

Crop Monitor for AMIS

Overview:

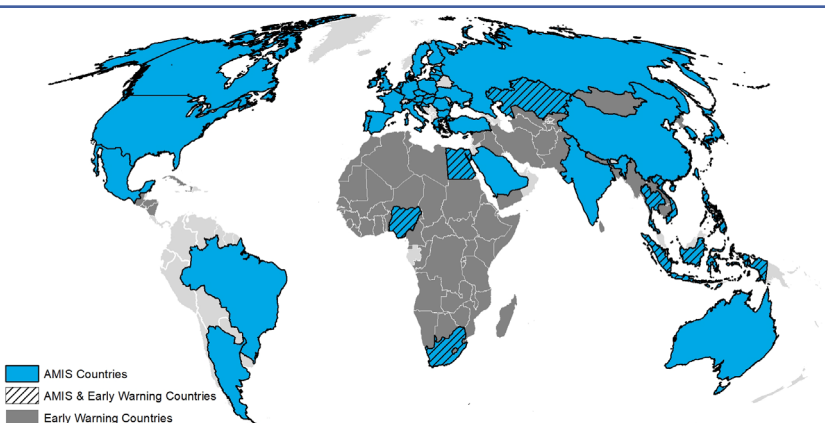
At the end of January, conditions are mixed for maize and soybeans, while favourable for wheat and rice. For wheat, harvesting is wrapping up in Australia under exceptional conditions while mixed conditions persist in the US, the Russian Federation, and Ukraine. Maize conditions in the southern hemisphere are mixed for Argentina and southern Brazil. Rice conditions are favourable in India and Southeast Asia, while mixed in South America. Soybeans are under hot and dry conditions in Argentina and southern Brazil.



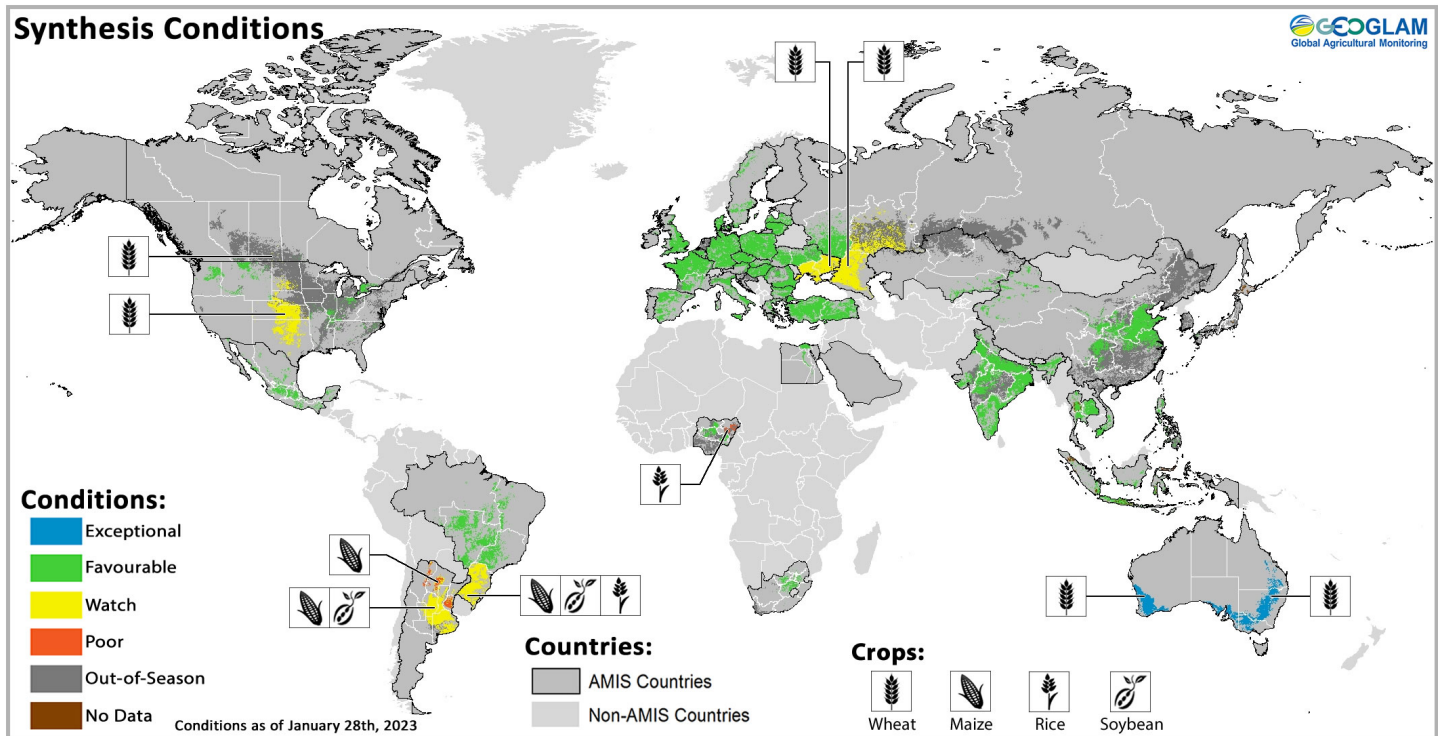
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Assessment based on information as of January 28th



At a glance for AMIS countries (as of January 28th)



Global crop condition map synthesizing information for all four AMIS crops as of January 28th. Crop conditions over the main growing areas for wheat, maize, rice, and soybean are based on a combination of national and regional crop analyst inputs along with earth observation data from all Crop Monitors. **Crops that are in other than favourable conditions are displayed on the map with their crop symbol.**

Crop Conditions at a Glance

Wheat - In the southern hemisphere, harvesting is wrapping up in Australia under exceptional conditions. In the northern hemisphere, winter wheat is under mixed conditions in the Russian Federation, Ukraine, and the US.

Maize - In the southern hemisphere, conditions have deteriorated in Argentina, while in Brazil, harvesting is beginning for the spring-planted crop (smaller season) along with the sowing of the summer-planted crop (larger season).

Forecasts at a Glance

Climate Influences – The El Niño-Southern Oscillation (ENSO) is currently in the La Niña phase. A transition to a neutral ENSO state is likely, with a 73% chance of ENSO neutral conditions in February-March-April, according to the IRI/CPC.

Argentina – In the short term (two weeks), below-average precipitation is expected over the next week followed by above-average precipitation the following week. The long-term (three months) forecast shows likely below-average precipitation.

Rice - In India, transplanting of the Rabi crop continues. In Southeast Asia, dry-season rice sowing has started in all northern countries while wet-season rice harvesting has started in Indonesia as sowing continues.

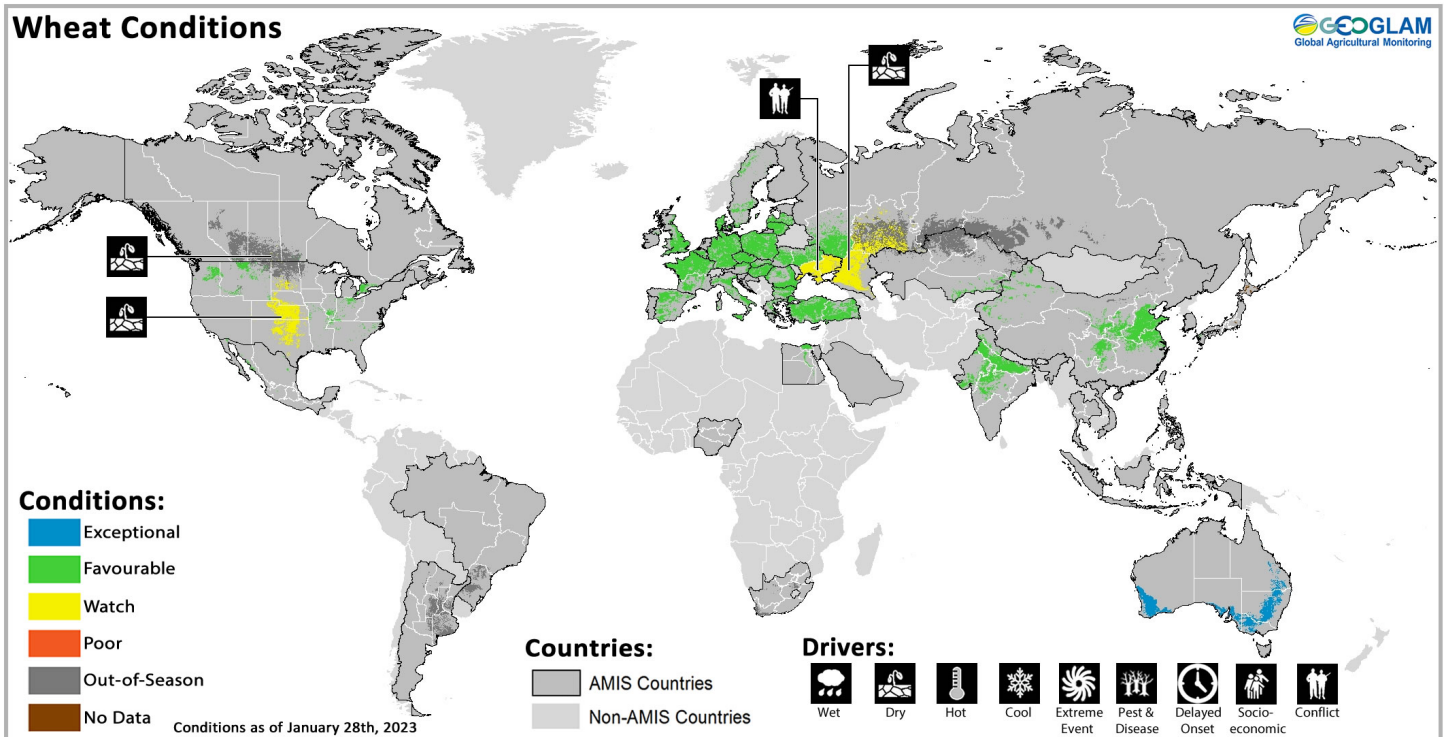
Soybeans - In the southern hemisphere, hot and dry conditions persist in Argentina and southern Brazil.

Brazil – February precipitation is likely to be below-average in the Southeast region, while possibly above-average in the Northeast and North regions. However, the long-term (three-month) forecast is for below-average rainfall across the South region.

The United States – The short-term (two weeks) forecast indicates likely below-average precipitation across the Southeast and Northern Great Plains, while the long-term forecast (three-month) indicates only below-average precipitation across the Central and Southern Great Plains.

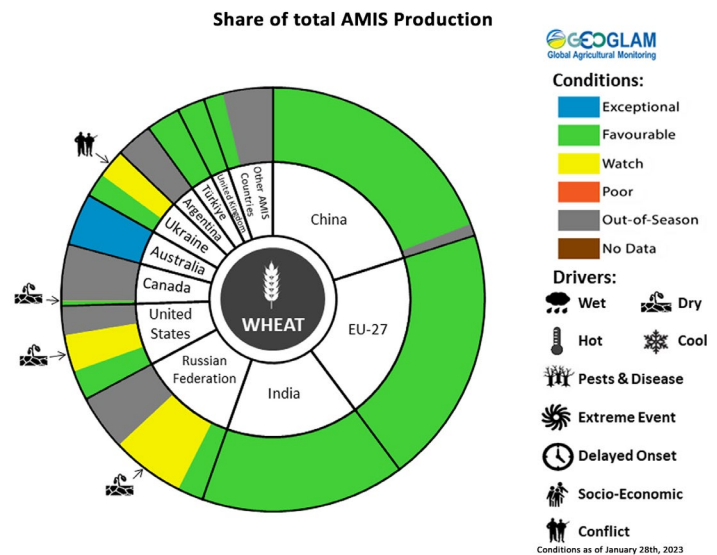
While the Crop Monitor for AMIS is primarily focused on documenting crop conditions based on environmental factors, the war in Ukraine and in other conflict areas will very likely negatively impact the ability of the crop to be harvested.

Wheat Conditions for AMIS Countries



Wheat crop conditions over main growing areas are based upon a combination of national and regional crop analyst inputs along with earth observation data. Crop condition information is based upon information as of January 28th. Where crops are in other than favourable conditions the climatic drivers responsible for those conditions are displayed. Crop Season Specific Maps can be found in Appendix 2.

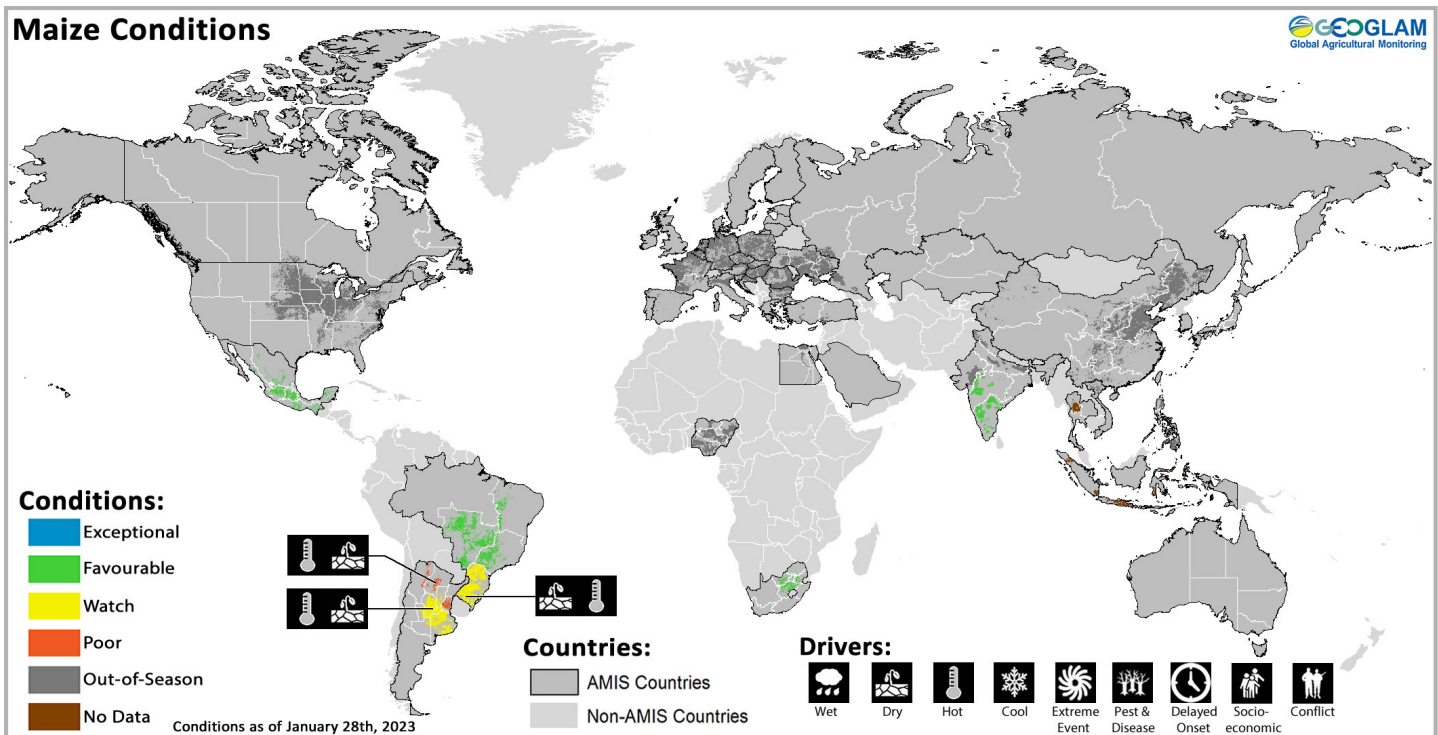
Wheat: In **Australia**, harvesting is wrapping up with exceptional conditions across all growing regions despite excessive rainfall and flooding in the eastern states. In the **EU**, conditions are favourable with the hardening process partially completed in most regions except for the very southern areas. In the **UK**, conditions are favourable. In **Türkiye** conditions are generally favourable despite recent drier-than-average conditions. In **Ukraine**, conditions are generally favourable, albeit with the ongoing disruptions/security concerns in the southern and eastern regions due to the war. In the **Russian Federation**, drier-than-average conditions are present over much of the winter wheat growing areas except in the westernmost regions. In **China**, winter wheat is under favourable conditions. In **India**, sowing is wrapping up under favourable conditions. There is an increase in total sown area compared to the average. In the **US**, dry soil conditions persist across the Great Plains from South Dakota to Texas. In **Canada**, winter wheat conditions are generally favourable except for in Saskatchewan due to dryness.



For detailed description of the pie chart please see box on page 6.

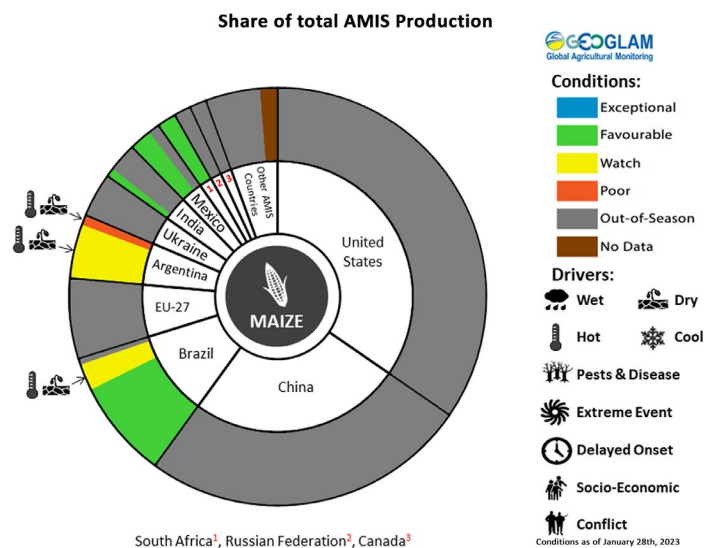
* Assessment based on information as of January 28th

Maize Conditions for AMIS Countries



Maize crop conditions over main growing areas are based upon a combination of national and regional crop analyst inputs along with earth observation data. Crop condition information is based upon information as of January 28th. Where crops are in other than favourable conditions the climatic drivers responsible for those conditions are displayed. Crop Season Specific Maps can be found in Appendix 2.

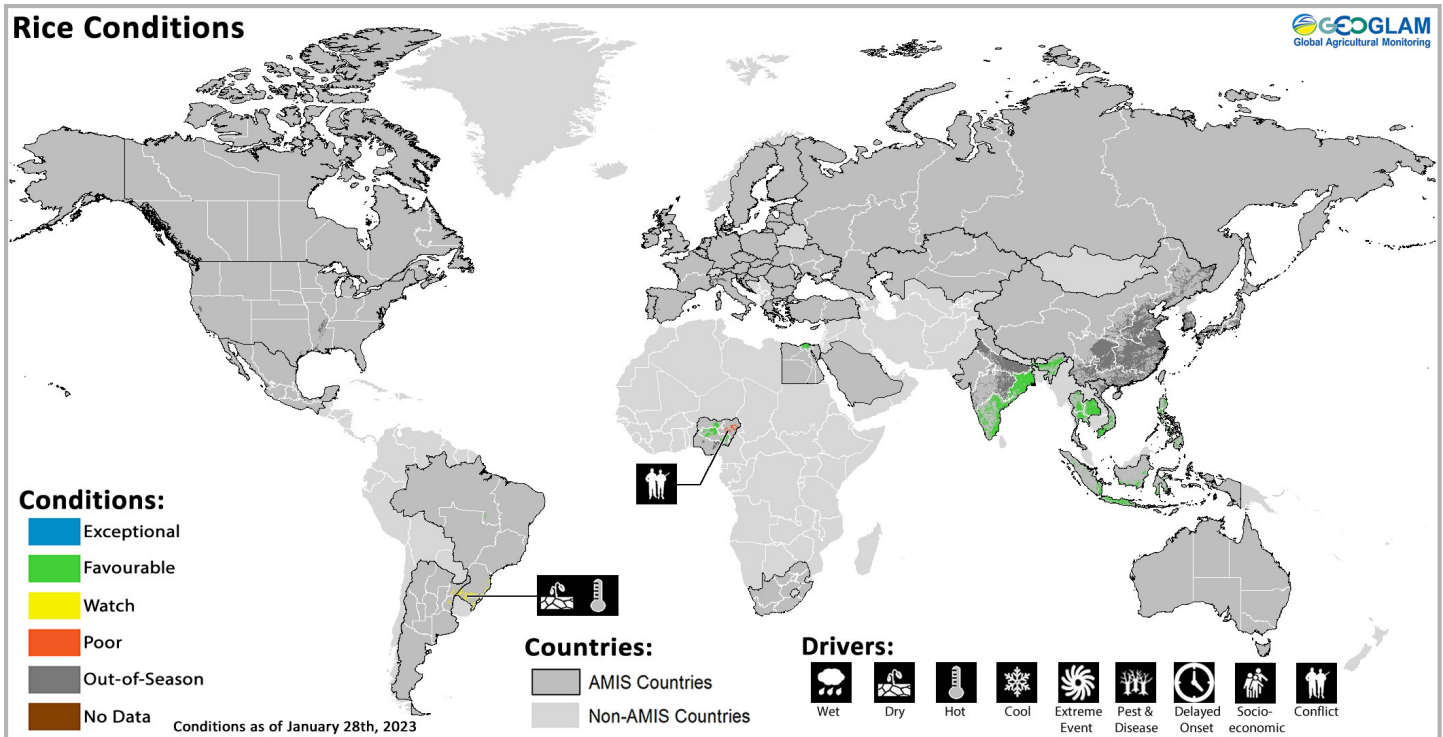
Maize: In **Mexico**, conditions are favourable as the harvesting of the spring-summer crop (larger season) is wrapping up and the sowing of the autumn-winter crop (smaller season) is beginning. In **India**, sowing of the Rabi crop is wrapping up under favourable conditions. In **Brazil**, harvesting is beginning for the spring-planted crop (smaller season) under favourable conditions, except in Rio Grande do Sul due to a lack of rain and high temperatures. Sowing is beginning for the summer-planted crop (larger season) under favourable conditions. In **Argentina**, conditions have worsened for the early-planted crop (typically larger season) due to the prolonged drought and high temperatures throughout December and January, which have occurred during the key reproductive stage. The late-planted crop (typically smaller season) will require rainfall over the next few weeks to avoid yield losses. In **South Africa**, conditions remain favourable despite dry January weather.



For detailed description of the pie chart please see box on page 6.

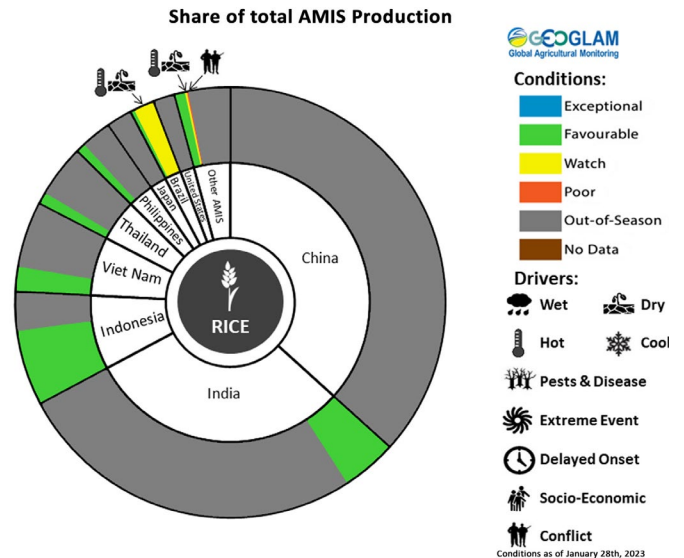
* Assessment based on information as of January 28th

Rice Conditions for AMIS Countries



Rice crop conditions over main growing areas are based upon a combination of national and regional crop analyst inputs along with earth observation data. Crop condition information is based upon information as of January 28th. Where crops are in other than favourable conditions the climatic drivers responsible for those conditions are displayed. Crop Season Specific Maps can be found in Appendix 2.

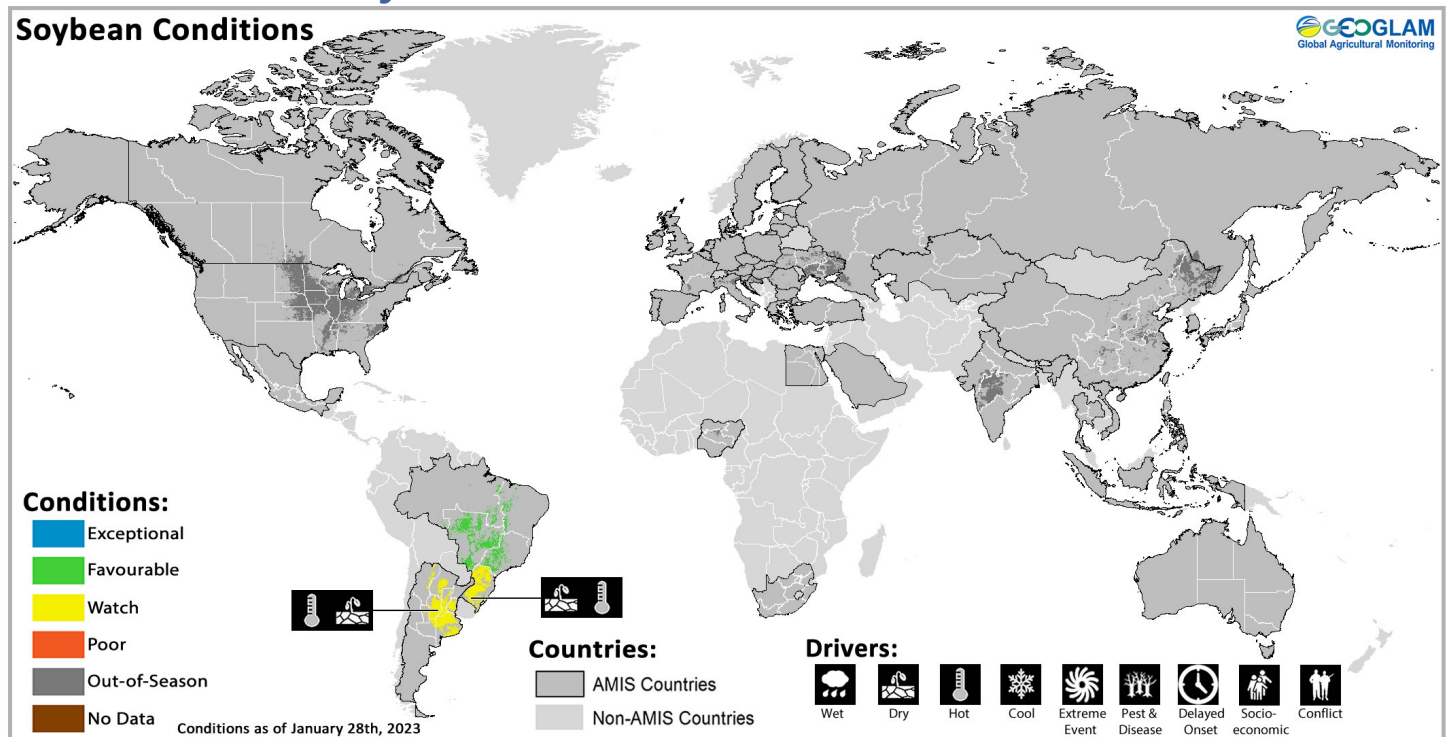
Rice: In **India**, transplanting of the Rabi crop in the eastern parts of the country is still in progress whereas, in the southern part, transplanting is wrapping up. In **Indonesia**, sowing of wet-season rice continues into the fourth month with an increase in total sown area compared to last year due to plentiful rainfall. Harvesting of earlier sown rice is beginning under favourable conditions. In **Viet Nam**, sowing of dry-season rice (winter-spring rice) is ongoing in the South at a faster pace than last year due to favourable weather. In **Thailand**, dry-season rice is in the tillering stage under favourable conditions. An increase in the total sown area compared to last year is expected due to enough irrigation water. In the **Philippines**, dry-season rice sown during November and December is in the tillering to the young panicle-forming stage under favourable conditions. In **Brazil**, conditions are mixed due to a lack of rain and high temperatures.



For detailed description of the pie chart please see box on page 6.

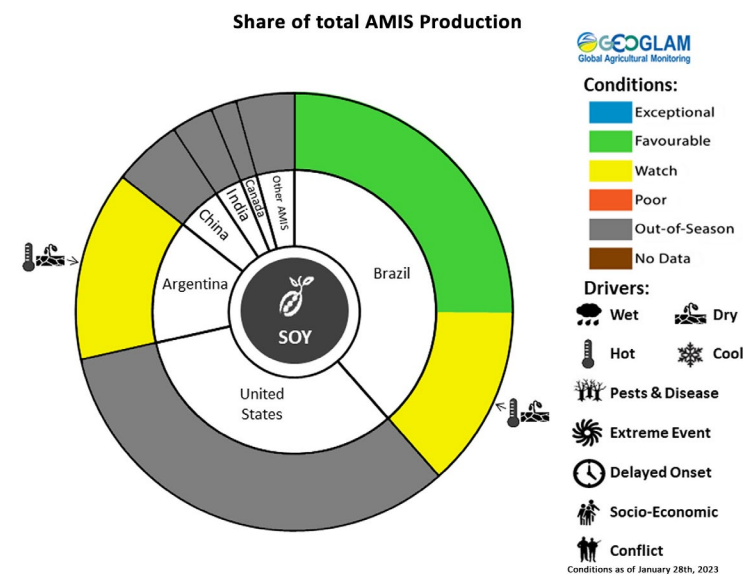
* Assessment based on information as of January 28th

Soybean Conditions for AMIS Countries



Soybean crop conditions over main growing areas are based upon a combination of national and regional crop analyst inputs along with earth observation data. Crop condition information is based upon information as of January 28th. Where crops are in other than favourable conditions the climatic drivers responsible for those conditions are displayed. Crop Season Specific Maps can be found in Appendix 2.

Soybeans: In **Brazil**, harvesting is beginning under generally favourable conditions except for in the southern region due to high temperatures and prolonged dryness. There is an increase in total sown area compared to last year. In **Argentina**, the early-planted crop (larger season) reached flowering during prolonged drought and hot conditions, which caused flowers and pods to drop, reducing yields. The late-planted crop (smaller season) has better prospects, but further rainfall and lower temperatures are needed to reverse yield reductions. The total sown area for both seasons is likely to have also been reduced as a result of a lack of rainfall during the sowing window.



For detailed description of the pie chart please see box below.

Information on crop conditions in non-AMIS countries can be found in the [GEOGLAM Crop Monitor for Early Warning](#), published February 2nd

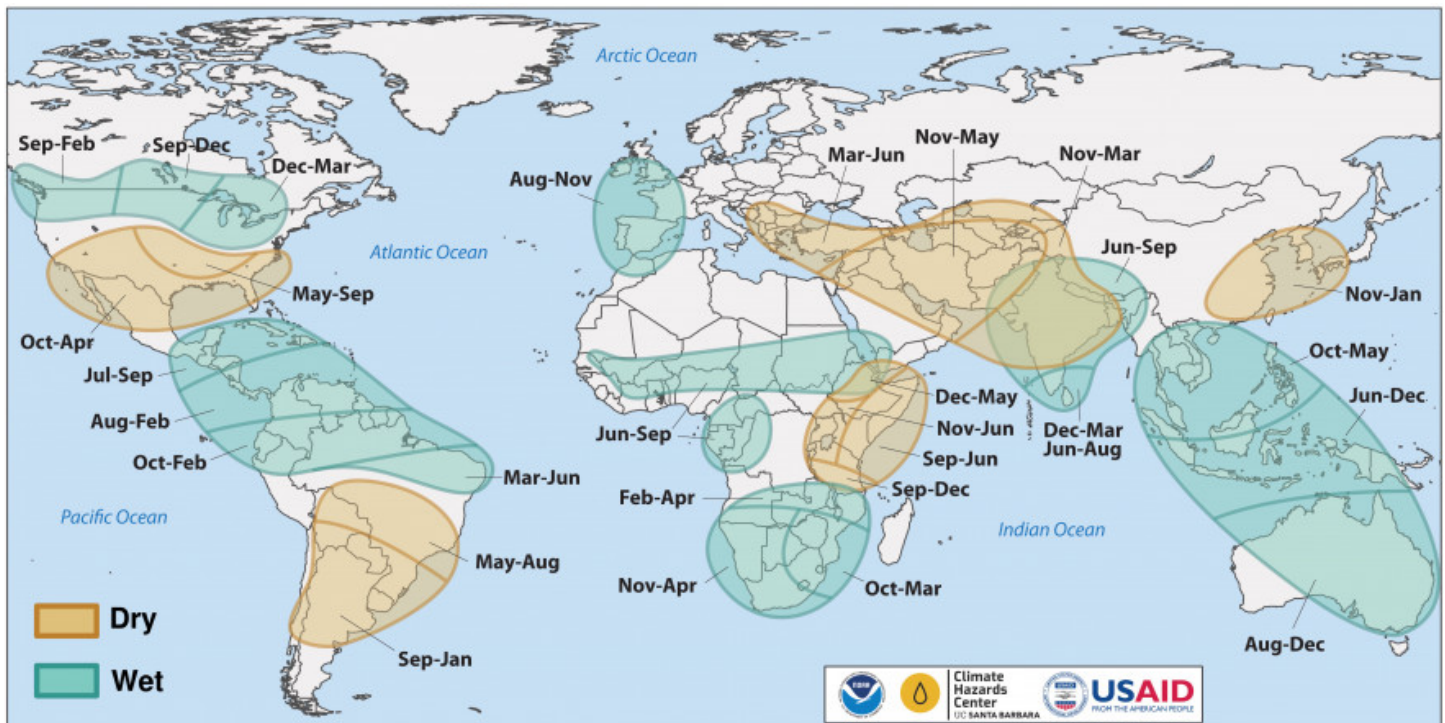
Pie chart description: Each slice represents a country's share of total AMIS production (5-year average). Main producing countries (representing 95 percent of production) are shown individually, with the remaining 5 percent grouped into the "Other AMIS Countries" category. The proportion within each national slice is coloured 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). When conditions are other than 'favourable', icons are added that provide information on the key climatic drivers affecting conditions.

Climate Influences: La Niña Advisory

The El Niño–Southern Oscillation (ENSO) is currently in the La Niña phase. A transition to a neutral ENSO state is likely, with a 73% chance of ENSO neutral conditions in February–March–April, according to the IRI/CPC. ENSO neutral conditions are expected through July, after which El Niño conditions may develop, with a 51% chance of El Niño in August–September–October. While long-range forecasts made at this time of year can be unreliable, El Niño events can have widespread, global impacts.

Seasonal forecasts indicate La Niña precipitation impacts may continue through the next several months. While a transition to ENSO-neutral is anticipated during this time, atmospheric responses to La Niña can linger. For eastern East Africa, where multi-year drought continues to severely impact food security, yet another below-normal rainy season is likely, based on forecast La Niña-like sea surface temperature gradients during spring.

Source: UCSB Climate Hazards Center

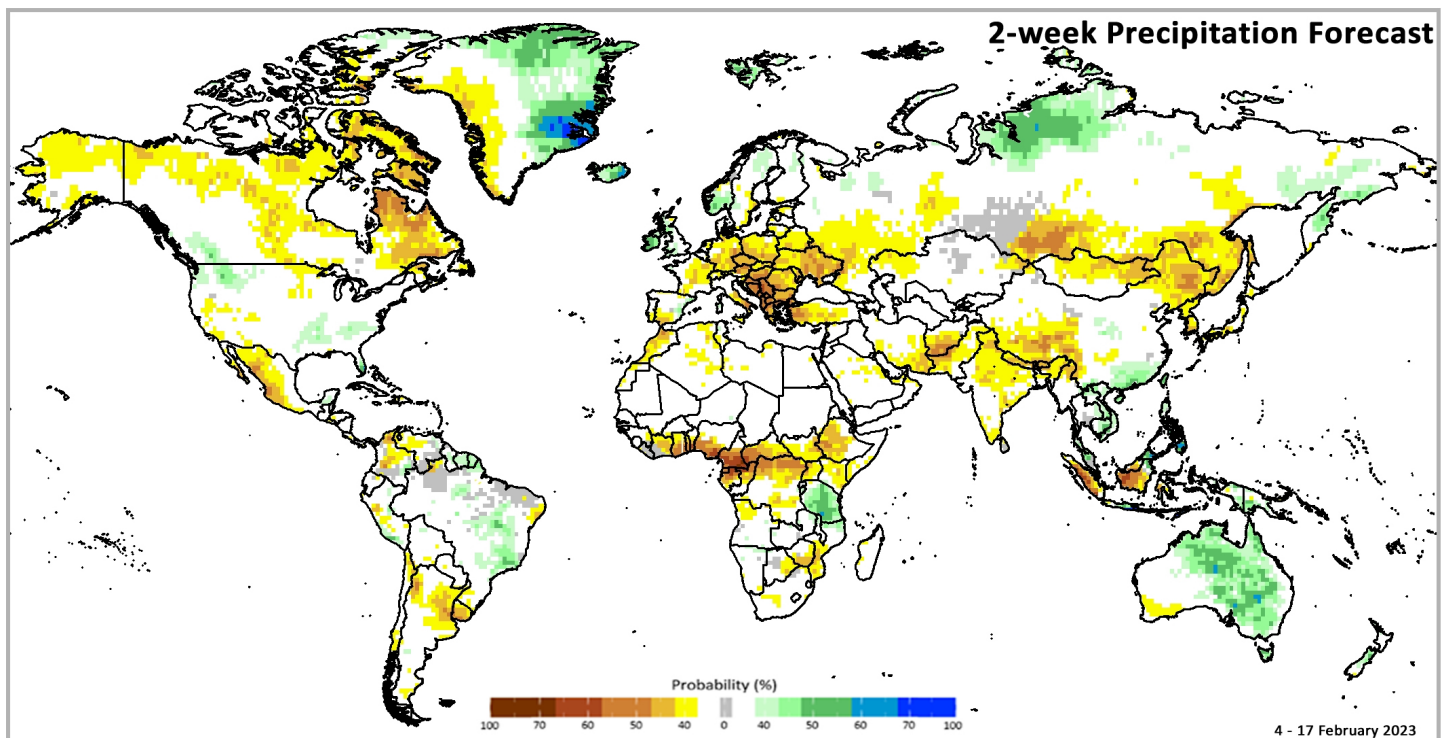


Location and timing of likely above- and below-average precipitation related to La Niña events. Based upon observed precipitation during 21 La Niña events since 1950, wet and dry correspond to a statistically significant increase in the frequency of precipitation in the upper and lower thirds of historical values, respectively. Statistical significance at the 95% level is based on the resampling of precipitation during neutral El Niño–Southern Oscillation conditions. Source: [FEWS NET & NOAA & CHC](#)

Global Two-week Forecast of Areas with Above or Below-Average Precipitation

The two-week forecast (Figure 1) indicates a likelihood of above-average rainfall over the Pacific Northwest and southeast of the US, southeast Brazil, Ireland, Scotland, southern Norway, Tanzania, northern Mozambique, southern China, Laos, Cambodia, Viet Nam, the Philippines, northern Malaysia, southern Indonesia, central and eastern Australia, and central New Zealand.

There is also a likelihood of below-average rainfall over the central Prairies and eastern Canada, western Mexico, central Columbia, Uruguay, northern Argentina, northern Chile, southern Portugal, southern Spain, central France, southern Italy, Switzerland, Germany, Poland, Czechia, Austria, Slovakia, Hungary, Slovenia, Croatia, Bosnia and Herzegovina, Serbia, Romania, Montenegro, Kosovo, Albania, North Macedonia, Bulgaria, Greece, western and central Türkiye, Ukraine, Moldova, Belarus, central and eastern Russian Federation, northern Morocco, Côte d'Ivoire, Ghana, Togo, southern Benin, southern Nigeria, southern Cameroon, Equatorial Guinea, Gabon, the northern Republic of Congo, the Central African Republic, the northern Democratic Republic of Congo, South Sudan, Ethiopia, Uganda, Kenya, southern Zimbabwe, central Mozambique, southern Iran, southern Afghanistan, Pakistan, northern India, southwest and northeast China, Nepal, Bhutan, northern Myanmar, Mongolia, the Democratic People's Republic of Korea, the Republic of Korea, and Indonesia.



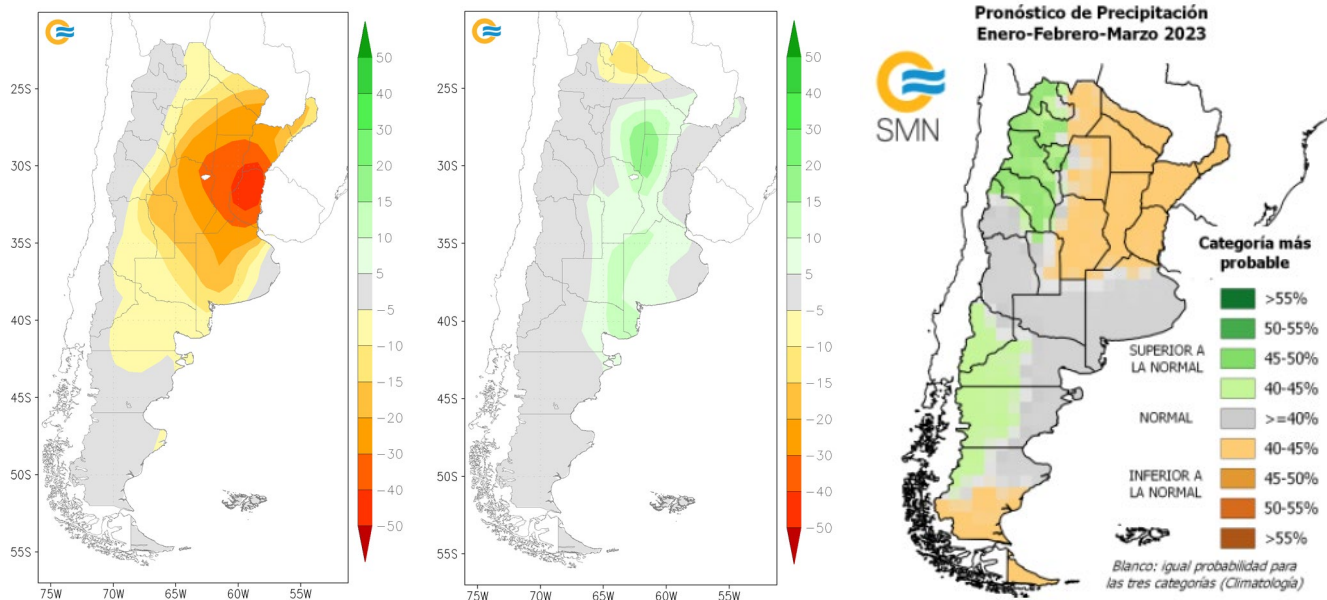
IRI SubX Precipitation Biweekly Probability Forecast for 4 – 17 February 2023, issued on 27 January 2023. The forecast is based on statistically calibrated tercile category forecasts from three SubX models. Source: [IRI Subseasonal Forecasts Maproom](#)

Argentina Outlook

The February 1 – 7th precipitation forecast anomaly (left) indicates likely below-average rainfall over the main agricultural areas, with the highest deficits centered over Entre Rios and Santa Fe. During the same period, temperatures are likely to be above-average over the northern agricultural areas. The February 8 – 14th precipitation forecast anomaly (center) shows likely above-average precipitation over parts of Chaco, Santiago del Estero, Santa Fe, western Buenos Aires, and eastern La Pampa. During the same period, temperatures are likely to be just above-average over most of the main agricultural areas.

The long-term January-February-March 2023 forecast (right) shows likely below-average precipitation across much of the main agricultural areas except for Buenos Aires and La Pampa. During the same period, temperatures are likely to be above-average across most of the main agricultural areas.

Precipitation Anomaly Forecasts



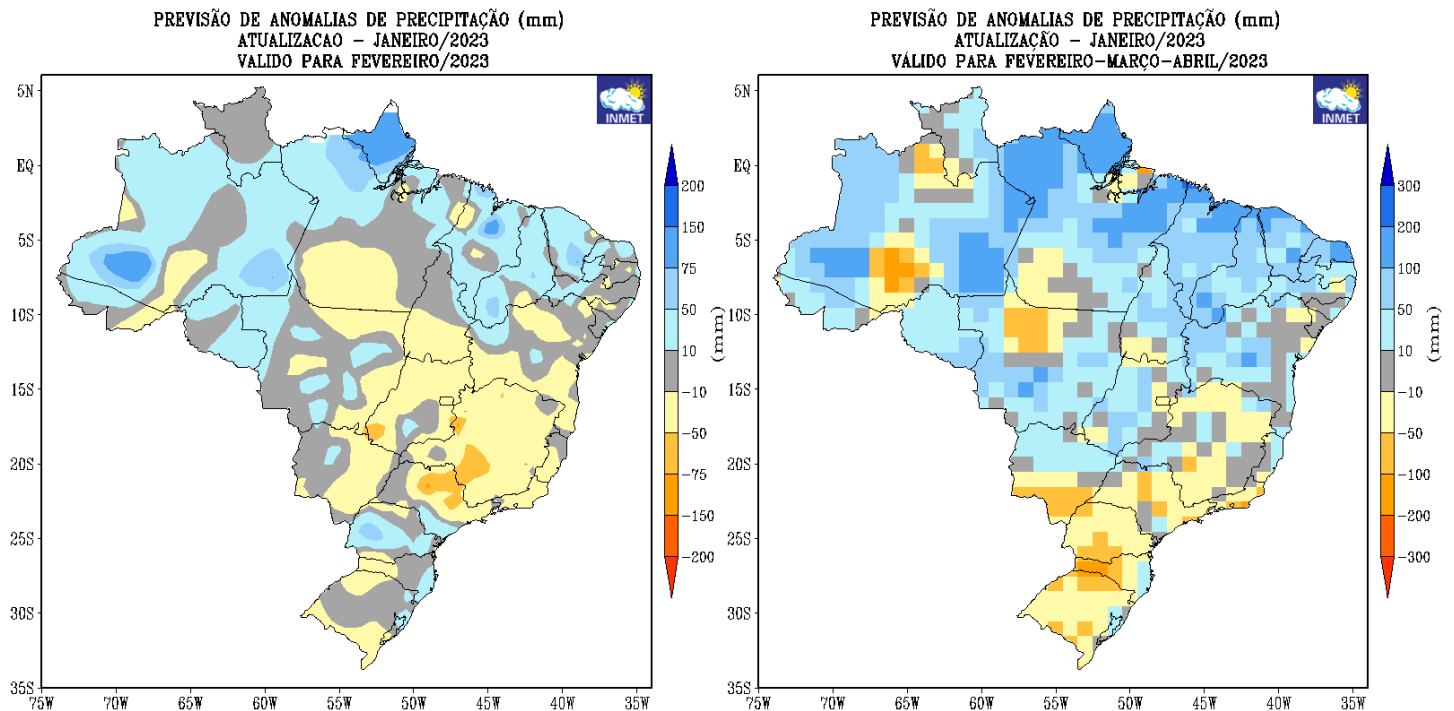
Left: February 1 – 7, 2023 forecast precipitation anomaly in mm. **Center** February 8 – 14, 2023 forecast precipitation anomaly in mm. Images from the [National Meteorological Service of Argentina](#). **Right:** January-February-March 2023 forecast rainfall anomaly. Image from the [National Meteorological Service of Argentina](#).

Brazil Outlook

The February precipitation anomaly forecast (left) indicates possible below-average precipitation across the Southeast and parts of the Central-West regions, while possible above-average precipitation in the Northeast and North regions. During the same period, temperatures are likely to be above-average across the Southeast and parts of the South regions of the country, increasing the water demand for crops.

The long-term February-March-April 2023 forecast (right) indicates likely below-average precipitation across the South region and parts of the Southeast and Central-West regions. During the same period, temperatures are likely to be slightly above-average across the Southeast region and parts of the south and Central-West regions.

February and 3-month Precipitation Forecast Anomalies



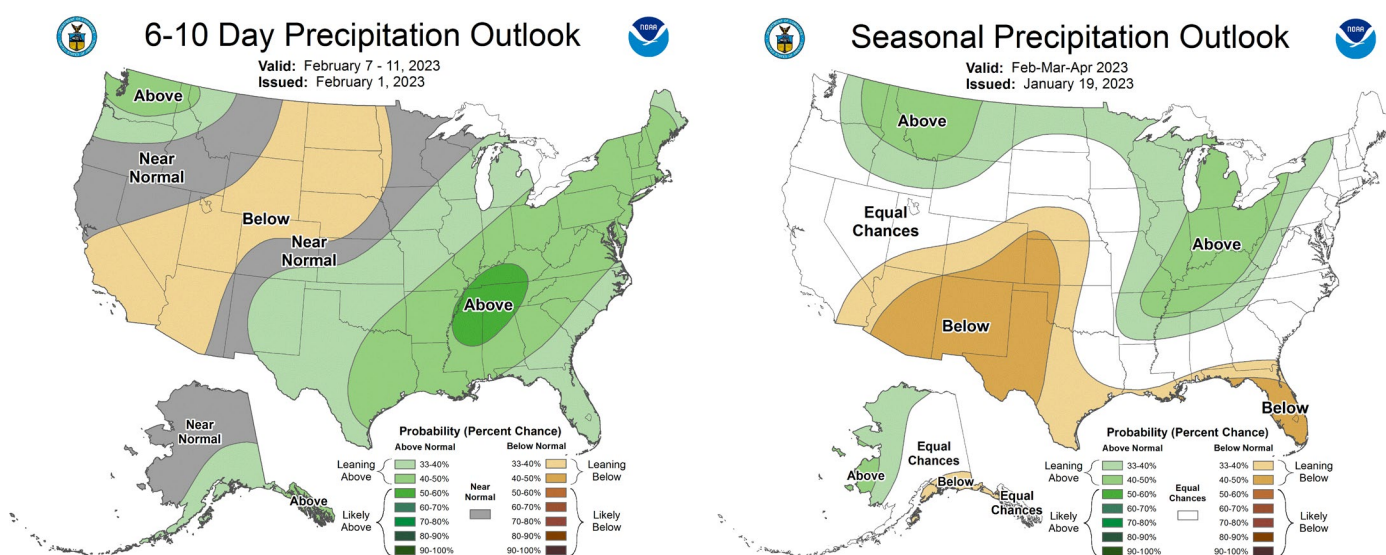
Left: February 2023 precipitation anomaly forecast, issued in January 2023. **Right:** February-March-April 2023 precipitation anomaly forecast, issued in January 2023. Images from the [National Institute of Meteorology](https://www.inmet.gov.br/).

United States Outlook

The February 7 – 11th outlook indicates there is the possibility of above-average precipitation across most of the eastern continental US, with the highest likelihood over Kentucky, Tennessee, northern Mississippi, and northern Alabama. Additionally, there is the possibility of above-average precipitation over Washington state. There is possible below-average precipitation in the northern Plains and the Southwest. During the same time, temperatures are likely to be above-average across the eastern US, while below-average across the Southwest.

For the long-term seasonal February-March-April (FMA) 2023 outlook, below-average precipitation is possible across the Southwest and Southern Great Plains reaching up into the Central Great Plains, plus over Florida. Conversely, above-average precipitation is likely in the Pacific Northwest, the Great Lakes region, and the Ohio River Valley region. During the same period, temperatures are likely to be above-average across the south and extend up the entire East Coast. Temperatures are also likely to be below-average across the northern Great Plains to the Pacific Northwest.

Short-term and the February-March-April 2023 Precipitation Outlooks



The official 6 - 10 precipitation outlook issued on 1 February 2023 and the extended February-March-April outlook issued on 19 January 2023, from NOAA/National Weather Service, National Centers for Environmental Predictions, and Climate Prediction Center. Images from <https://www.cpc.ncep.noaa.gov/products/forecasts/>.

Source: NOAA Climate Prediction Center

* Assessment based on information as of January 28th

Appendix 1: Terminology & Definitions

Crop Conditions:

Exceptional: Conditions are much better than average* at the 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 more than 5% below average. This is only used when conditions are not likely to be able to recover, and an impact on production is likely.

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.

Conditions:

	Exceptional
	Favourable
	Watch
	Poor
	Out-of-Season
	No Data

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: Wetter than average (includes water logging and floods).

Dry: Drier than average.

Hot: Hotter than average.

Cool: Cooler than average or risk of frost damage.

Extreme Events: Catch-all for all other climate risks (i.e., hurricane, typhoon, frost, hail, winter kill, wind damage, etc.). When this category is used the analyst will also specify the type of extreme event in the text.

Delayed-Onset: Late start of the season

	Wet
	Dry
	Hot
	Cool
	Extreme Event
	Delayed-Onset

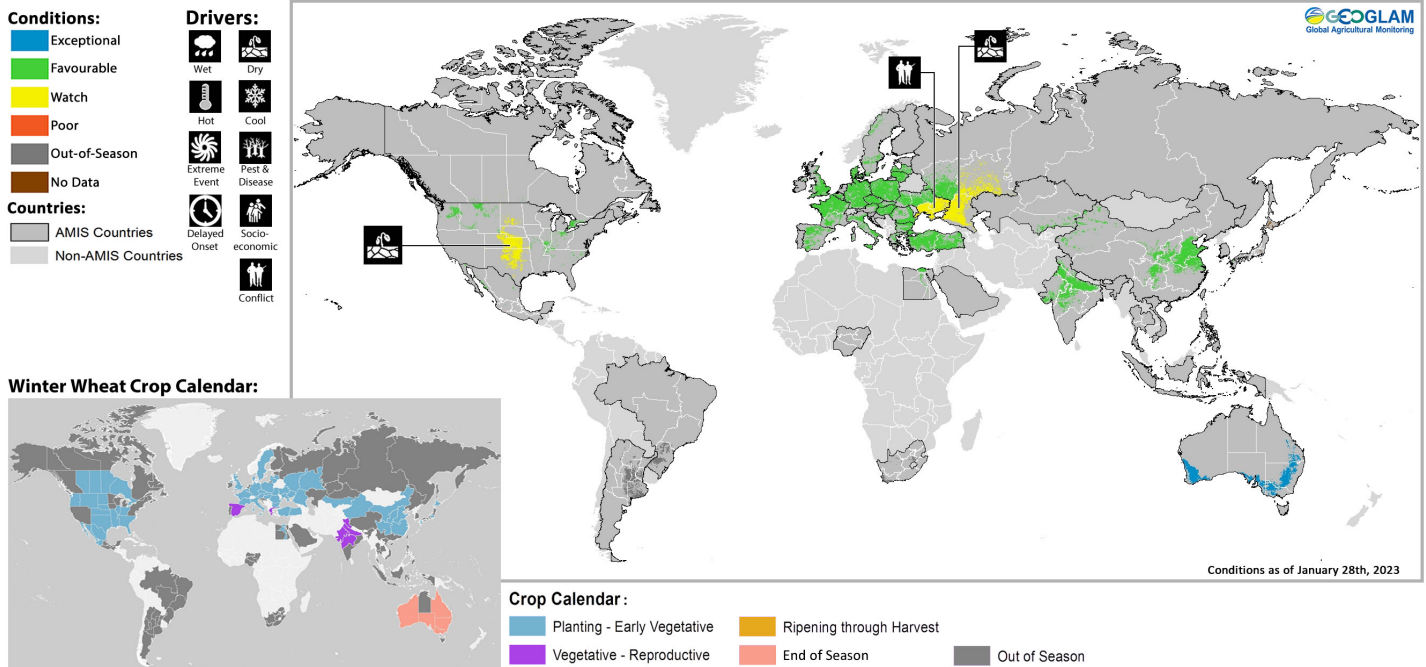
Crop Season Nomenclature:

In countries that contain multiple cropping seasons for the same crop, the following chart identifies the national season name associated with each crop season within the Crop Monitor. Within the Crop Monitor for AMIS countries, the larger producing season (most recent 5 years) has been assigned to the first season.

Crop Season Nomenclature				
Country	Crop	Season 1 Name	Season 2 Name	Season 3 Name
Argentina	Soybean	Spring-planted	Summer-planted	
Brazil	Maize	Summer-planted (larger producing season)	Spring-planted (smaller producing season)	
Canada	Wheat	Winter-planted	Spring-planted	
China	Maize	Spring-planted	Summer-planted	
China	Rice	Single-season	Late-season	Early-season
China	Wheat	Winter-planted	Spring-planted	
Egypt	Rice	Summer-planted	Nili season (Nile Flood)	
India	Maize	Kharif	Rabi	
India	Rice	Kharif	Rabi	
Indonesia	Rice	Wet-season	Dry-season	
Mexico	Maize	Spring-planted	Autumn-planted	
Nigeria	Maize	Main-season	Short-season	
Nigeria	Rice	Main-season	Off-season	
Philippines	Rice	Wet-season	Dry-season	
Russian Federation	Wheat	Winter-planted	Spring-planted	
Thailand	Rice	Wet-season	Dry-season	
United States	Wheat	Winter-planted	Spring-planted	
Viet Nam	Rice	Wet-season	Dry-season	

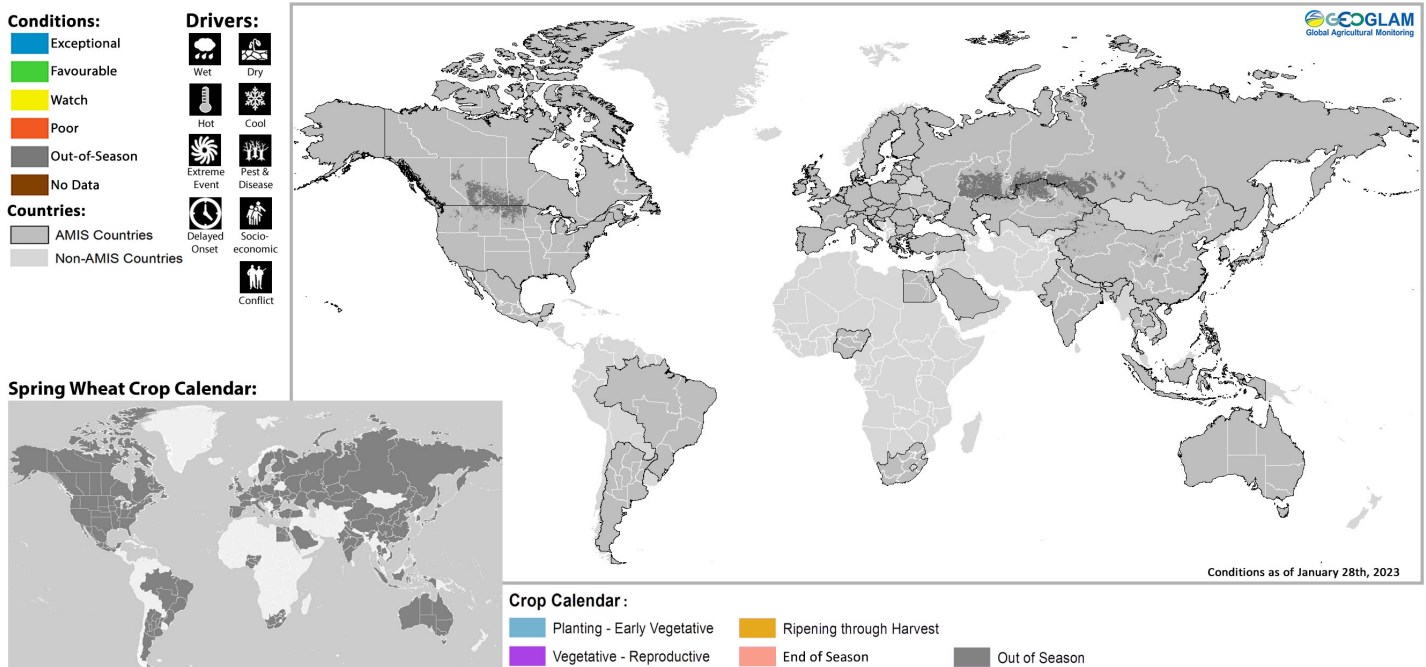
Appendix 2: Crop Season-Specific Maps

Winter Planted Wheat Conditions for AMIS Countries



Winter wheat crop conditions over main growing areas are based upon a combination of national and regional crop analyst inputs along with earth observation data. Crop condition information is based upon information as of January 28th. Where crops are in less than favourable conditions the climatic drivers responsible for those conditions are displayed. The crop calendar is provided as a point of reference to provide information on what part of the life cycle the crops are currently in for each area.

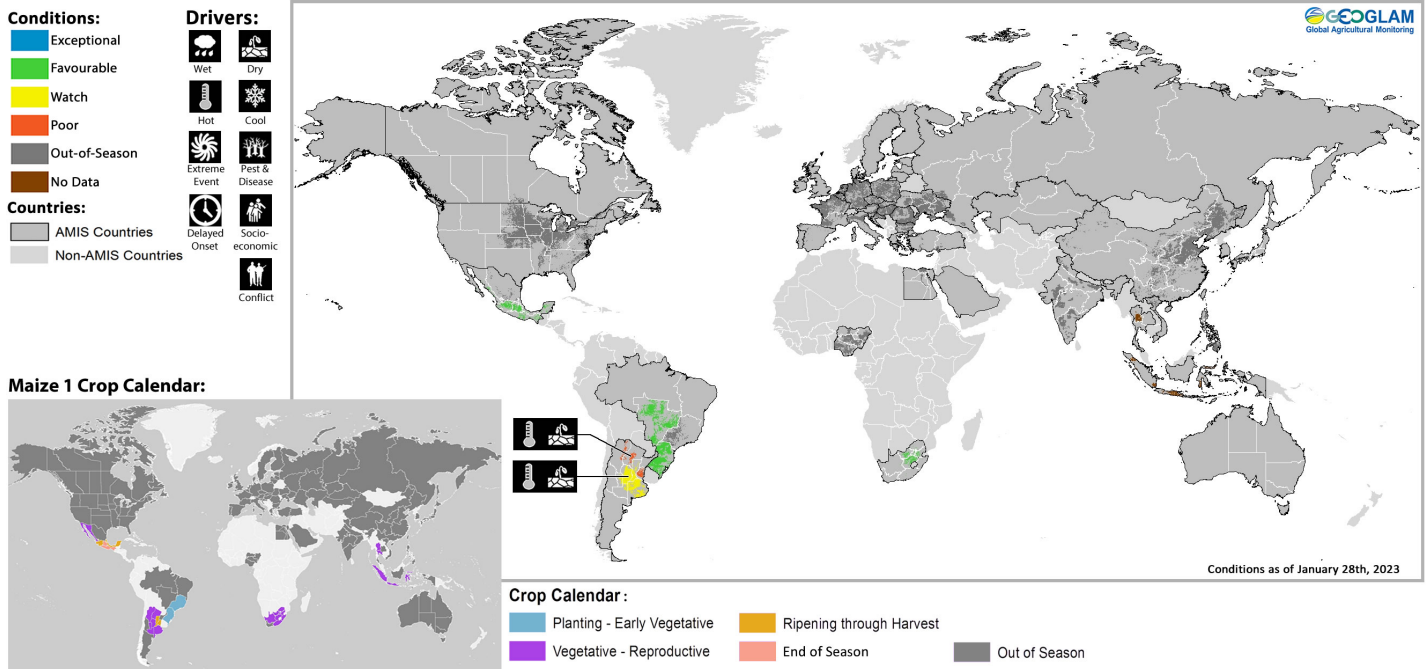
Spring Planted Wheat Conditions for AMIS Countries



Spring wheat crop conditions over main growing areas are based upon a combination of national and regional crop analyst inputs along with earth observation data. Crop condition information is based upon information as of January 28th. Where crops are in less than favourable conditions the climatic drivers responsible for those conditions are displayed. The crop calendar is provided as a point of reference to provide information on what part of the life cycle the crops are currently in for each area.

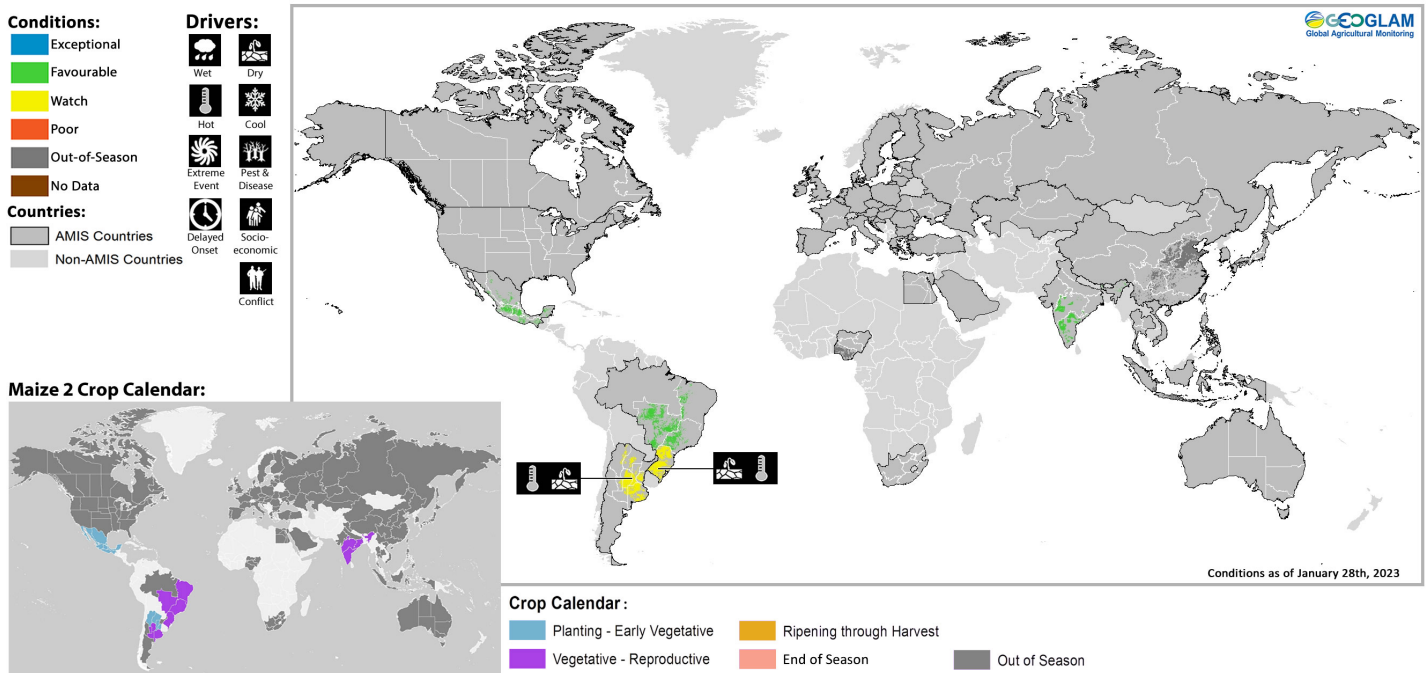
* Assessment based on information as of January 28th

Maize 1 Conditions for AMIS Countries



Maize 1 crop conditions over main growing areas are based upon a combination of national and regional crop analyst inputs along with earth observation data. Crop condition information is based upon information as of January 28th. Where crops are in less than favourable conditions the climatic drivers responsible for those conditions are displayed. The crop calendar is provided as a point of reference to provide information on what part of the life cycle the crops are currently in for each area.

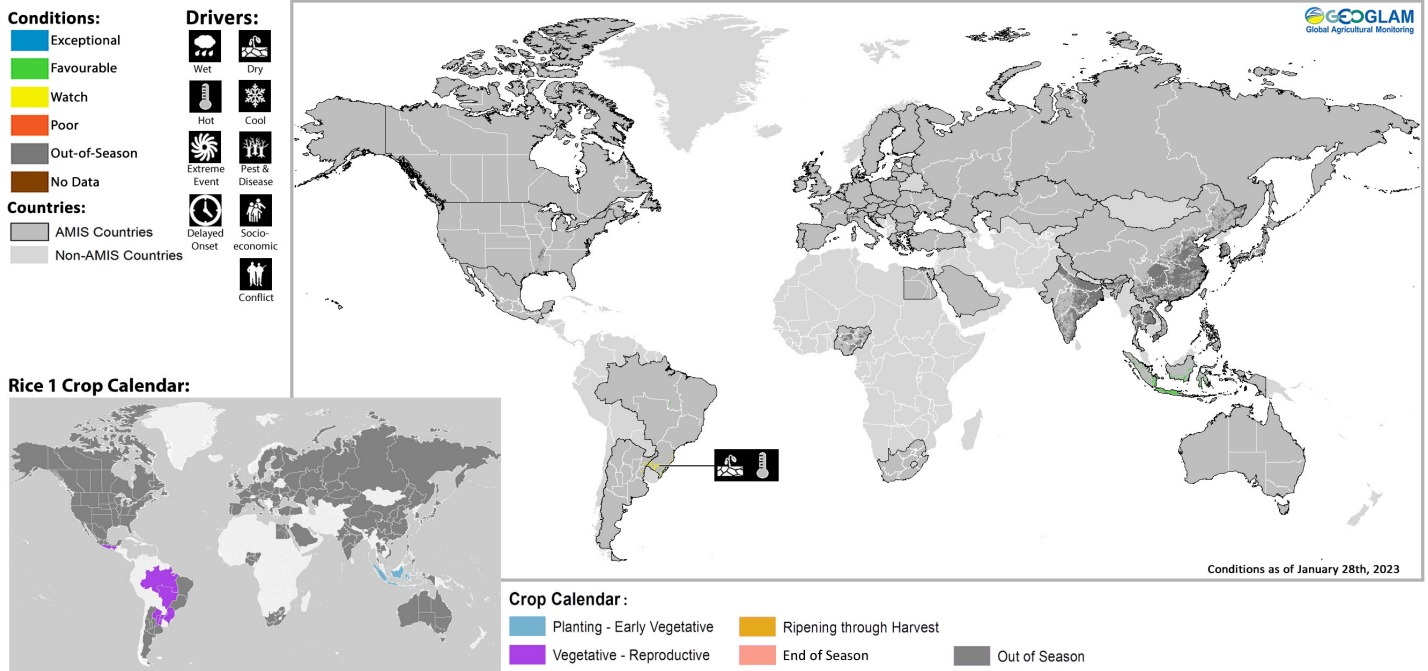
Maize 2 Conditions for AMIS Countries



Maize 2 crop conditions over main growing areas are based upon a combination of national and regional crop analyst inputs along with earth observation data. Crop condition information is based upon information as of January 28th. Where crops are in less than favourable conditions the climatic drivers responsible for those conditions are displayed. The crop calendar is provided as a point of reference to provide information on what part of the life cycle the crops are currently in for each area.

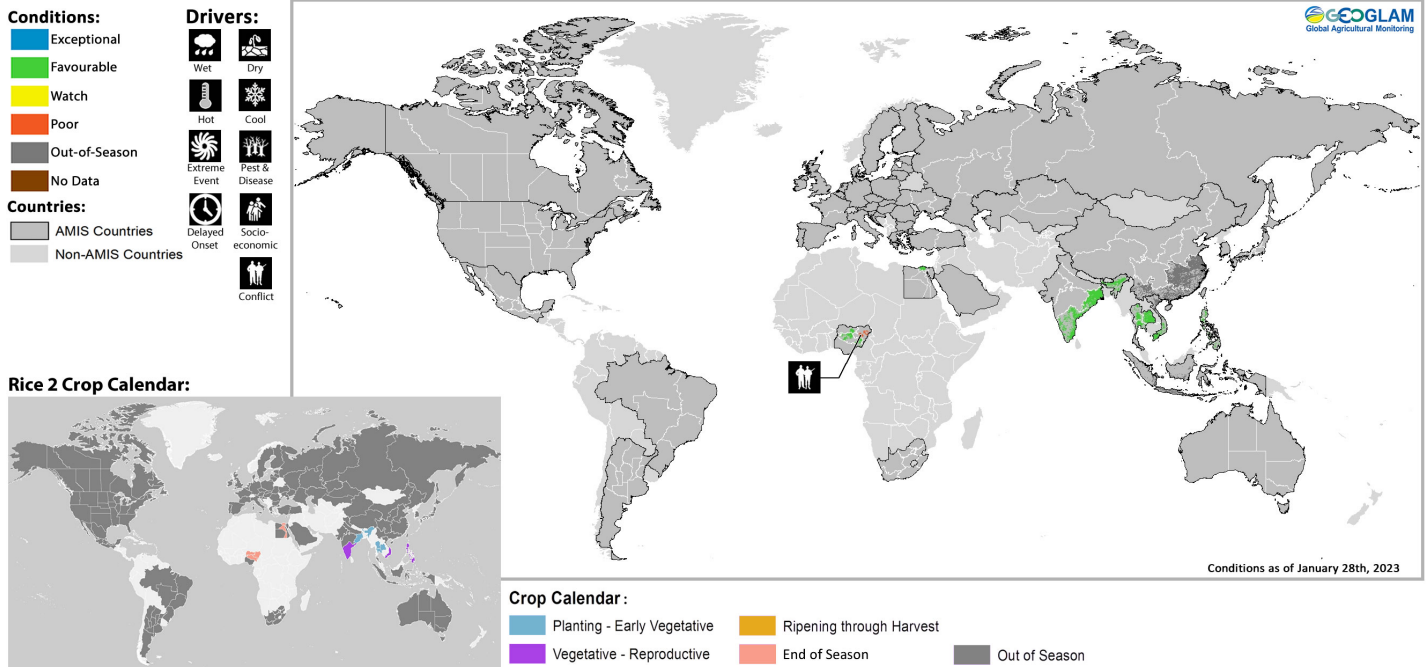
* Assessment based on information as of January 28th

Rice 1 Conditions for AMIS Countries



Rice 1 crop conditions over main growing areas are based upon a combination of national and regional crop analyst inputs along with earth observation data. Crop condition information is based upon information as of January 28th. Where crops are in less than favourable conditions the climatic drivers responsible for those conditions are displayed. The crop calendar is provided as a point of reference to provide information on what part of the life cycle the crops are currently in for each area.

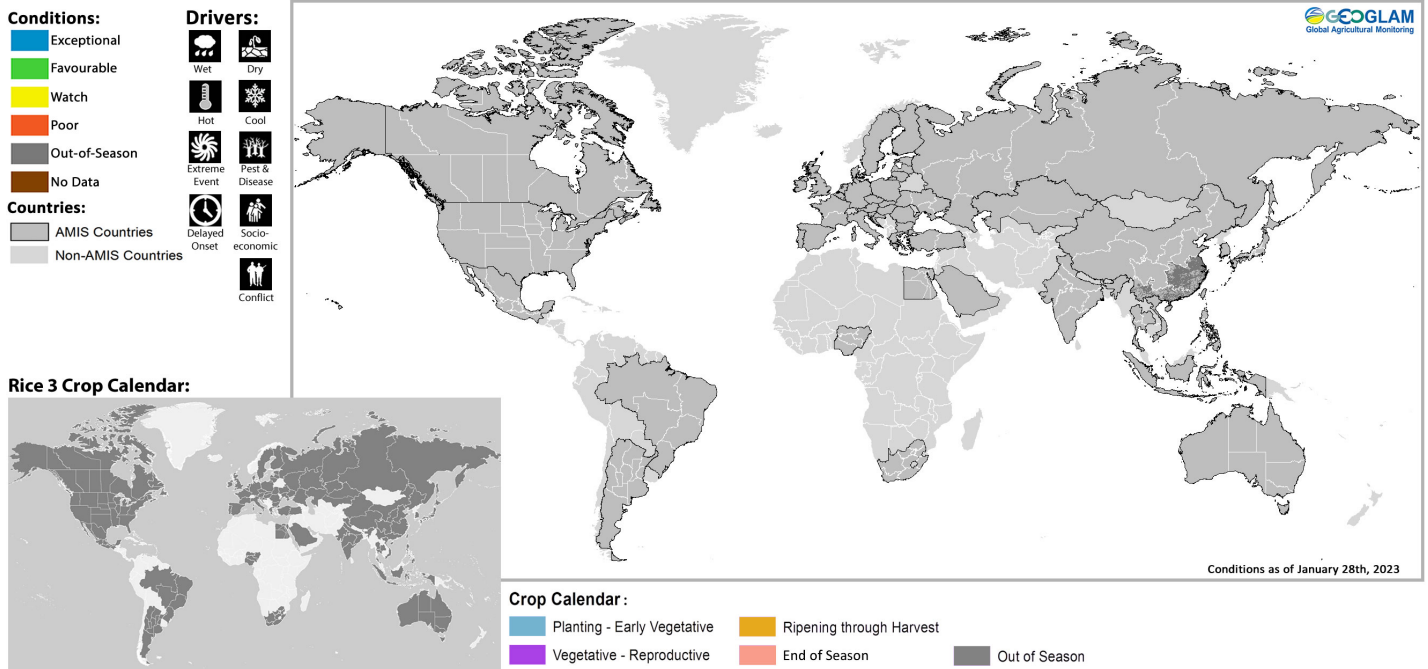
Rice 2 Conditions for AMIS Countries



Rice 2 crop conditions over main growing areas are based upon a combination of national and regional crop analyst inputs along with earth observation data. Crop condition information is based upon information as of January 28th. Where crops are in less than favourable conditions the climatic drivers responsible for those conditions are displayed. The crop calendar is provided as a point of reference to provide information on what part of the life cycle the crops are currently in for each area.

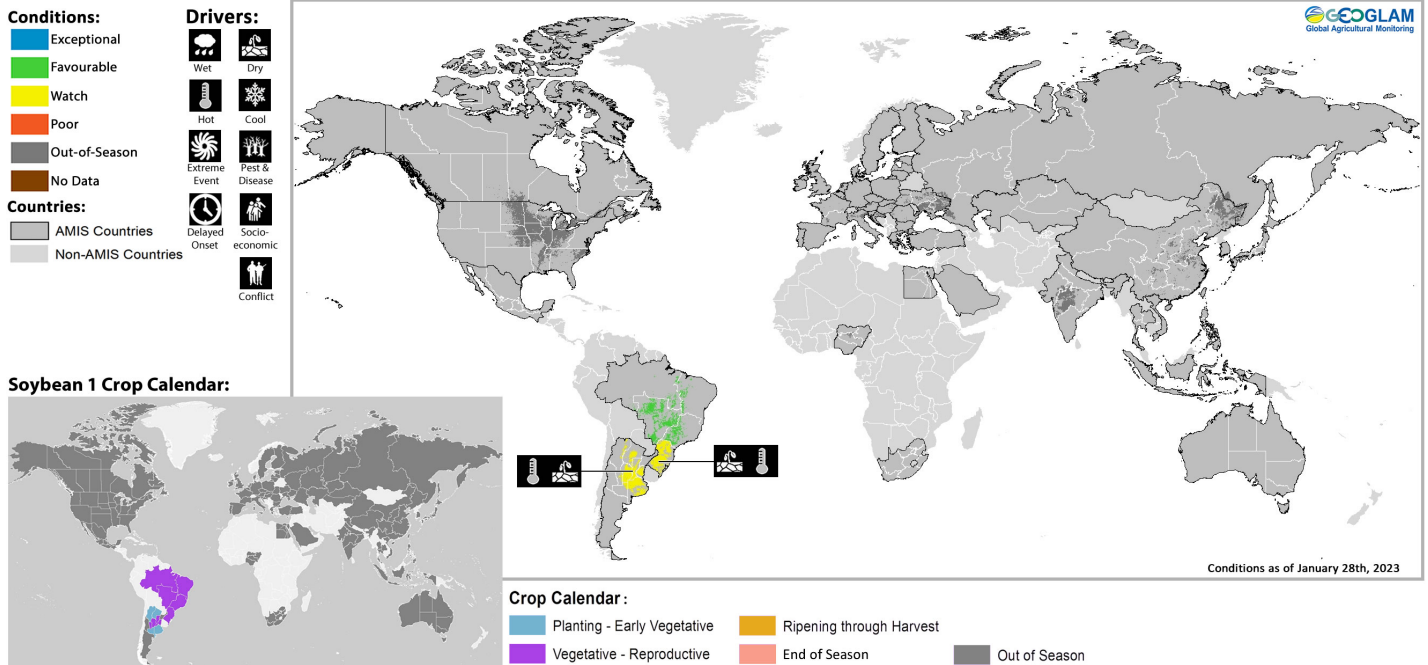
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Rice 3 Conditions for AMIS Countries



Rice 3 crop conditions over main growing areas are based upon a combination of national and regional crop analyst inputs along with earth observation data. Crop condition information is based upon information as of January 28th. Where crops are in less than favourable conditions the climatic drivers responsible for those conditions are displayed. The crop calendar is provided as a point of reference to provide information on what part of the life cycle the crops are currently in for each area.

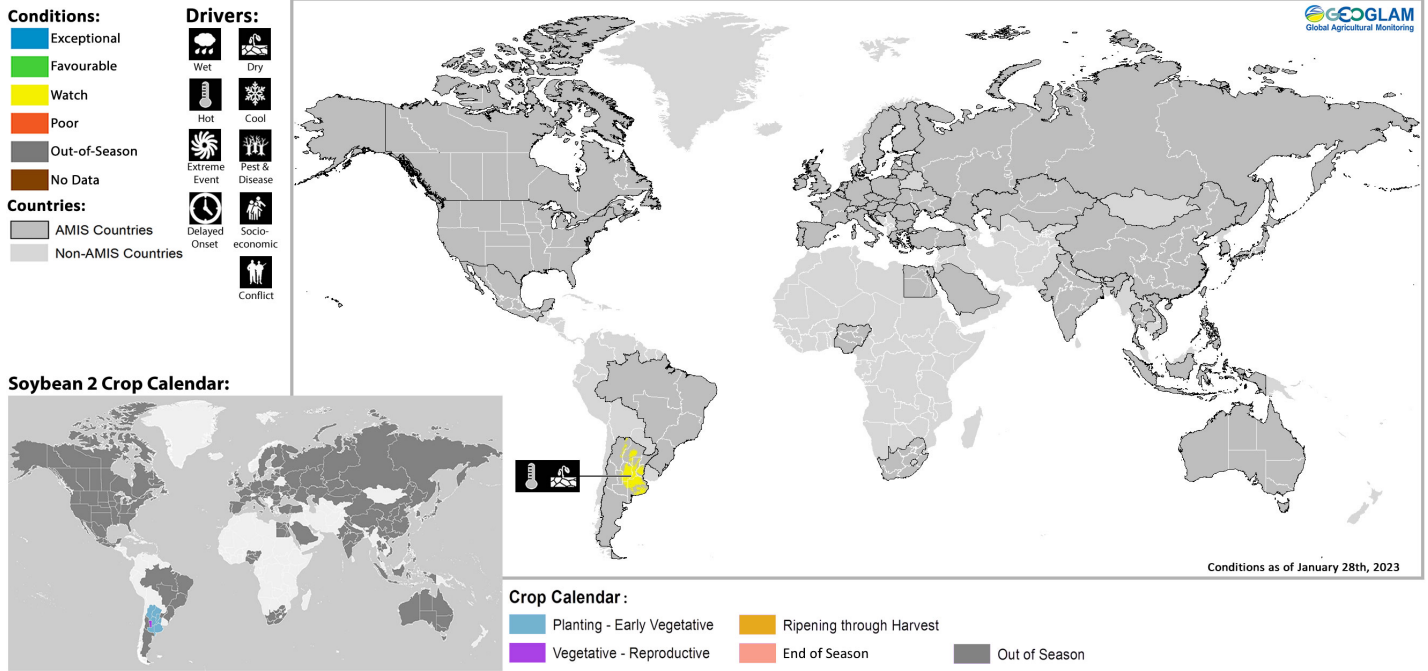
Soybean 1 Conditions for AMIS Countries



Soybean 1 crop conditions over main growing areas are based upon a combination of national and regional crop analyst inputs along with earth observation data. Crop condition information is based upon information as of January 28th. Where crops are in less than favourable conditions the climatic drivers responsible for those conditions are displayed. The crop calendar is provided as a point of reference to provide information on what part of the life cycle the crops are currently in for each area.

* Assessment based on information as of January 28th

Soybean 2 Conditions for AMIS Countries



Soybean 2 crop conditions over main growing areas are based upon a combination of national and regional crop analyst inputs along with earth observation data. Crop condition information is based upon information as of January 28th. Where crops are in less than favourable conditions the climatic drivers responsible for those conditions are displayed. The crop calendar is provided as a point of reference to provide information on what part of the life cycle the crops are currently in for each area.

* Assessment based on information as of January 28th



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Climatic Influences by Climate Hazards Center of UC Santa Barbara

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

Photo courtesy of Brian Barker

<https://cropmonitor.org/>

[@GEOCropMonitor](#)

Sources & Disclaimer

Sources and Disclaimers: The Crop Monitor assessment is conducted by GEOGLAM with inputs from the following partners (in alphabetical order): Argentina (Buenos Aires Grains Exchange, MAGyP), Asia Rice Countries (AFSIS, ASEAN+3 & Asia RiCE), Australia (ABARES & CSIRO), Brazil (CONAB & INPE), Canada (AAFC), China (CAS), EU (EC JRC MARS), Gro Intelligence, India (NCFC), Indonesia (LAPAN & MOA), International (CIMMYT, FAO GIEWS, IFPRI & IRRI), Japan (JAXA, MAFF), Mexico (SIAP), Russian Federation (IKI), South Africa (ARC & CSIR & GeoTerraImage & SANSA), Thailand (GISTDA & OAE), Ukraine (NASU-NSAU & UHMC), USA (NASA, UMD, USGS – FEWS NET, USDA (FAS, NASS)), Viet Nam (VAST & VIMHE-MARD). The findings and conclusions in this joint multiagency report are consensual statements from the GEOGLAM experts, and do not necessarily reflect those of the individual agencies represented by these experts.

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