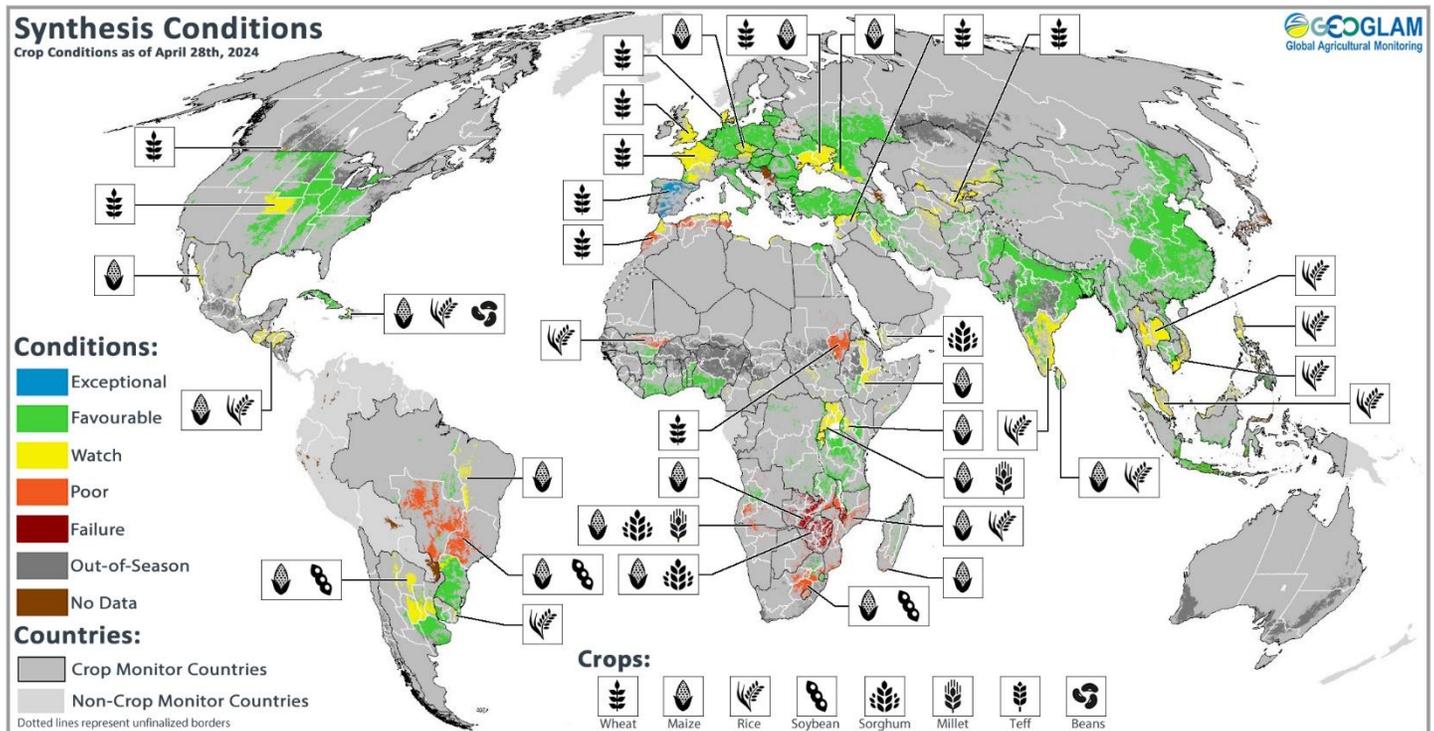


GEOGLAM Global Crop Monitor

Synthesized from the Crop Monitor for AMIS, the Crop Monitor for Early Warning, and direct submissions from individual countries.



Crop condition map synthesizing information for all Crop Monitor 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, and national and regional experts. Regions that are in other than favourable conditions are labelled on the map with a symbol representing the crop(s) affected.

	Wheat	Maize	Rice	Soybean	Legend:
Current Conditions					Positive
Compared to last month					Better
Compared to last year					Similar
					Negative
					Worse

See Appendix I for detailed methodology description

Global Crop Overview

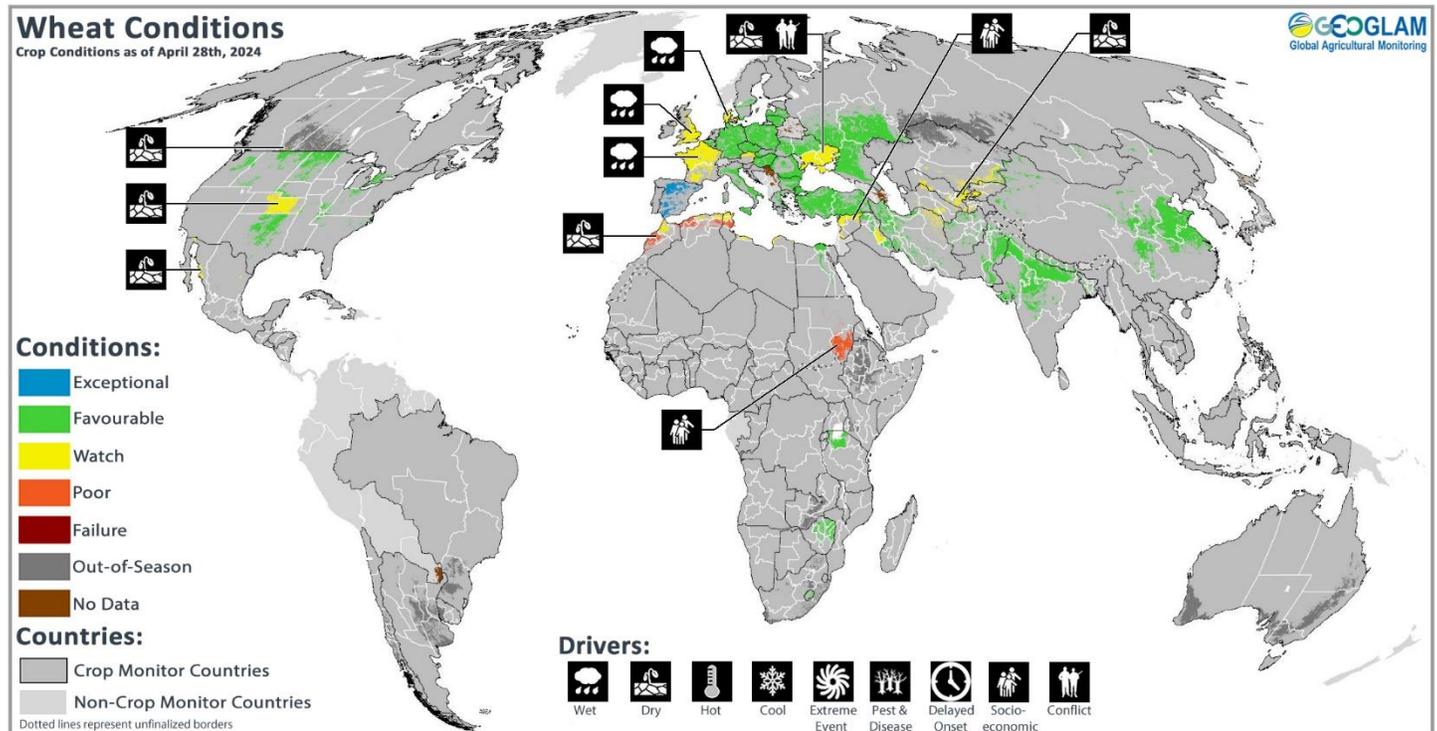
Global crop conditions at the end of April are favourable for wheat and maize, while mixed for rice and soybeans. For **wheat**, sowing of spring wheat is continuing as trouble spots for winter wheat continue in Central Asia and parts of Europe. For **maize**, areas of concern remain in South America, Southern Africa, and East Africa as sowing speeds up in the Northern Hemisphere. For **rice**, dry conditions are a concern in southern India and northern Southeast Asia. For **soybeans**, hot and dry weather has negatively impacted crops in Brazil, northern Argentina, and South Africa. The remaining crops are covered in the [CM4EW](#) publication.

Global Climate Influences

The El Niño event has continued to weaken, and neutral ENSO conditions are likely by April to June (85% chance). A quick shift to persistent La Niña conditions is anticipated. The CPC/IRI predicts a 73% chance of La Niña by July to September 2024, and chances remain high throughout the forecast period. For further details, see [page 6](#).

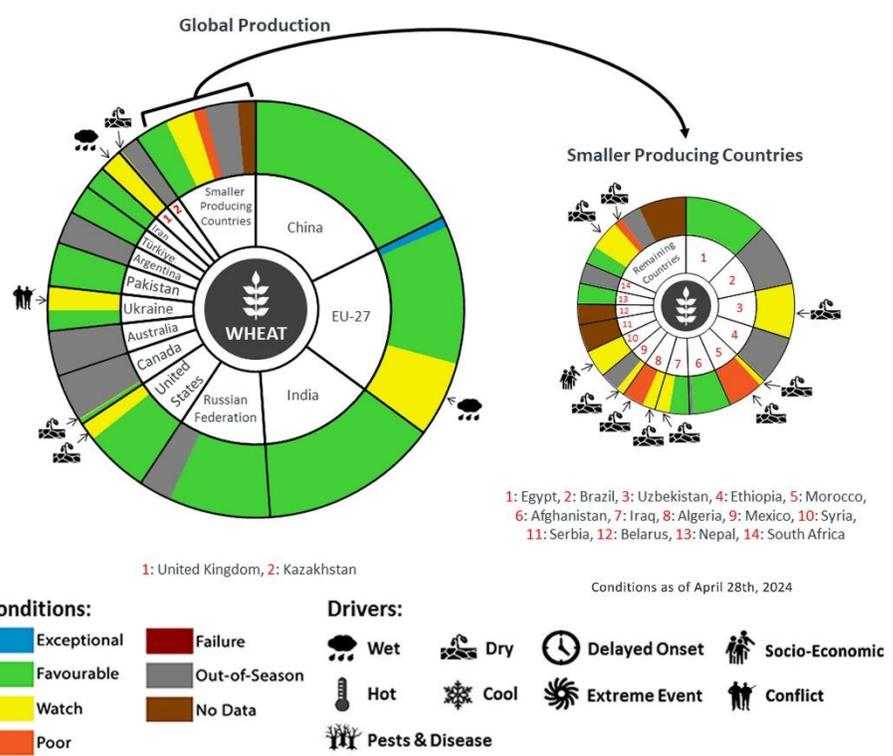
For further analysis of the historical impacts of La Niña events on crop yields, please see the write-up in the [CM4AMIS](#) report.

WHEAT

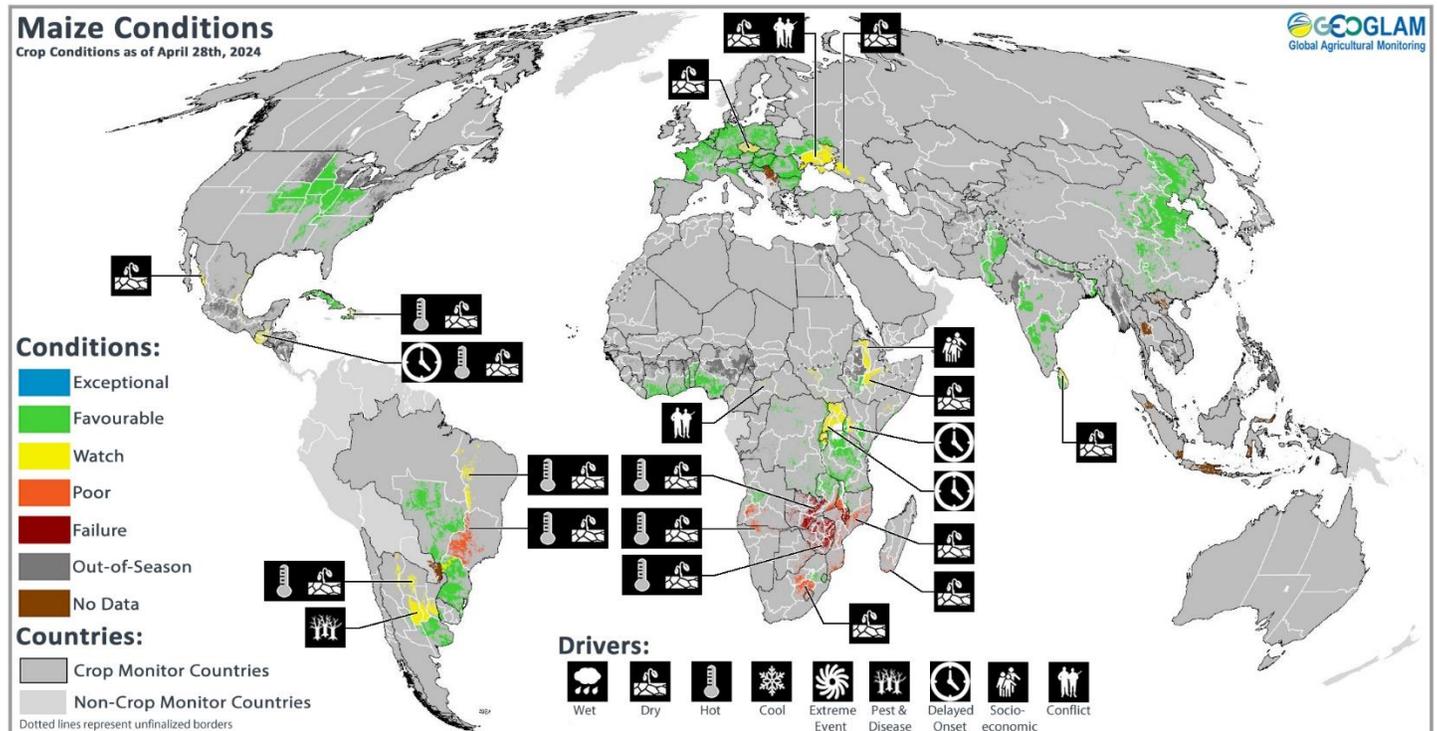


Wheat crop conditions over main growing areas are based upon a combination of national and regional crop analyst inputs along with earth observation data. Conditions are based upon information as of April 28th.

In **North America**, conditions are mostly favourable in the US for winter wheat, except in Kansas where dry conditions are developing in some parts of the state. Spring wheat sowing is beginning under favourable conditions. In Canada, winter wheat conditions are favourable in the east, however, dry conditions remain across the western Prairies due to an autumn drought and low winter precipitation. In Mexico, conditions are mixed for winter wheat. In **Europe**, exceptionally warm spring temperatures in the EU, coupled with adequate water supply in most parts, have been beneficial for winter wheat conditions. In the UK, overly wet and waterlogged fields continue to impact crops. In Türkiye, conditions are favourable with ample rainfall supporting crops, particularly in the eastern regions. In Ukraine, enough rainfall and warmer-than-average April temperatures continue to support favourable winter wheat conditions, however, the active warzone in the south and east remains a concern for agriculture. In the Russian Federation, conditions remain favourable for winter wheat, albeit with reduced precipitation in the southern Caucasus. Spring wheat sowing is beginning in the Volga region under favourable conditions. In **Central Asia**, winter wheat harvesting is now underway in Afghanistan while crops continue to develop in southern Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan, and Uzbekistan. Spring wheat planting has started across Kyrgyzstan, Tajikistan, and southern Kazakhstan. In **South Asia**, harvesting is continuing in India, Pakistan, and Nepal under favourable conditions. In Bangladesh, harvesting is wrapping up under favourable conditions. In **East Asia**, winter and spring wheat conditions are favourable in China. In **MENA**, below-average yields are expected in Morocco, Algeria, and Tunisia due to hot and dry conditions, however, recent rains resulted in minor crop recovery in some areas. In Libya, ongoing socio-economic challenges related to the continuing conflict are expected to result in below-average yields. In Egypt conditions are favourable. In eastern Iran and central-eastern Iraq, recent dry conditions have degraded crop biomass. In **Sub-Saharan**, harvesting is wrapping up in Sudan under poor conditions due to the ongoing conflict situation and related socio-economic challenges. Sowing is beginning in Zimbabwe.

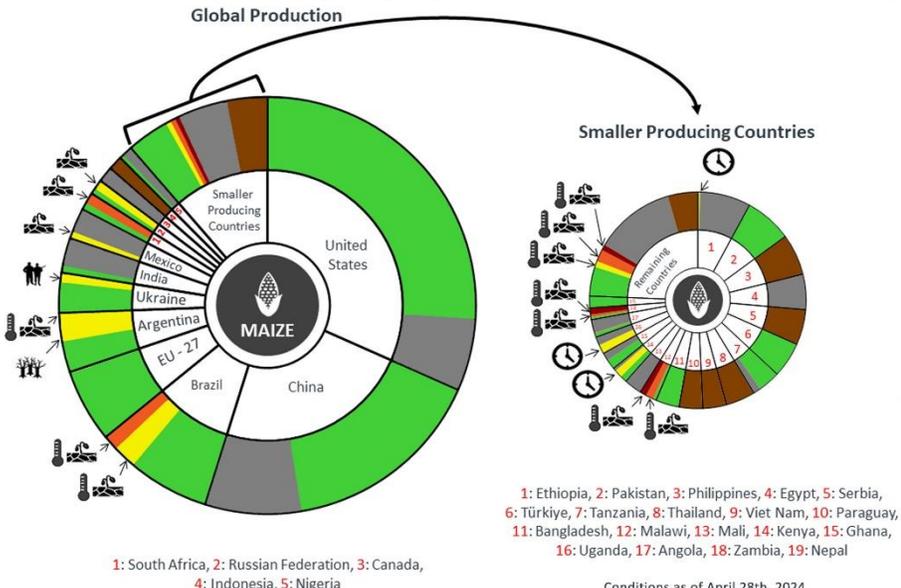


MAIZE



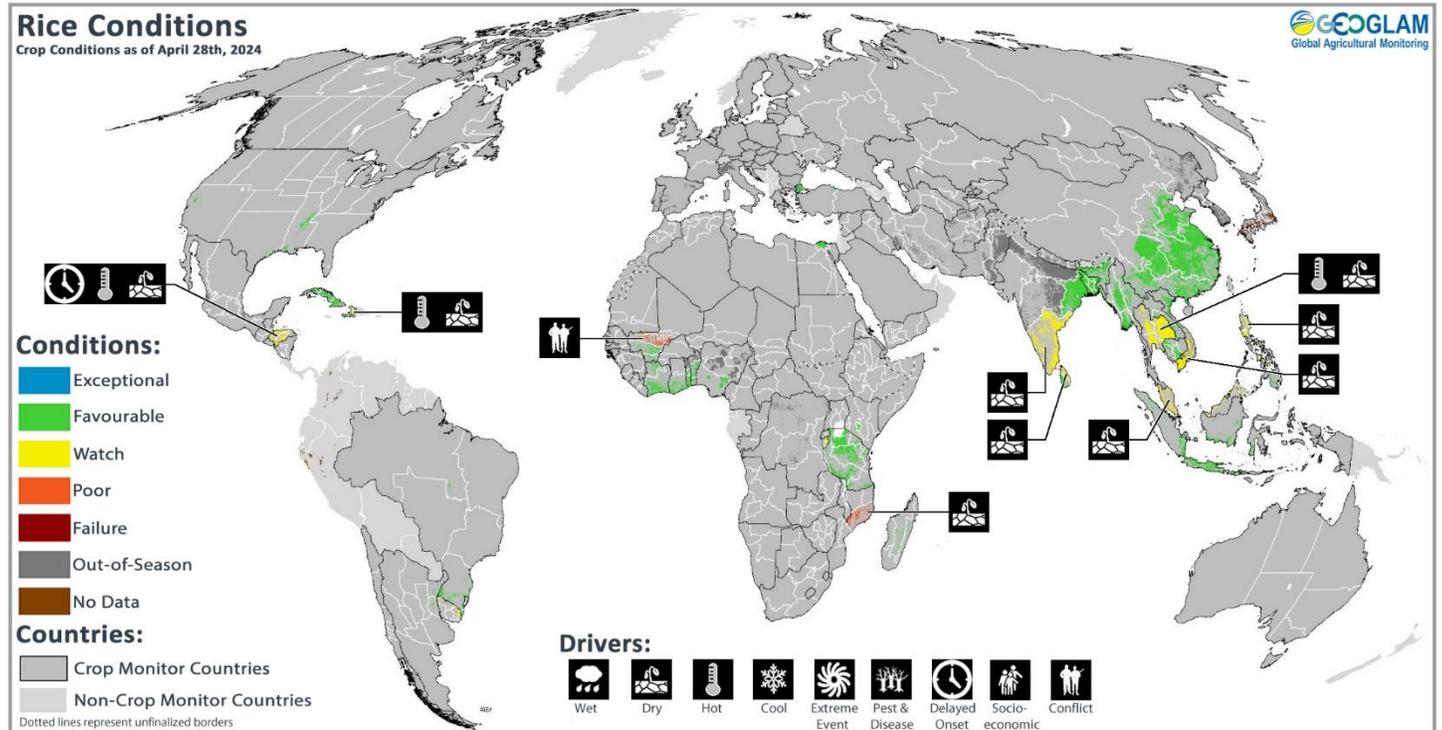
Maize crop conditions over main growing areas are based upon a combination of national and regional crop analyst inputs along with earth observation data. Conditions are based upon information as of April 28th.

In **South America**, harvesting is progressing in Brazil for the spring-planted crop (smaller season) with significantly reduced yields in the Southeast region due to an earlier lack of rainfall and high temperatures. The summer-planted crop (larger season) is developing under worsening conditions in some areas due to irregular rainfall and high temperatures. In Argentina, harvesting the early-planted crop (larger season) is progressing under mostly favourable conditions, albeit with delays due to recent rains. For the late-planted crop (smaller season), there is growing concern about widespread yield decreases due to corn stunt disease being spread by the corn leafhopper insect. In Uruguay, harvesting is progressing under favourable conditions. In **Central America & the Caribbean**, the ongoing drought in Mexico continues to be a concern for the Autumn-winter season (smaller season). Early season dryness and low soil moisture are delaying planting activities in Guatemala and Honduras. In Cuba, sowing and development of main-season crops continue under favourable conditions. In Haiti, dry conditions are impacting the sowing of the *Primtemps* season. In **North America**, conditions are favourable as sowing continues to expand into the US Corn Belt region. In **Europe**, sowing is beginning in the EU under favourable and earlier than usual due to warm spring weather. In the Russian Federation, sowing is ongoing into dry soils in the south. In **Asia**, harvesting is wrapping up in India under favourable conditions for the *Rabi* crop. In China, the sowing of spring maize continues under favourable conditions. In the Democratic People's Republic of Korea, maize sowing is beginning under favourable conditions. In Bangladesh, harvesting is wrapping up for the winter crop (larger season) as the sowing of the summer crop (smaller season) continues. In Sri Lanka, sowing of *Yala* season crop crops is just beginning under mixed conditions. In **East Africa**, delayed rainfall onset and dry conditions in parts of South Sudan and central Ethiopia are impacting sowing activities. Across southern East Africa, main season crops are now in the vegetative to the reproductive stage in Rwanda, Uganda, and the northern United Republic of Tanzania, while sowing activities continue in Burundi, Kenya, and Somalia, and overall conditions are mixed. In **Southern Africa**, hot and dry conditions throughout the season, linked to the presence of El Niño, in combination with a severe dry spell in February are expected to result in well below-average yields in parts of Zimbabwe, Zambia, and southern Malawi. In South Africa, dry conditions between mid-January and late March had a significant negative impact on crops in the main producing provinces of Free State and North West, with yields in these areas expected to be below-average.



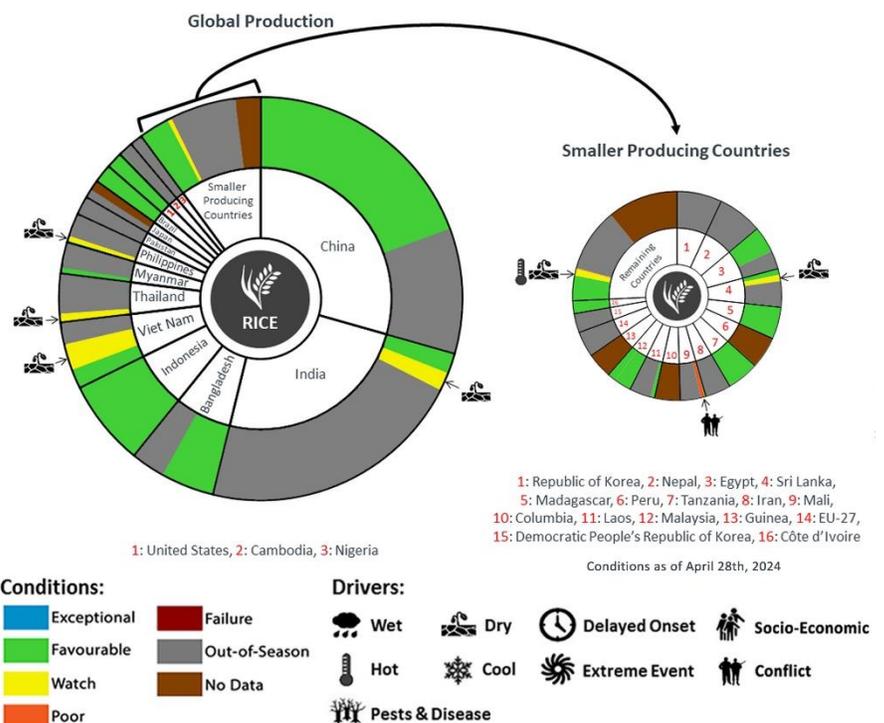
For detailed description of the pie chart, please see box on page 5.

RICE



Rice crop conditions over main growing areas are based upon a combination of national and regional crop analyst inputs along with earth observation data. Conditions are based upon information as of April 28th.

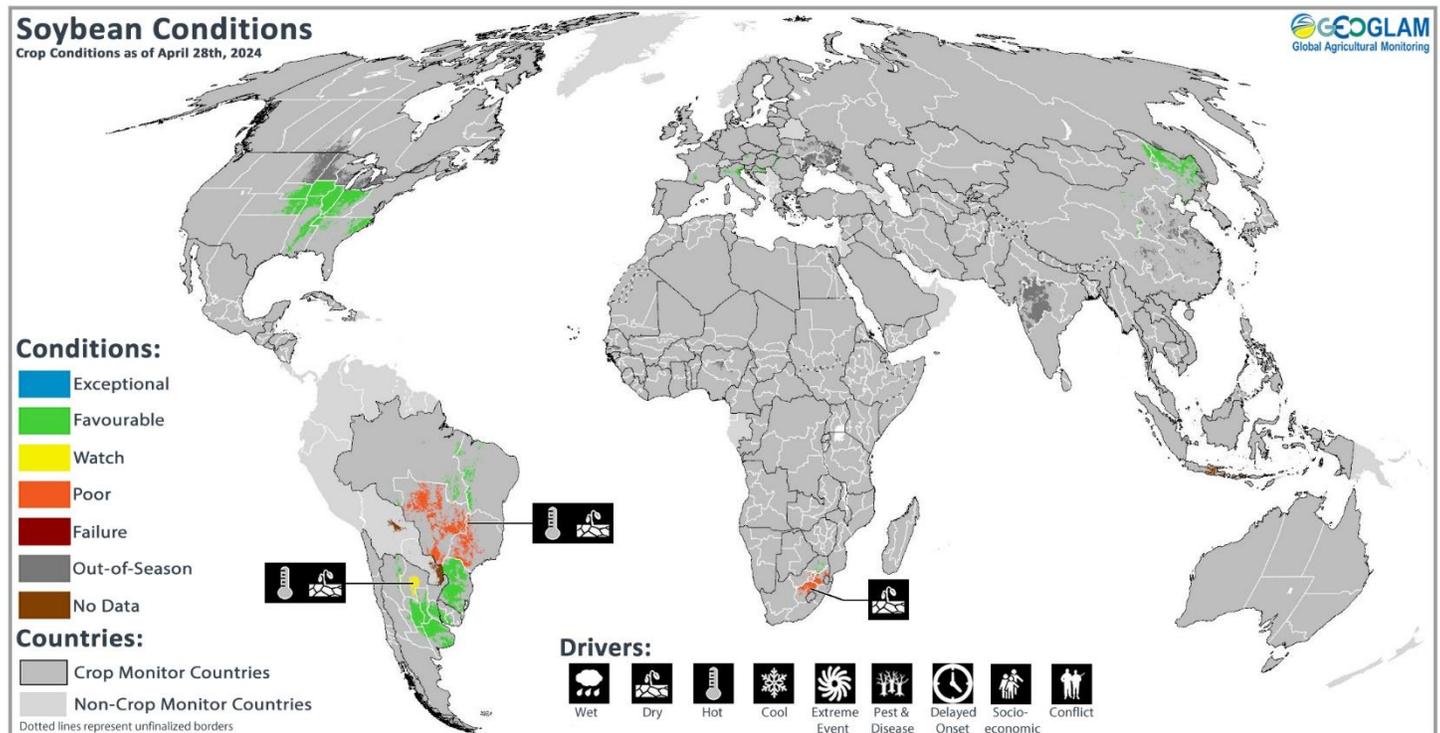
In **South Asia**, the transplanting of the Rice/Summer crop in India is completed and the crop has progressed well in eastern states. Harvesting of early sown crops in parts of A.P., Telangana, and Karnataka has begun. In Bangladesh, conditions are favourable as harvesting begins for the Boro crop (largest season) and as sowing continues for the Aus crop (smallest season). In Sri Lanka, sowing of *Yala* season crops is just beginning, and conditions are generally favourable except in the northeast where there is some early season dryness. In **East Asia**, the early-planted crop in China is in the vegetative stage as the sowing of single-season rice is continuing. In **Southeast Asia**, dry-season rice (winter-spring rice) in Viet Nam is under favourable conditions in the north, while in the south, harvesting of dry-season rice (winter-spring rice) is ongoing under mixed conditions due to saltwater intrusion. The sowing of wet-season rice (summer-autumn rice) is beginning in the Mekong Delta. In Thailand, dry-season rice harvesting is progressing under mixed conditions due to earlier hot and dry weather. In the Philippines, dry-season rice is being harvested with reduced yields expected across most of the country due to below-average rainfall and above-average temperatures. In Laos, dry-season rice is under favourable conditions. In Myanmar, the sowing of dry-season rice is now complete. In Cambodia, dry-season rice is in the late harvesting stage under favourable conditions. In Indonesia, harvesting wet-season rice continues with a significant reduction in the total sown area compared to last season. Dry-season rice sowing is beginning at a higher rate than last season, owing to ample rainfall. In Malaysia and Brunei, wet-season rice harvesting is wrapping up as the sowing of dry-season rice begins. In the **Americas**, sowing is expanding in the US to California. In Cuba, harvesting of second-season rice is now underway under favourable conditions. In Haiti, sowing of the *Printemps* season crop is ongoing under mixed conditions. In Brazil, harvesting continues under favourable conditions. In Uruguay, harvesting is ongoing albeit slowly due to excessive rainfall. In Argentina, harvesting is ongoing. In **Sub-Saharan Africa**, sowing is ramping up in Liberia, Cote d'Ivoire, Ghana, Togo, Benin, and southern Nigeria.



For detailed description of the pie chart, please see box on page 5.

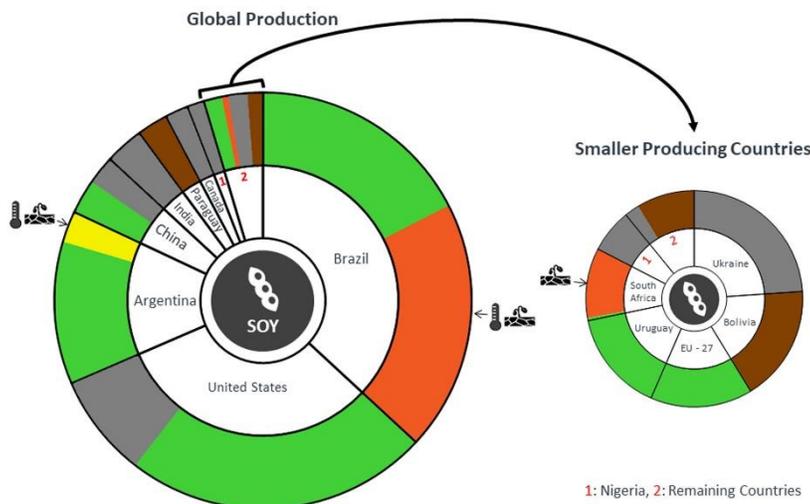
* Assessment based on information as of April 28th, 2024

SOYBEAN



Soybean crop conditions over main growing areas are based upon a combination of national and regional crop analyst inputs along with earth observation data. Conditions are based upon information as of April 28th.

In **South America**, harvesting is nearing the end in Brazil under mixed conditions due to a lack of rain and high temperatures during crop development. The Central-West and Southeast regions are the most impacted with yields much below-average, while in the Northeast and North regions, the impact is smaller, and final yields are close to average. In the South region, yields are close to average despite periods experiencing weather extremes during the season. In Argentina, continuous rainfall is delaying the ongoing harvesting of the early-planting crop (typically larger season) and the beginning of the harvest for the late-planted crop (typically smaller season), however, good yields are expected for both crops. In **North America**, sowing is beginning in the US under favourable conditions and at a quicker pace than average. In **Asia**, sowing is beginning in China under favourable conditions, aided by above-average temperatures. In **Africa**, harvesting is wrapping up in South Africa under poor conditions as a result of prolonged drought during the season.



Pie Chart Description: Each slice represents a country's share of total Global production (5-year average). Main producing countries (representing 90-95 percent of production) are shown individually, with the remaining 5-10 percent grouped into the "Smaller Producing 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 (e.g., spring and winter wheat). When conditions are other than 'favourable', icons are added that provide information on the key climatic drivers affecting conditions.



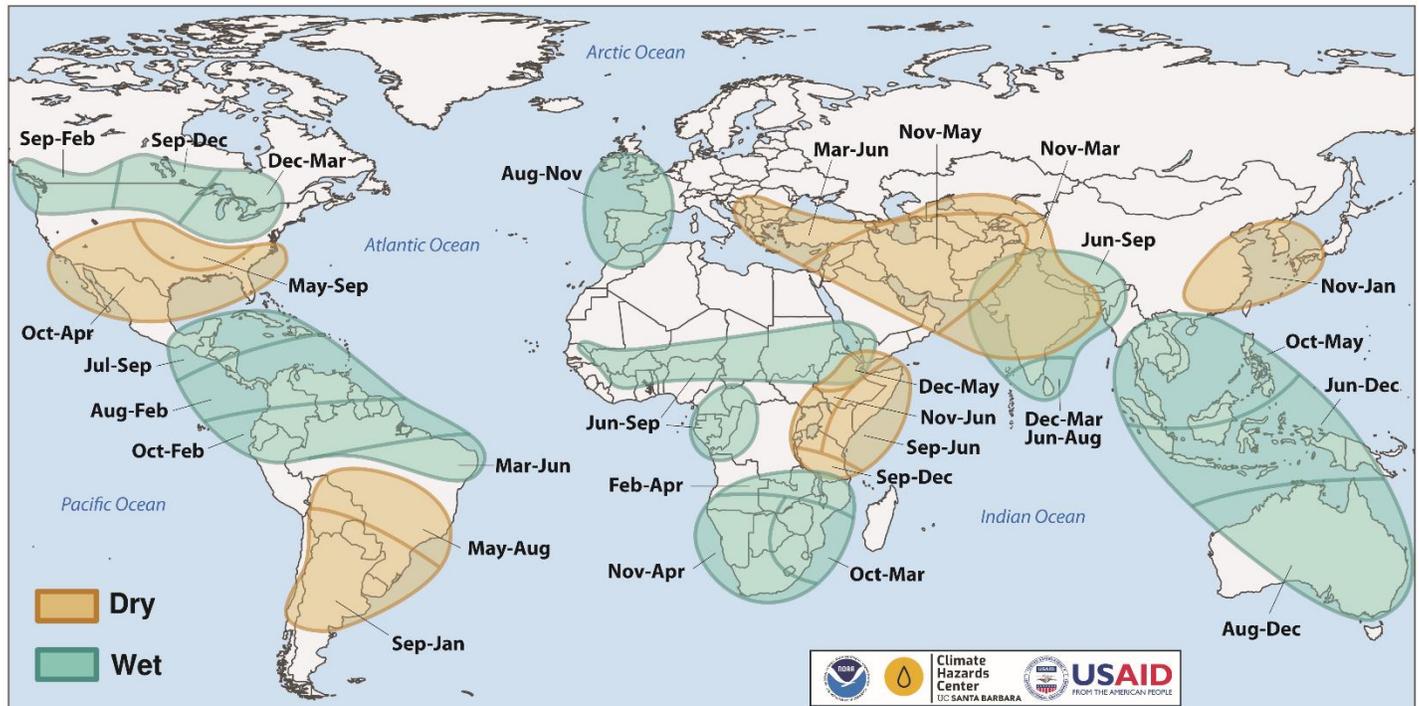
Global Climate Influences

The El Niño event has continued to weaken, and neutral ENSO conditions are likely by April to June (85% chance). A quick shift to persistent La Niña conditions is anticipated. The CPC/IRI predicts a 73% chance of La Niña by July to September 2024, and chances remain high throughout the forecast period.

Globally, record-high temperatures in the latter half of 2023 and 2024 reflect the influences of the strong 2023–2024 El Niño and climate change. Heat extremes will very likely continue during 2024. Associated with forecast La Niña conditions and abnormally warm ocean temperatures, the multi-year pattern of climate extremes may continue. The strong and impactful 2023–2024 El Niño was preceded by three years of La Niña and associated multi-year droughts, especially in eastern East Africa, central-southern Asia, and southern South America.

Source: UCSB Climate Hazards Center

For further analysis of the historical impacts of La Niña events on crop yields, please see the write-up in the [CM4AMIS](#) report.



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. Source: [FEWS NET & NOAA & CHC](#)

Regional Outlooks

The two-week forecast (Figures 1 & 2) continues to be influenced by the weakening El Niño event along with a warming global climate.

In **North America**, the two-week forecast (Figures 1 & 2) indicates potential areas of above-average precipitation over parts of the southern Prairies in Canada and pockets of the US southern Great Plains. During the same time, temperatures are likely to be above-average in central Canada and the US. The long-term May-June-July 2024 forecast (Figures 3 & 4) shows a leaning toward above-average precipitation over the US southeast, while a leaning towards below-average in the southwest. During the same time, temperatures are likely to be above-average across both Canada and the US. For further details, see the [CM4AMIS](#) Regional Outlook for the US and Mexico.

In **Central America & the Caribbean**, the two-week forecast (Figures 1 & 2) indicates likely below-average precipitation over the Pacific Coast and southern Gulf Coast of Mexico and central Cuba, while above-average over the Dominican Republic. During the same period, temperatures are likely to be above-average over most of Mexico, Guatemala, El Salvador, southern Honduras, Nicaragua, Costa Rica, and southern Cuba, while below average across western Mexico. The long-term May-June-July 2024 forecast (Figures 3 & 4) suggests below-average precipitation over most of central and western Mexico, while above-average precipitation over Guatemala, El Salvador, Honduras, Nicaragua, Costa Rica, Panama, Haiti, and the Dominican Republic. During this time, temperatures are highly likely to be above-average across most of the region except for western Mexico. For further details, see the [CM4AMIS](#) regional outlook for Mexico and see the [CM4EW](#) regional outlook for Central America and the Caribbean.

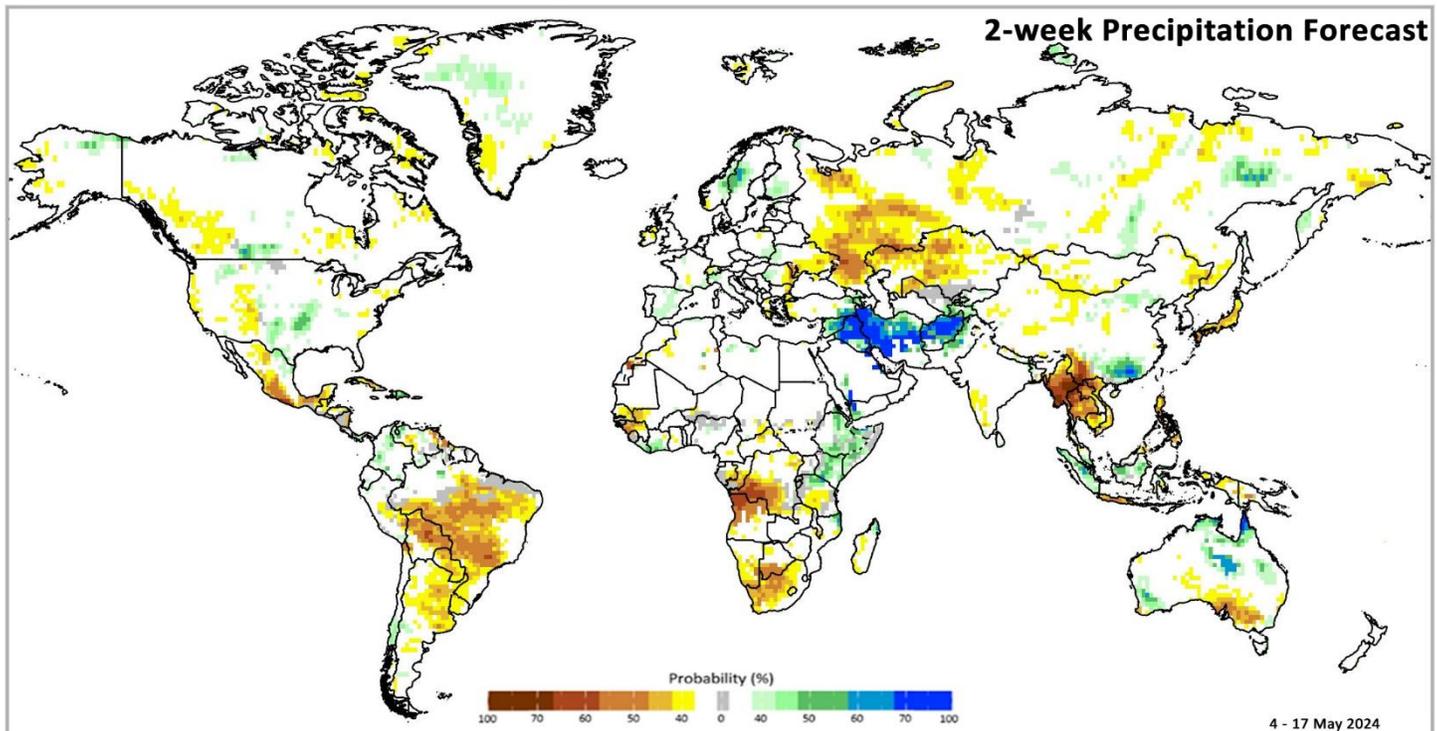


Figure 1: IRI SubX Precipitation Biweekly Probability Forecast for 4 – 17 May 2024, issued on 26 April 2024. The forecast is based on statistically calibrated tercile category forecasts from three SubX models. Source: [IRI Subseasonal Forecasts Maproom](#)

In **South America**, the two-week forecast (Figures 1 & 2) indicates likely below-average precipitation over northern Guyana, southeastern Peru, most of Brazil, northern and eastern Bolivia, Paraguay, central Argentina, and western Uruguay, while above-average over parts of Columbia and northwestern Venezuela. During this time, temperatures are highly likely to be above-average across Columbia, Venezuela, Guyana, Suriname, French Guiana, Brazil, Ecuador, Peri, southwestern Bolivia, northern Chile, northwestern Argentina, and northeastern Paraguay, while below-average over most of Argentina and southern Chile. The long-term May-June-July 2024 forecast (Figures 3 & 4) suggests likely above-average precipitation across western Columbia, Venezuela, Guyana, Suriname, and French Guiana, while below-average across Peru, central Brazil, Bolivia, Paraguay, Chile, Argentina, and Uruguay. During that time, temperatures are highly likely to be above-average over most of the continent except for southern Brazil, Paraguay, Uruguay, Argentina, southern Chile, coastal Peru, and coastal Ecuador.

In **Europe**, the two-week forecast (Figures 1 & 2) indicates likely below-average precipitation over eastern Romania, Moldova, eastern and southern Ukraine, and the Russian Federation, while above-average over central Norway and central Sweden. During this time, temperatures are leaning to above-average over Slovakia, Hungary, eastern Croatia, Serbia, Romania, Moldova, northern Bulgaria, Montenegro, Kosovo, and northern North Macedonia, while below-average over Portugal, Spain, and parts of western France. The long-term May–June–July 2024 forecast (Figures 3 & 4) indicates likely above-average precipitation over eastern Türkiye, Georgia, Armenia, and Azerbaijan. During the same period, temperatures are likely to be above-average across Europe, with the highest likelihood over central and southern Europe.

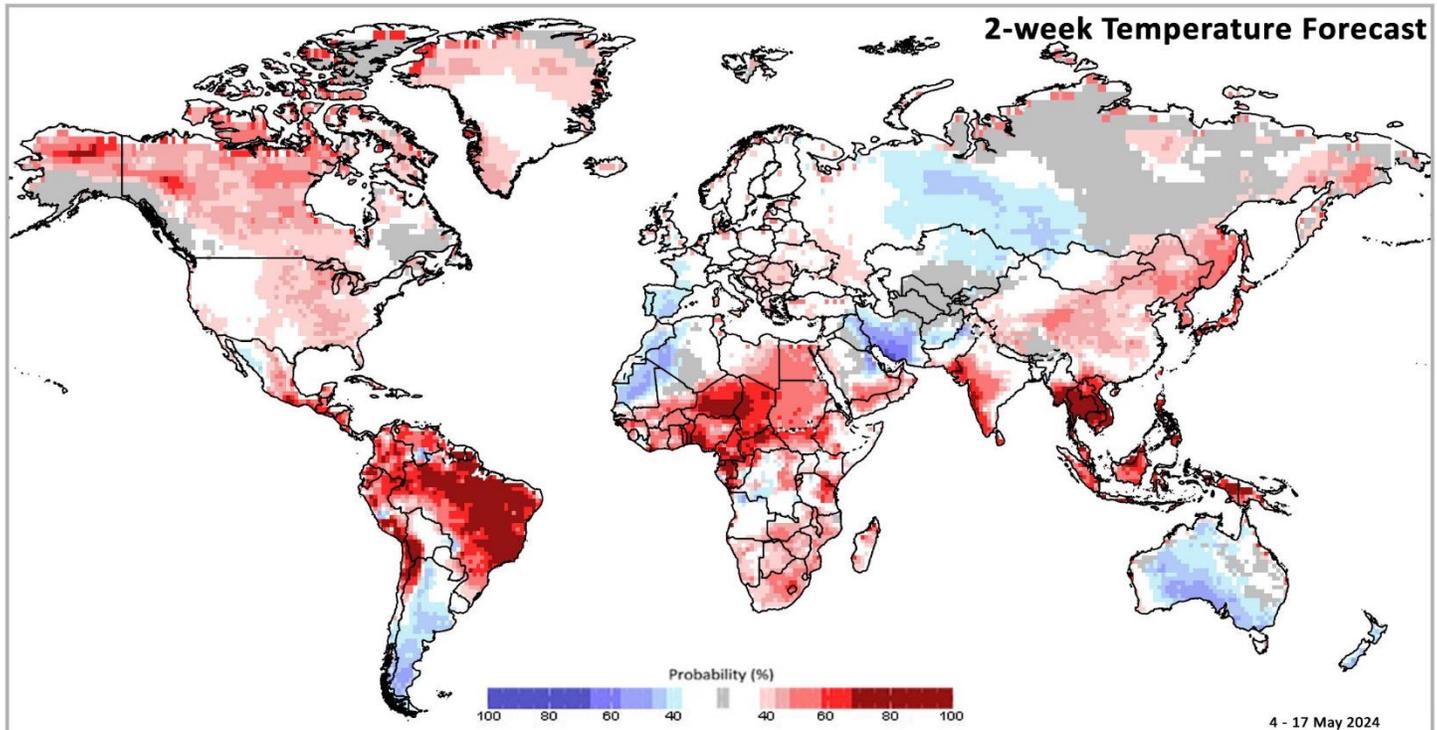


Figure 2: IRI SubX Temperature Biweekly Probability Forecast for 4 – 17 May 2024, issued on 26 April 2024. The forecast is based on statistically calibrated tercile category forecasts from three SubX models. Source: [IRI Subseasonal Forecasts Maproom](#)

In **MENA**, the two-week forecast (Figures 1 & 2) indicates likely above-average precipitation over Syria, Iraq, Kuwait, western and central Iran, and western Yemen. During this time, temperatures are likely to be above-average over northern Tunisia, eastern Libya, Egypt, southern Saudi Arabia, Yemen, and Oman. The long-term May–June–July 2024 forecast (Figures 3 & 4) indicates precipitation is likely to be above-average over Syria, Iraq, Iran, Jordan, central and eastern Saudi Arabia, Yemen, and Oman. During this time, temperatures are highly likely to be above-average across the entire region.

In **Sub-Saharan Africa**, the two-week forecast (Figures 1 & 2) indicates likely below-average precipitation over eastern Senegal, western Mali, western Guinea, southern Republic of the Congo, western Democratic Republic of the Congo, northern Angola, southern Namibia, southern Botswana, central and western South Africa, and central Tanzania, while above-average over southern Liberia, southern Côte d'Ivoire, eastern Ethiopia, southern Somalia, Kenya, northeastern Tanzania, and northeastern Mozambique. At the same time, temperatures are likely to be above-average in Guinea-Bissau, Guinea, Sierra Leone, southern Mali, Burkina Faso, Côte d'Ivoire, Ghana, Togo, Benin, Niger, Nigeria, Chad, Cameroon, Equatorial Guinea, Gabon, Republic of the Congo, the Central African Republic, Sudan, South Sudan, western Ethiopia, northern and southern Kenya, northeast Democratic Republic of the Congo, Rwanda, Burundi, northeast Tanzania, southern Zambia, Malawi, Zimbabwe, Mozambique, Botswana, Namibia, South Africa, Lesotho, Eswatini, and parts of Madagascar, while below-average over Mauritania and northern Angola. For the long-term May–June–July 2024 forecast (Figures 3 & 4), precipitation is likely to be above-average in Sierra Leone, Liberia, Côte d'Ivoire, Ghana, Togo, Benin, Nigeria, Chad, Cameroon, the Central African Republic, Sudan, South Sudan, Ethiopia, Kenya, Uganda, Somalia, northeast Democratic Republic of the Congo, Rwanda, Burundi, northeast Tanzania, while below-average over Senegal, Namibia, Botswana, South Africa, and Madagascar. During this time, temperatures are highly likely to be above-average across all of Sub-Saharan Africa except for coastal South Africa and coastal Namibia. For further details, see the [CM4EW](#) regional outlooks for East Africa.

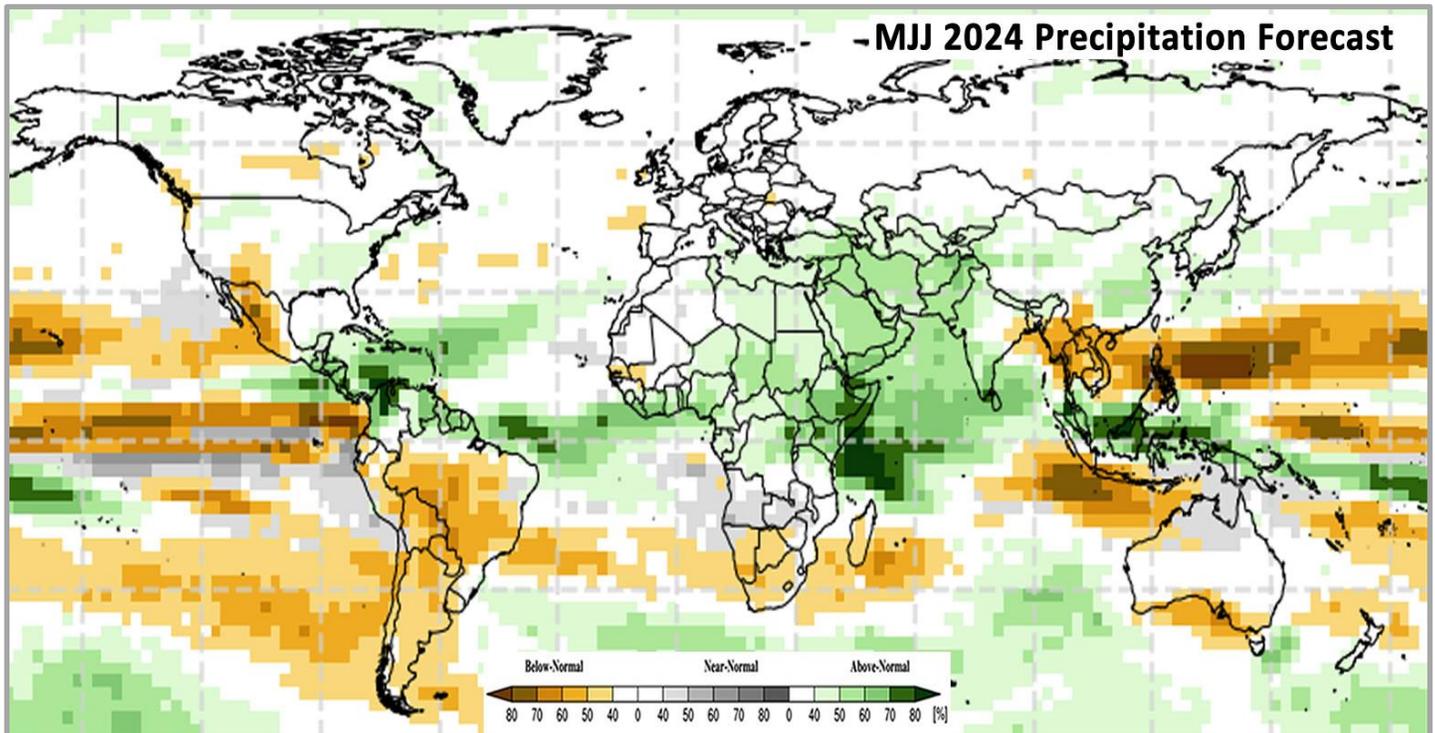


Figure 3: Probabilistic forecast for most likely May-June-July (MJJ) 2024 rainfall tercile, based on April conditions. The white colour indicates that there is no dominant category across the model forecasts. Source: [WMO Lead Centre for Long-Range Forecast Multi-Model Ensemble](#)

In **Central Asia**, the two-week forecast (Figures 1 & 2) indicates likely below-average precipitation over central and northern Kazakhstan and western Uzbekistan, while above-average precipitation over Afghanistan and Tajikistan. During this time, temperatures are leaning towards being below-average in northern Kazakhstan and southern Afghanistan. The long-term May-June-July 2024 forecast (Figures 3 & 4) indicates a slight leaning toward above-average precipitation over most of the region except for Kazakhstan. At the same time, temperatures are likely to be above-average across the entire region except for northern Kazakhstan. For further details, see the [CM4EW](#) regional outlooks for Central and South Asia.

In **South Asia**, the two-week forecast (Figures 1 & 2) indicates likely above-average precipitation over western Pakistan. During this time, temperatures are likely to be above-average in southern Pakistan, western India, and southwest Sri Lanka. The long-term May-June-July 2024 forecast indicates likely above-average precipitation over Pakistan, India, and Sri Lanka, while below-average over Bangladesh. At the same time, temperatures are likely to be above-average across most of the region except for northern Pakistan, northern India, and Nepal. For further details, see the [CM4EW](#) regional outlooks for Central and South Asia.

In **East Asia**, the two-week forecast (Figures 1 & 2) indicates likely below-average precipitation over southwest and northeast China and Japan, while above-average over southeastern China. During this time, temperatures are likely to be above-average in eastern Mongolia, northeast and central China, the Democratic Republic of Korea, the Republic of Korea, and Japan. The long-term May-June-July 2024 forecast (Figures 3 & 4) indicates a leaning toward above-average precipitation over eastern China, while below-average over southwestern China. During that time, temperatures are highly likely to be above-average over the entire region except for northeast China.

In **Southeast Asia & Oceania**, the two-week forecast (Figures 1 & 2) indicates potential below-average precipitation over Myanmar, Thailand, northern Laos, Cambodia, Vietnam, the Philippines, southern Indonesia, and southern Australia, while above-average over northern Indonesia and northern and western Australia. During this time, temperatures are likely to be above-average over southern Myanmar, Laos, Thailand, Cambodia, Vietnam, the Philippines, Malaysia, Indonesia, and Papua New Guinea, while below average in Australia and New Zealand. The long-term May-June-July 2024 forecast (Figures 3 & 4) indicates likely above-average precipitation over Indonesia, Malaysia, and Papua New Guinea, while below-average over Myanmar, Thailand, Laos, Cambodia, Vietnam, the Philippines, and southern Australia. During the same time, temperatures are highly likely to be above-average across the entire region.

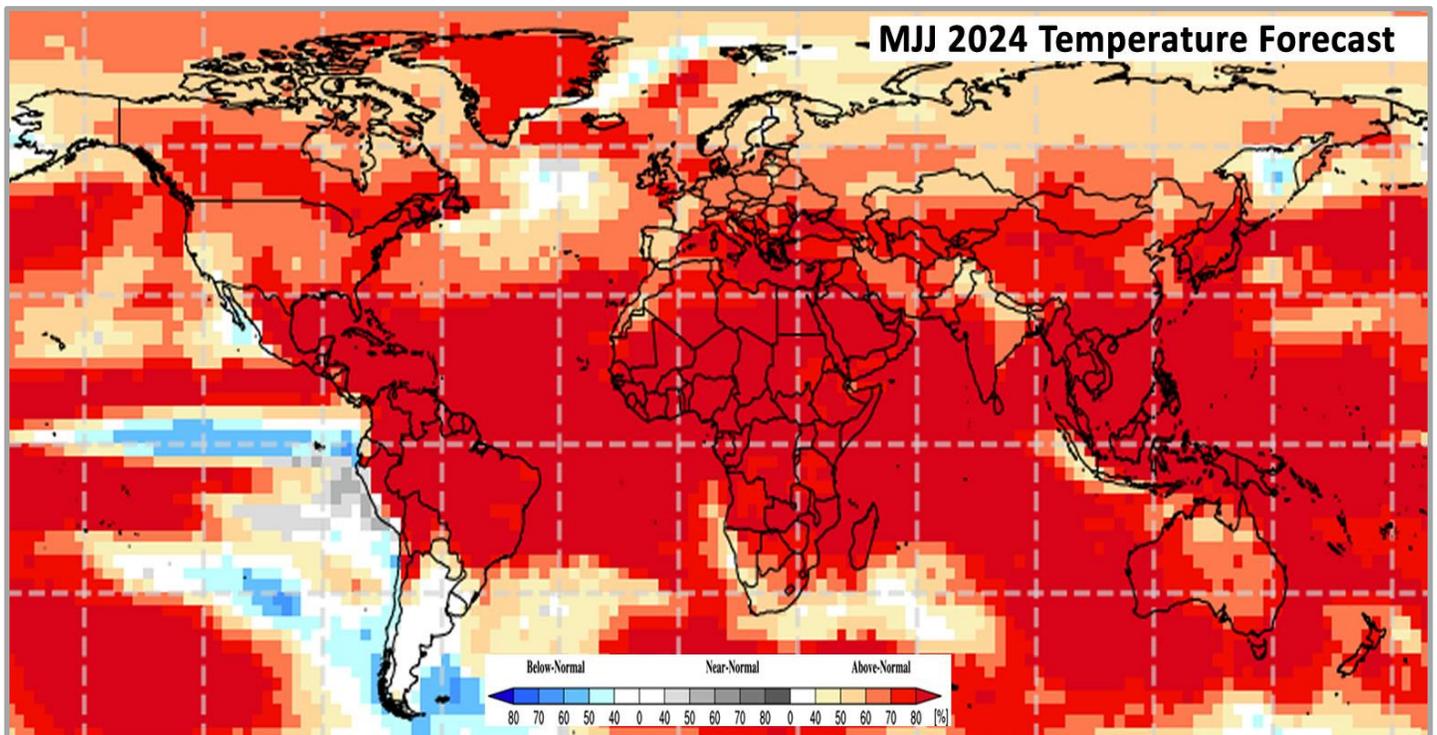


Figure 4: Probabilistic forecast for most likely May-June-July (MJJ) 2024 temperature tercile, based on April conditions. The white colour indicates that there is no dominant category across the model forecasts. Source: [WMO Lead Centre for Long-Range Forecast Multi-Model Ensemble](#)



The Crop Monitor is a part of GEOGLAM, a GEO global initiative.
 Prepared by members of the GEOGLAM Community of Practice.
 Coordinated by the University of Maryland with funding from NASA Harvest.
 Synthesized from the Crop Monitor for AMIS, the Crop Monitor for Early Warning, and direct submissions from individual countries.

2024 Global Crop Monitor release dates:
 1 February, 7 March, 4 April, 2 May, 6 June, 4 July, 1 August,
 5 September, 3 October, 7 November, 5 December

<https://cropmonitor.org/>
 @GEOCropMonitor

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 5-25% below-average. This is only used when conditions are not likely to be able to recover, and an 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 currently.

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



Drivers:

These represent the key climatic, environmental, and anthropomorphic 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.

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

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

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



Crop Condition Indicators:

Current Crop Conditions: The current crop condition indicators are based on only the crops that are currently in season. Crops with "No Data" are not counted. The crop condition is considered "Positive", with a green-coloured crop symbol, when 85-100% of active crops are currently under favourable to exceptional conditions. The crop conditions are considered "Mixed", with an orange-coloured crop symbol, when only 70-85% of active crops are under favourable to exceptional conditions. The crop conditions are considered "Negative", with a dark red-coloured crop symbol when only 0-70% of active crops are under favourable to exceptional conditions.

Crop Condition Comparisons: Crop condition changes are measured between the current month's conditions compared to the previous month and exactly one year ago. Only active crops are considered. If there is a -5% change in global crop conditions, then the crop conditions are considered "Deteriorating" (indicated by a down arrow). If there is a +5% change in global crop conditions, then the crop conditions are considered "Improving" (indicated by an up arrow). Otherwise, crop conditions are considered "Stable" (indicated by a dash).