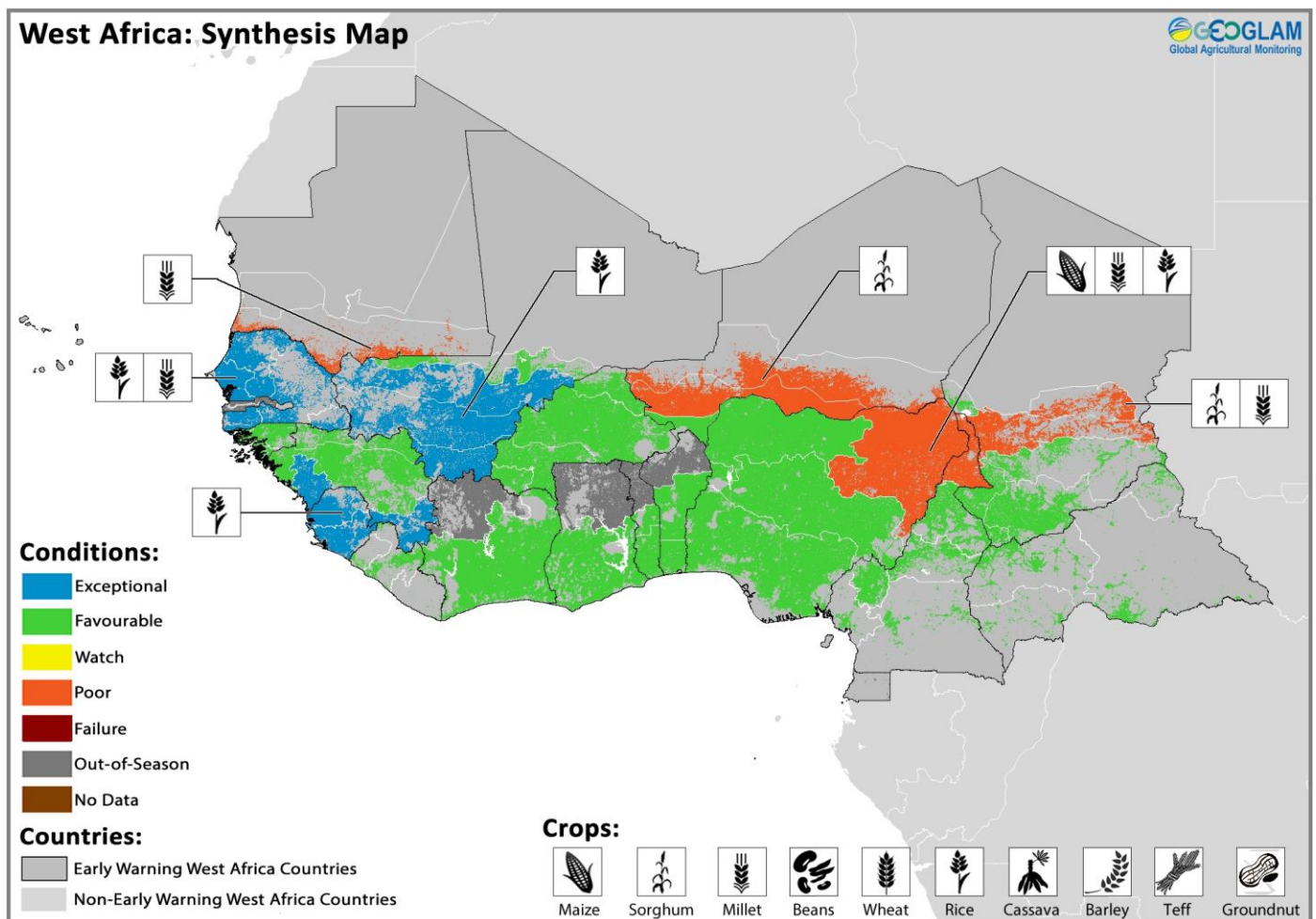


2017 post-harvest production highlights: South Sudan, Sudan

According to the preliminary findings of the 2017 joint FAO/ WFP Crop and Food Security Assessment, the 2017 aggregate cereal production in South Sudan was estimated at 8 percent down from 2016 and 14 percent below the average of the previous five years and the smallest output since the start of the conflict. The dismal performance of the 2017 cropping season, despite favourable weather conditions, is mainly due to severe cereal output contractions in the key-producing areas of the Greater Equatoria Region and in the former Western Bahr El Ghazal State following the increase in intensity and scale of the conflict which disrupted farming activities and resulted in large scale displacements. In Sudan, the 2017 aggregate cereal production (including the small irrigated wheat crop to be harvested in March 2018) is estimated to be 34 percent lower than the record 2016 output and 5 percent below the average of the previous five years. The reduced output is mainly due to production shortfalls in Kassala, Gedaref and North Darfur states following poor and erratic rainfall.

Source: FAO/WFP

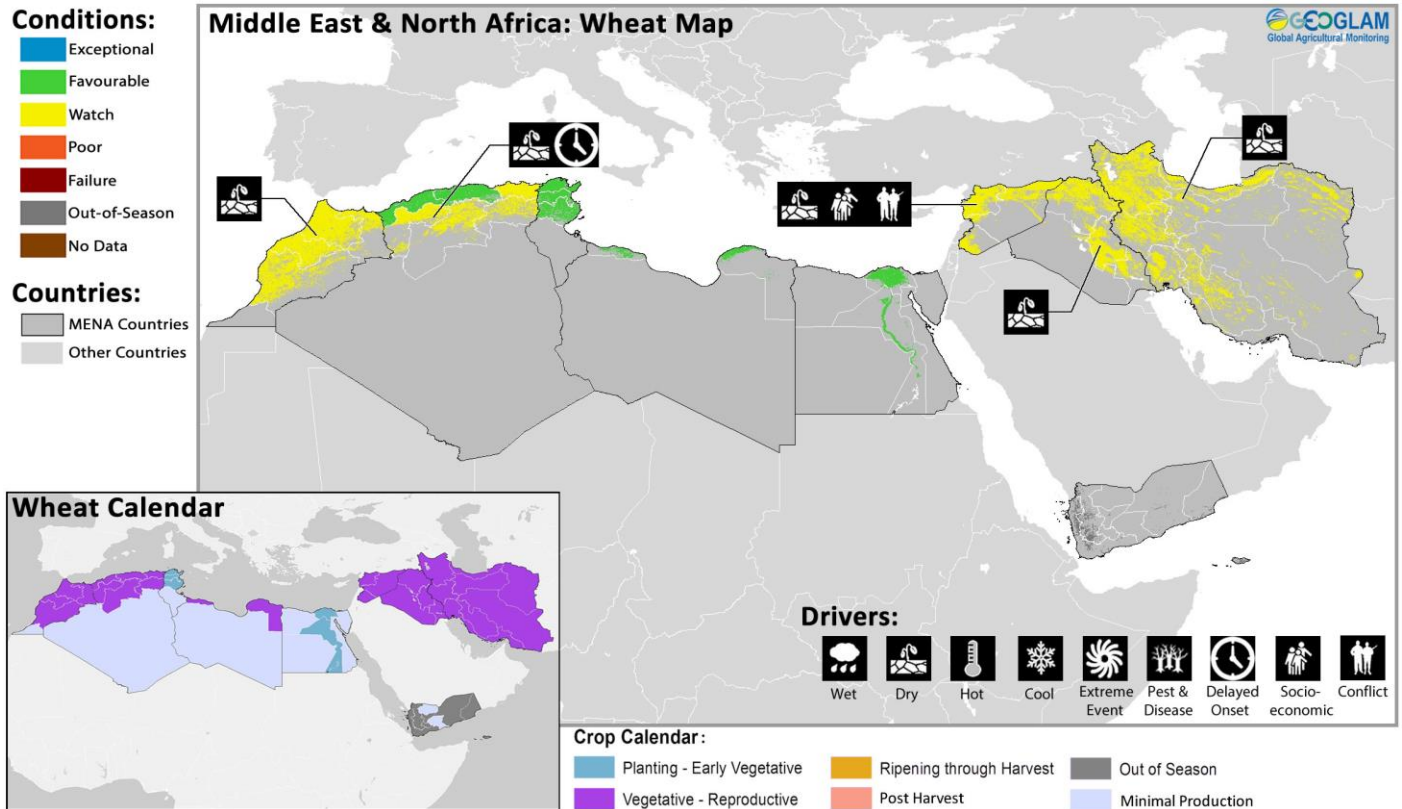
West Africa



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. **Regions that are in other than favourable conditions are labeled on the map with a symbol representing the crop(s) affected.**

Across the bimodal zone of West Africa harvest of the 2017 main season crops are complete and production was generally favourable. However, dry conditions throughout the season over parts of Mauritania, Niger, and Chad and ongoing conflict in Nigeria and Cameroon impacted agricultural activities and resulted in poor conditions across these areas. In **Senegal**, while most of the country was affected by below average rainfall in September, the water requirements for most crops were satisfied over much of the country at the exception of the extreme northern part of it. Main season crop production increased this year and millet production was estimated to be 49 percent above the last 5-year average. In **Mali**, total rice production was estimated at 5 percent above 2017 production levels and 28 percent above average. Across the southern bimodal zone extending from Liberia to Cameroon harvest is complete for second season maize crops and despite concern at the start of the season and conditions have improved and production is favourable except in Extreme Nord, **Cameroon** where ongoing conflict continues to impact agricultural activities.

Middle East & North Africa

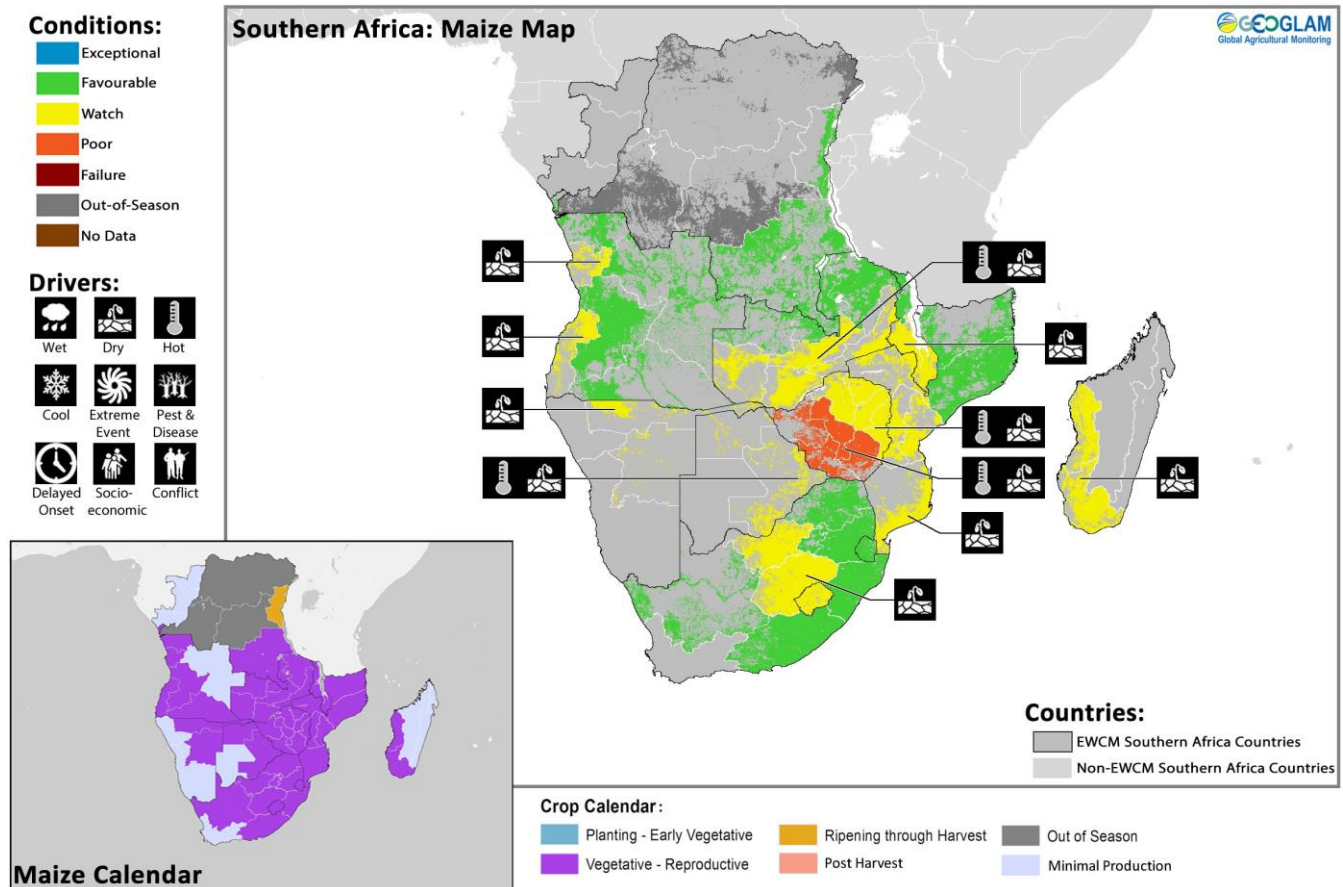


Crop condition map synthesizing information as of January 28th. Crop conditions over the main growing areas are based on a combination of inputs including remotely sensed data, ground observations, field reports, national, and regional experts. **Conditions that are other than favourable are labeled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

Across the Middle East, winter wheat planting is complete. Some concerns over the impact of autumn dryness in parts of Iran, Iraq and Syria prevail despite some beneficial rainfall for the still dormant or semi-dormant winter cereals received on the first two decades of January in Western and northern Syria, Northern Iraq and western Iran. In addition, ongoing conflict in the **Syrian Arab Republic** and northern **Iraq** is expected to constrain production and impact food insecurity.

Across North Africa, planting of 2018 winter wheat crop is complete. In **Morocco**, although rainfall in January slightly improved moisture availability, a concern persists across the country due to delayed onset of the rains at the start of the season, especially in the Centre/North of the country. Extremely low temperatures have been recorded in the Atlas Mountains in January. In **Algeria**, the 2017/2018 winter crop season continues to show a mixed condition with delayed starts and water deficits in the north east and in the central parts however, normal precipitation (including some snow) has been received from November to January in the western and central parts. In **Tunisia** and **Libya** winter wheat planting is complete and conditions are favourable at the start of the season with good rains received, with exception of western Tunisia. In **Egypt**, winter wheat and rice crops are favourable due to good rains and temperatures.

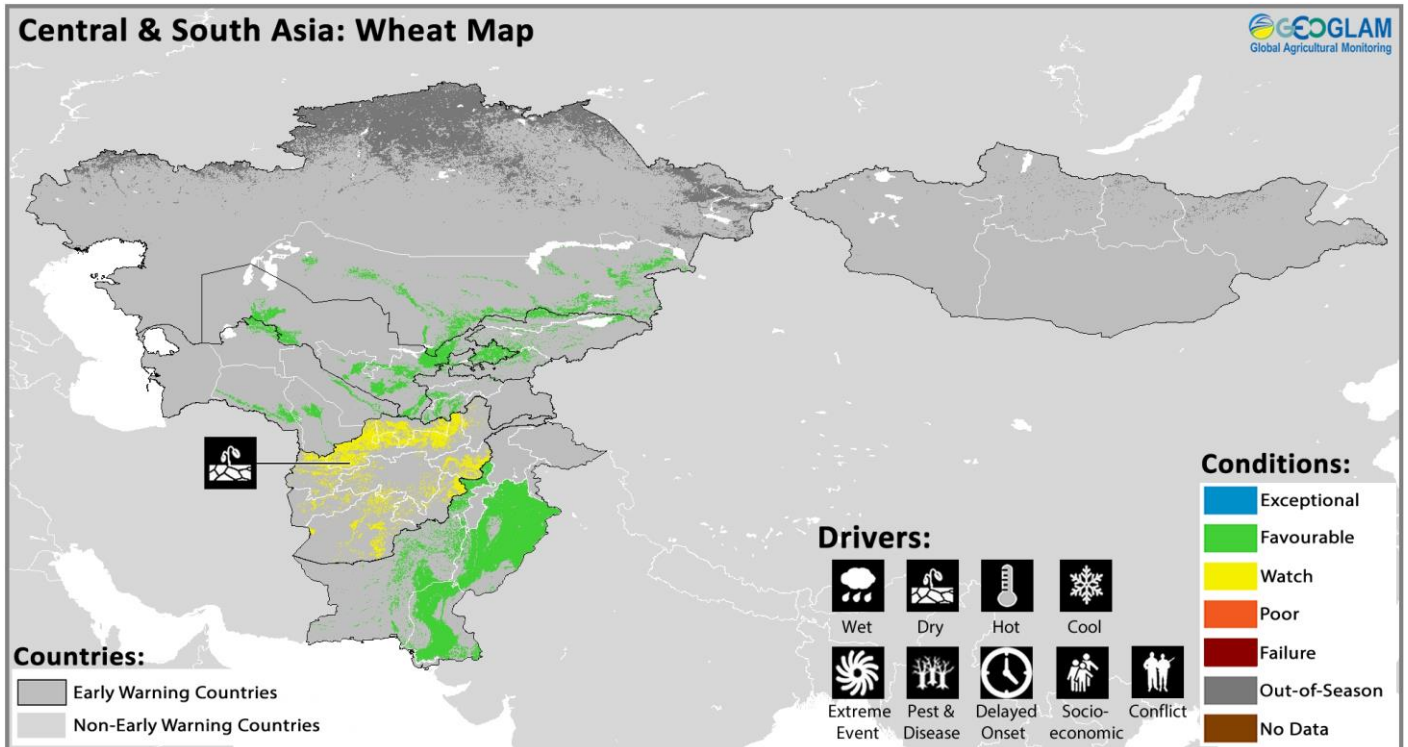
Southern Africa



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 maize planting finished at the start of January and while good rains were received in the north, there is concern in the south of the region where dry conditions have intensified along with abnormally high temperatures threatening production. In **Botswana, Namibia** and **Lesotho**, there is concern across all areas due to poor rainfall and above average temperatures. In **Malawi**, while northern areas experienced above average heavy rainfall in mid-January southern and central Malawi experienced below average rainfall and dry conditions. In **Angola**, there is concern for main season maize crop due to ongoing rainfall deficits across the central/southern coastal areas starting in November 2017 and particularly evident in the regions of Benguela, Cuanza and Namibe. In December the dry conditions have extended also to Bengo. The main agricultural regions in Huila and Huambo have received close to average rainfall so far. In **Zambia**, there is concern in the central and south due to below average rainfall and high temperatures. In **Zimbabwe**, ongoing dry conditions and high temperatures have led to reduced production prospects in most of the country for main season maize and sorghum, with the impact more severe in the south than the north. In **Madagascar**, severe heavy rainfall and strong winds from cyclone Ava in January caused flooding and damage to agricultural lands causing fatalities, population displacement and infrastructure damage. In southern and some parts of central **Mozambique**, there is concern due to below average rainfall and high temperatures which has negatively impacted crop conditions, while in the north conditions are favourable. In **South Africa**, above-normal rainfall over most of the eastern maize production region, where yellow maize is produced, have resulted in favorable conditions there. Over the western parts, where white maize is produced, hot and dry conditions during December and much of January resulted in low planting rates (about 70 - 75% of the normal). Widespread rain returned to both eastern and western regions since 19 January, bringing relief to moisture stressed crops, but the planting window has passed.

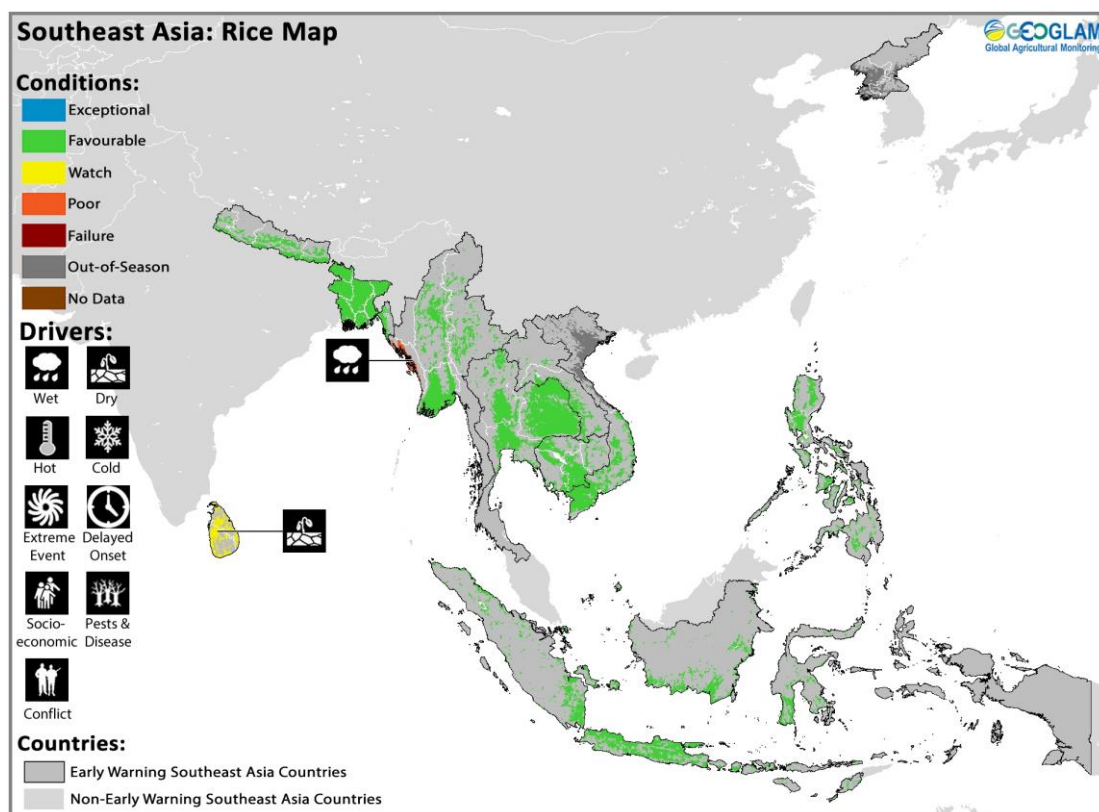
Central & South Asia



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.**

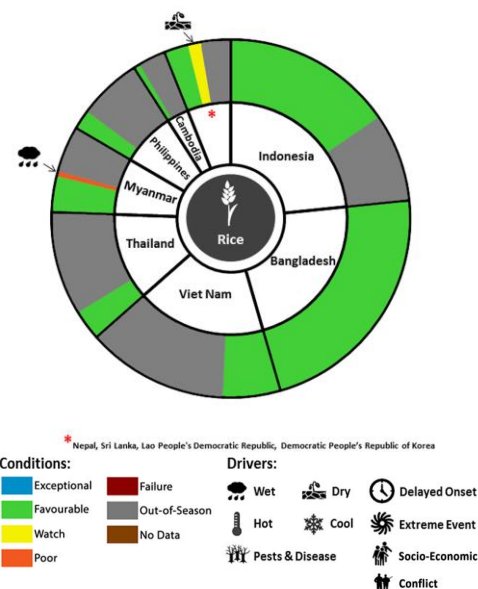
Across Central and South Asia winter wheat planting is complete and crops are now in dormancy stage and conditions are favourable in the subregion. However, at the end of January, anomalously cold weather (with temperatures reaching 40 degrees below zero in some areas) affected **Kyrgyzstan, Kazakhstan, Uzbekistan** and **Tajikistan**. At this stage, it is too early to evaluate if conditions of winter cereals were negatively affected by cold. In **Afghanistan**, the main rainy season has experienced deficit precipitation conditions through early January, which hampered some planting of winter crops. The below-average precipitation has resulted in reduced snow pack which has serious implications for available irrigation water in the spring. In **Pakistan**, winter wheat is ongoing and although rains improved in November -December over most of Sindh, a concern remains in the rainfed areas, which account for only 10 percent of the national wheat output, as these rains were not enough to offset the soil moisture deficit.

Southeast Asia

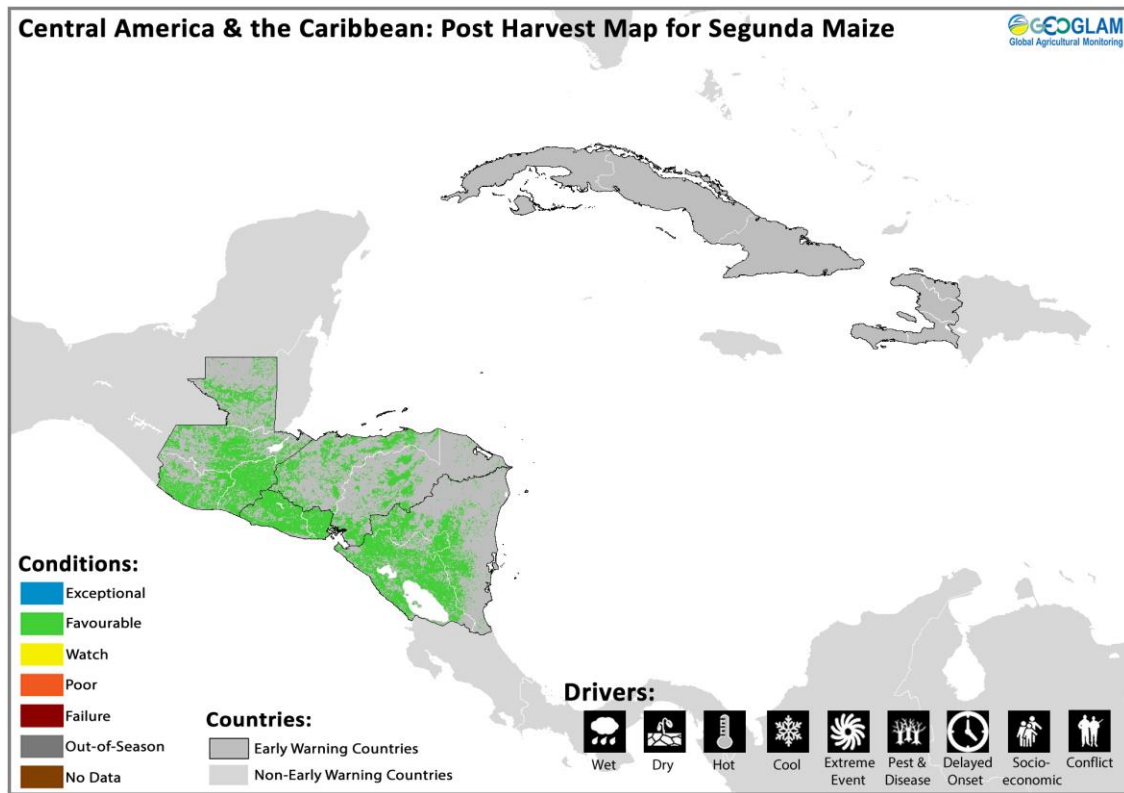


Crop condition map synthesizing information for rice as of January 28th. Crop conditions over the main growing areas are based on a combination of inputs, including remotely sensed data, ground observations, field reports, national, and regional experts. **Conditions that are other than favourable are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

In the Northern side of SE Asia, wet season rice harvest is complete. Overall the yield was slightly below normal however, northeastern Thailand, northern Philippines and the coastal region of Myanmar where flood damage occurred during the harvesting period resulted in poor production. Planting of dry season rice has started across most areas and conditions are favourable due to sufficient irrigation water and good weather. In Indonesia, while planting is still ongoing for wet season rice, the earliest planted crops are now under harvest with some concern for final yields due to lack of sunlight. In **Viet Nam**, sowing of the winter-spring rice (dry season rice) has begun in the south under favourable conditions, though the sowing rate is slowed this year due to the slow receding of waters. In **Thailand**, dry-season rice is in the vegetative stage under favourable conditions with an increase in sown area compared to last year expected owing to ample rainfall and irrigation water. In **Laos**, dry season rice is in seeding and transplanting stage and conditions are favourable. In **Cambodia**, dry season rice is in tillering stage and conditions are favourable due to sufficient irrigation water. In **Myanmar**, wet season rice harvest is complete and production was favourable despite unexpected rain in central areas during the first week of January. However, in the southwest of Rakhine, final production was poor due to heavy rains and flooding throughout the growing season that caused irreversible damage to planted crops and ongoing conflict in the region impacting agriculture practices. Dry season rice planting is now underway and conditions are favorable at the start of the season. In the **Philippines**, conditions are favourable for dry-season rice in the vegetative stage with an increase in sown area compared to last year. In **Indonesia**, conditions are favourable as sowing of the wet-season rice continues, albeit slowly, as farmers wait for enough rainfall. Harvest of earlier sown wet-season rice has also begun. In **Bangladesh**, *aman* rice crop is ongoing under favourable conditions. Winter wheat and *boro* rice planting finished at the end of January and early season conditions are favourable with good rains received. In **Nepal**, rice harvest completed in December and production was favourable. In **Sri Lanka**, harvesting of the 2018 main *maha* rice crop (accounting for about 65 percent of the annual production) began in mid-January and will finish at the end of March. Below-average rains throughout October 2017, coupled with low water levels in major reservoirs, delayed sowing operations. Planting progress as of December was well below normal years. As a result, the 2018 main season paddy output is expected to partially recover from last year's severely reduced level but still be below average.

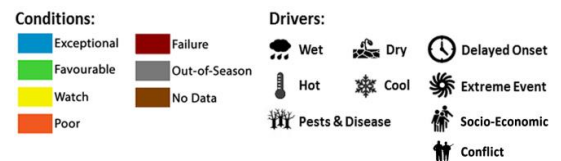
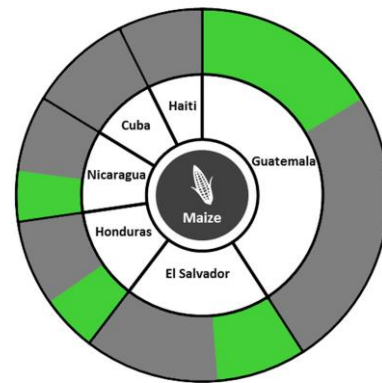


Central America & Caribbean



Crop condition map synthesizing post harvest 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.**

Across Central America, segunda (*postrera*) season maize and bean harvest is now underway and production prospects are favorable with good timing and quantity of rainfall supporting normal crop development throughout the season. Planting of the *apante* season bean crop is now ongoing over **Nicaragua** and conditions are favourable. In **Cuba**, conditions are favourable for main season maize and rice with good rains at the start of the season. In **Haiti**, second season rice harvests are complete and production is favourable with good rains received throughout the season.



Information on crop conditions in the main production and export countries can be found in the [AMIS Market Monitor](#), published February 1st 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 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.

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 (Winter/Spring)	Dry season (Autumn)	

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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Prepared by members of the GEOGLAM Community of Practice,
 Coordinated by the University of Maryland Center for Global
 Agricultural Research



**GROUP ON
 EARTH OBSERVATIONS**

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

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Early Warning partners



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