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

**Synthesis Conditions**

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).

**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.

### 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.

**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.

* Assessment based on information as of January 28th

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:** 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.

* Assessment based on information as of January 28th
Maize Conditions for AMIS Countries

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.

* Assessment based on information as of January 28th

For detailed description of the pie chart please see box on page 6.
Rice Conditions for AMIS Countries

**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.

* Assessment based on information as of January 28th
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.
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

* Assessment based on information as of January 28th
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.

*I* Assessment based on information as of January 28th
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 Ríos 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.

* Assessment based on information as of January 28th
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


* Assessment based on information as of January 28th
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

* Assessment based on information as of January 28\textsuperscript{th}
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

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.

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

* Assessment based on information as of January 28th
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 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 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 3 Conditions for AMIS Countries

![Rice 3 Crop Conditions Map](image1)

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 Map](image2)

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 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.
Prepared by members of the GEOGLAM Community of Practice
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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/

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Sources & Disclaimer

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