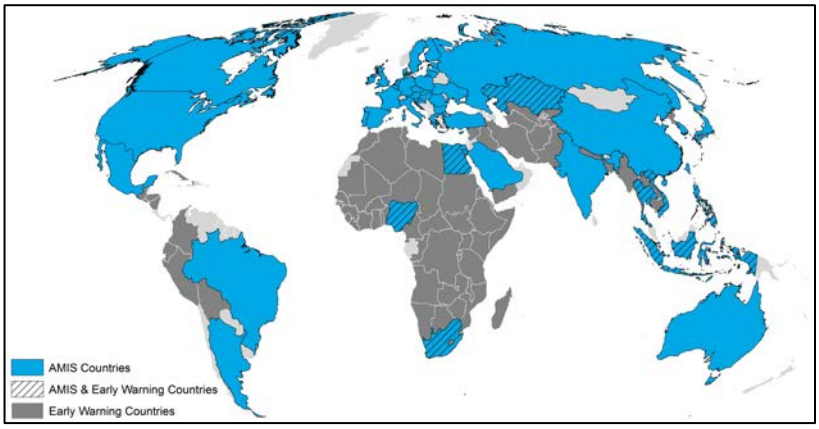
CROP MONITOR FOR **AMIS**

NO. 38

April 2017

The Group on Earth Observations' Global Agricultural Monitoring (GEOGLAM) initiative developed the Crop Monitor whose objection is to provide AMIS with an international and transparent multi-source, consensus assessment of crop growing conditions, status, and agro-climatic conditions, likely to impact global production. This activity covers the four primary crop types (wheat, maize, rice, and soy) within the main agricultural producing regions of the AMIS countries (G20+7). The Crop Monitor reports provide cartographic and textual summaries of crop conditions as of the 28th of each month, according to crop type. There is another Crop Monitoring initiative called the Early Warning Crop Monitor (geoglam-crop-monitor.org/), which has grown out of this initiative.



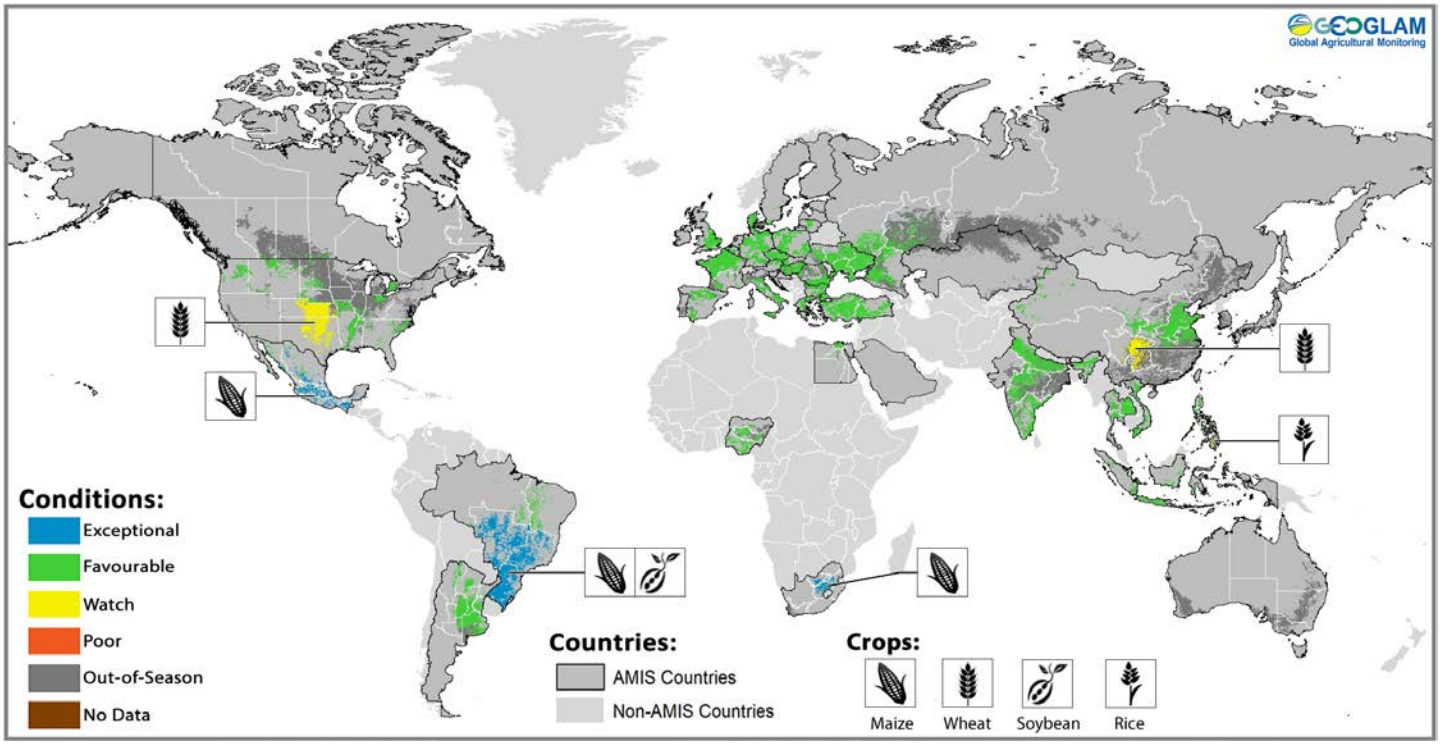
AMIS Agricultural Market Information System

GEO GROUP ON EARTH OBSERVATIONS

Crop Monitor a geoglam initiative

GEOGLAM Global Agricultural Monitoring

Conditions at a glance for AMIS countries (as of March28th)



Crop condition map synthesizing information for all four AMIS crops as of March28th. 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. ***Crops that are in other than favourable conditions are displayed on the map with their crop symbol.***

Conditions at a glance

Wheat - In the northern hemisphere, winter wheat is emerging from dormancy in the main areas and conditions are generally favourable at this early stage of the season. In the US, conditions are mixed as dryness has developed in the primary growing area of the southern Great Plains. Planted area is down in US and Canada for winter wheat.

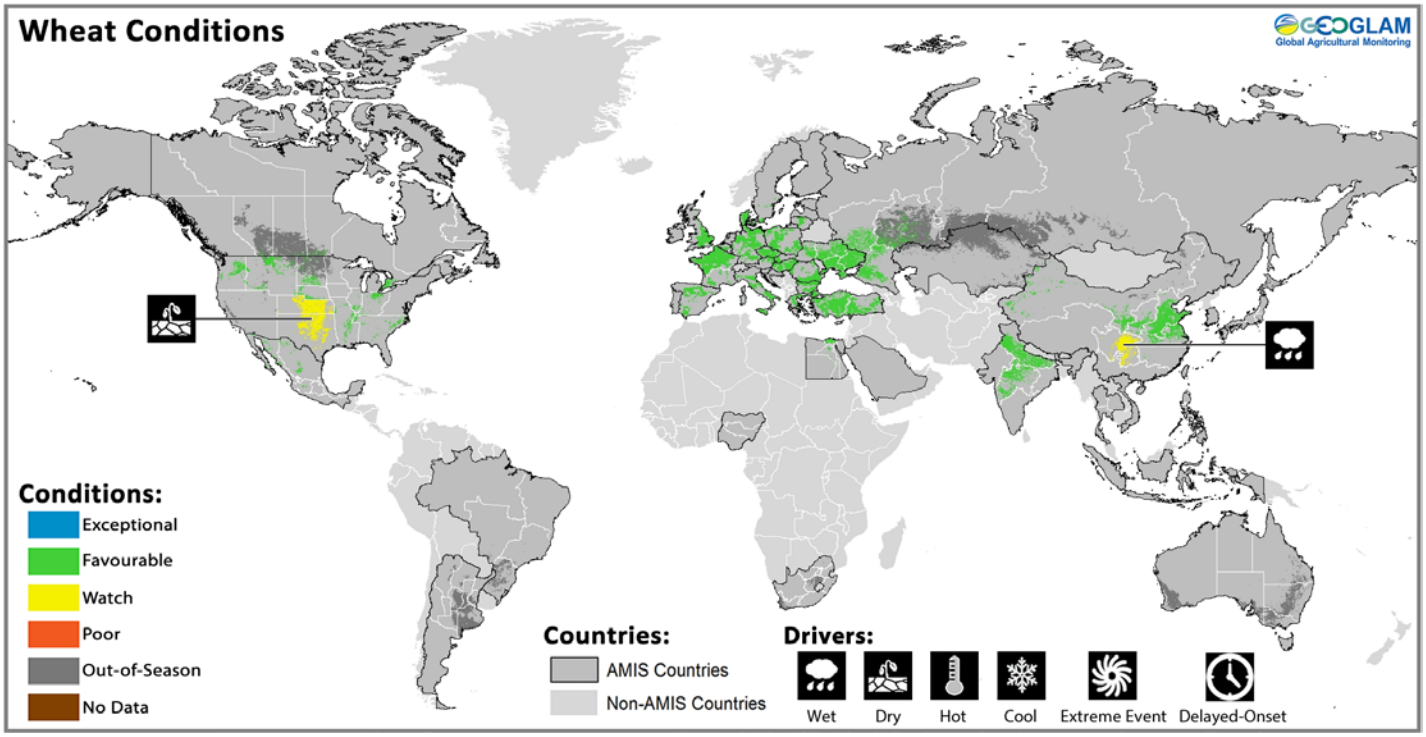
Maize - Overall conditions in the southern hemisphere are favourable with very good production prospects. In Brazil, spring planted crops are being harvested under exceptional conditions with increased production prospects. The summer (larger) planted crop is under favourable conditions. In Argentina, harvesting has begun under favourable conditions. In South Africa, conditions are very good and production is expected to be they are expecting above above-average production. In the northern hemisphere, maize is mostly out of season.

Rice - The secondary rice season is currently ongoing in the majority of AMIS countries in Asia with the exception of Indonesia, where the wet season crop is in being harvested. Crop conditions in Asia are generally favourable across the region, and planted area is up for dry season crops across the region due to sufficient rainfall and irrigation water early in the season.

Soybeans - In the southern hemisphere, harvesting has begun and conditions in Brazil have been upgraded to exceptional with increased production prospects. In Argentina, conditions are continue to be favourable heading into harvesting.

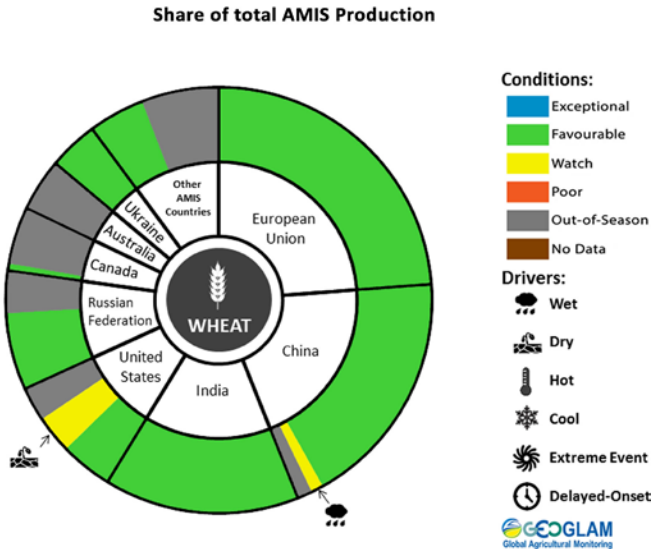
* Assessment based on information as of March28th

Wheat Conditions for AMIS Countries



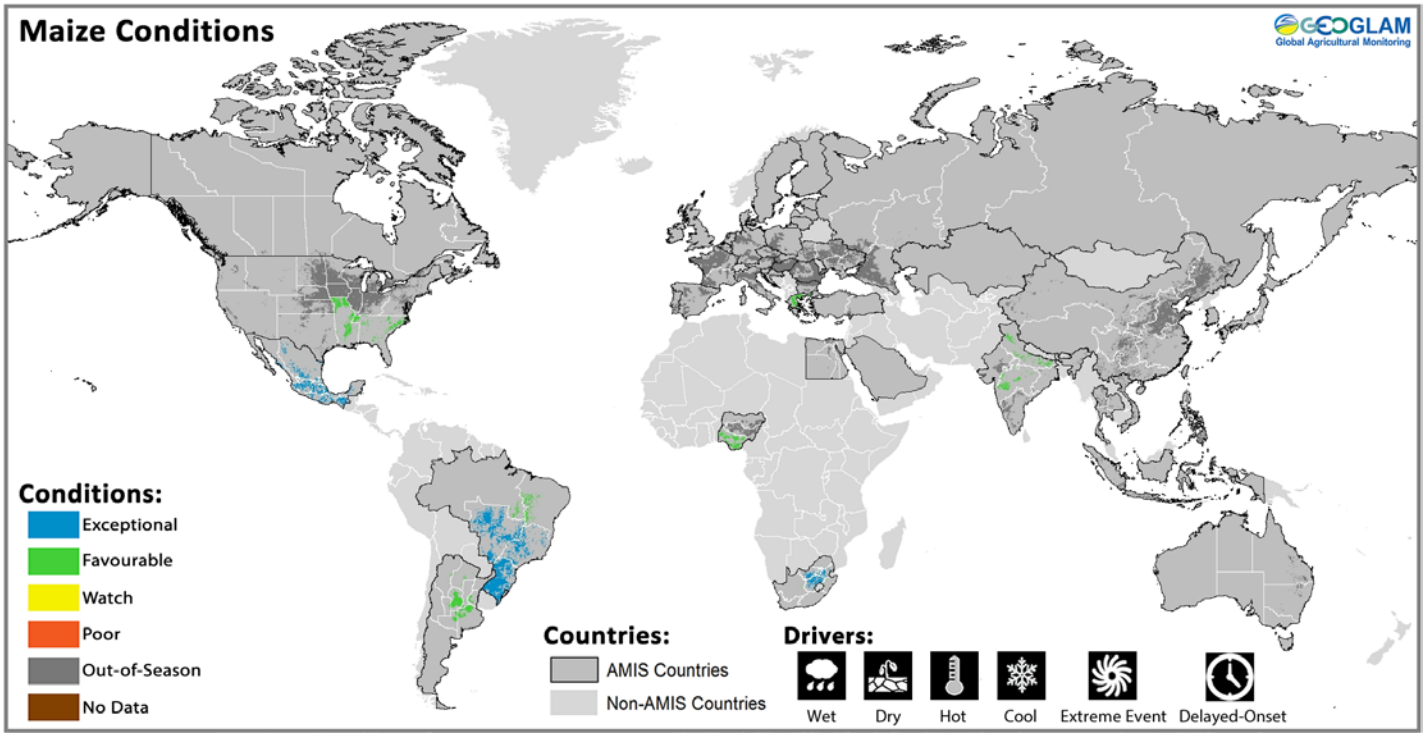
Wheat crop conditions over main growing areas are based upon a combination of national and regional crop analyst inputs along with earth observation data. Condition information is based upon information as of March28th. Where crops are in other than favourable conditions the climatic drivers responsible for those conditions are displayed. Crop Season Specific Maps can be found in Appendix 2.

Wheat: Overall winter wheat crop conditions are favourable in the northern hemisphere as the crop begins to exit dormancy. In the **EU**, winter wheat conditions are favourable due to mild temperatures in late February and early March. In the **US**, the situation is mixed as dryness has developed in the primary growing areas of the southern Great Plains, while the rest of the country is seeing good conditions. Of note, the overall planted area is down to nearly a 100-year low. In **China**, conditions are mostly favourable with the exception of the southwest, where high rainfall is affecting the crop. In **India**, winter wheat is in the ripening to maturity stage under favourable conditions. In the **Russian Federation**, conditions are favourable as the crop exits dormancy. In **Ukraine**, winter wheat has broken dormancy earlier than usual due to an unseasonably warm March and is currently under generally favourable conditions with almost no winter kill reported, slightly dry conditions exist in the south. In **Canada**, winter wheat is still in dormancy under generally favourable conditions with planted area estimated to decrease this year. Monitoring continues for spring flooding, dry conditions, and winter-kill as spring snowmelt is underway.



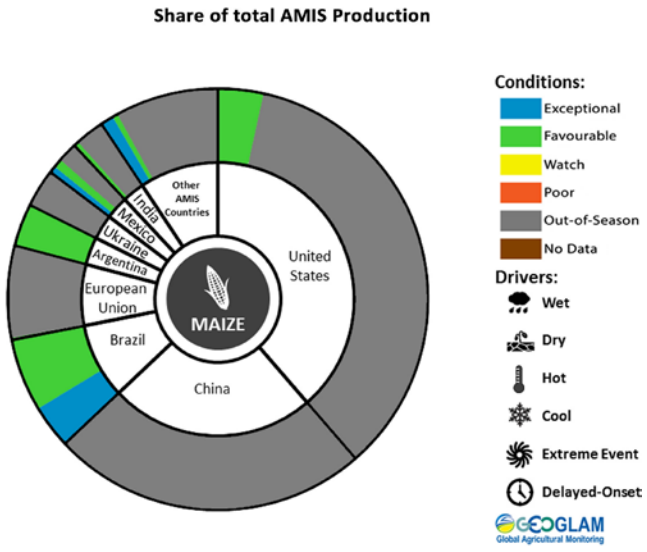
For detailed description of the pie chart please see box below.

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. Condition information is based upon information as of March28th. 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: Overall conditions in the southern hemisphere are favourable with very good production prospects. In **Brazil**, most areas for spring spring-planted crops are being harvested under exceptional conditions, and increased production prospects is expected owing to good weather over the course of the growing season. The summer (larger) -planted (larger) crop is under favourable conditions, predominantly in the vegetative to reproductive stages. In **Argentina**, harvesting has begun under favourable conditions with only minor areas affected due to early season dryness, with late late-planted maize in better condition compared to the early-planted crop. In **South Africa**, conditions are exceptional in the main producing regions with above average production expected owing to wet and mild conditions during the season, although dry conditions in March may affect later later-planted crops. In **Mexico**, planting of the autumn-winter crop is close to being completed under very good conditions. In **India**, Rabi maize has concluded harvesting under favourable conditions. In the **US**, planting has begun in the south under favourable conditions.



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

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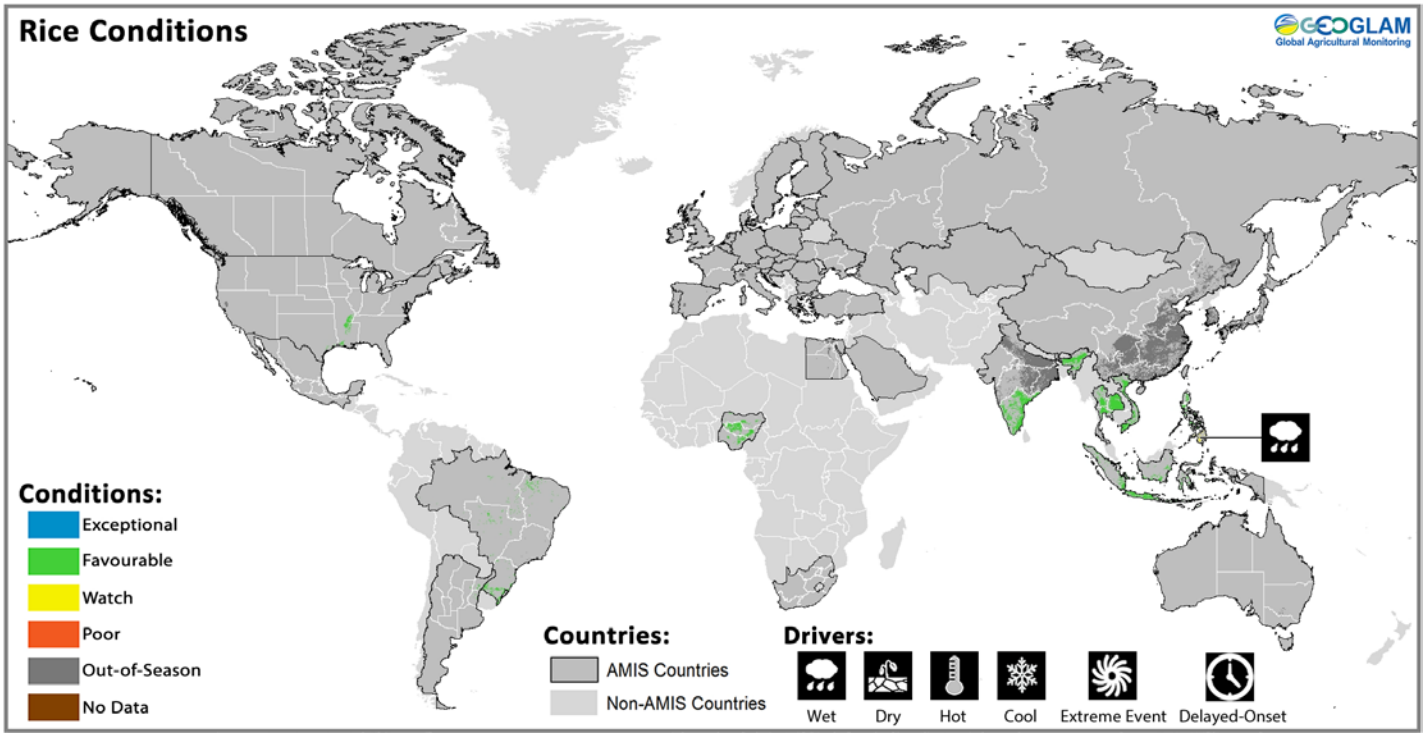
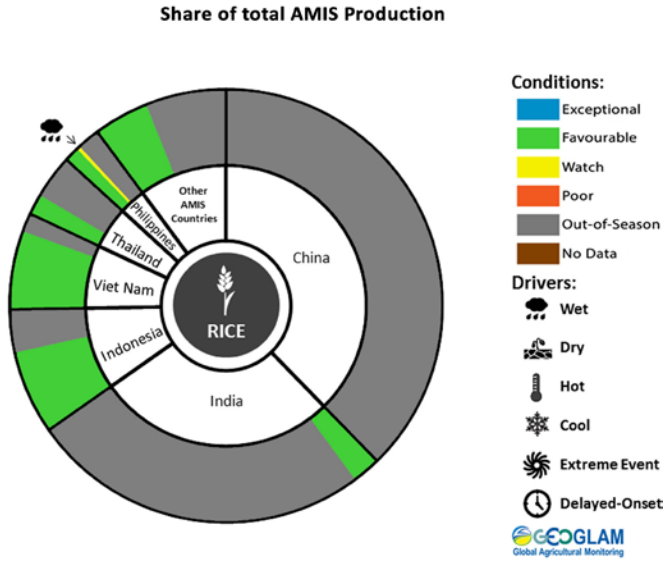
Rice Conditions for AMIS Countries



Rice crop conditions over main growing areas are based upon a combination of national and regional crop analyst inputs along with earth observation data. Condition information is based upon information as of March28th. Where crops are in other than favourable conditions the climatic drivers responsible for those conditions are displayed.

Rice: In **India**, Rabi rice is under generally favourable conditions although some areas in the south are experiencing moisture stress. In **Indonesia**, harvest is ongoing for the wet season crop with yield prospects continuing to improve owing to the later-planted rice receiving more irrigation water and sunlight than the earlier-planted crops. In **Viet Nam**, sowing in the north for dry season rice has been completed with a large increase in sown area due to warm weather and better irrigation preparation. In the south, harvesting of dry season rice and sowing of wet season rice are proceeding under favourable conditions. In **Thailand**, dry season rice is in vegetative and reproductive stages under favourable conditions owing to sufficient rainfall and irrigation water early in the season, while planted area is up from last year. In the **Philippines**, the harvesting of dry season rice has begun and the crop is under generally favourable conditions, except in the south where heavy rainfall has caused damage. In **Brazil**, conditions are favourable and the crop is in the harvesting period. In the **US**, planting has begun in the south.

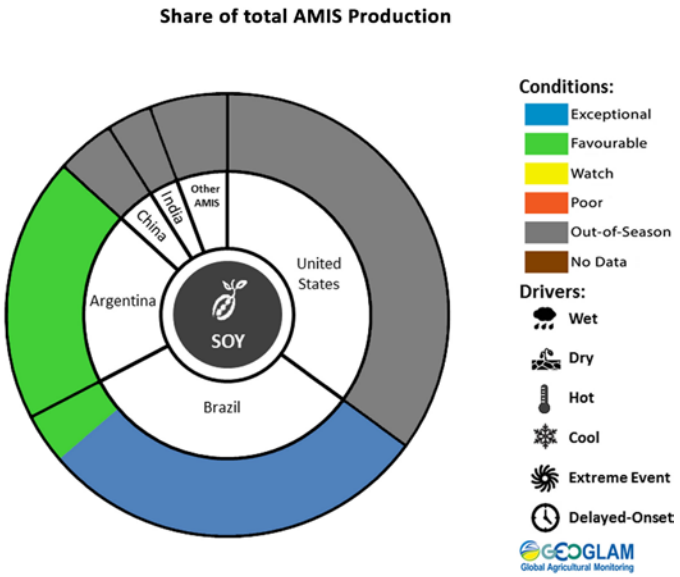


For detailed description of the pie chart please see box below.

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. Condition information is based upon information as of March28th. 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**, most areas are being harvested under exceptional conditions, with increased production prospects in the main producing areas owing to adequate water and good weather over the course of the growing season. In **Argentina**, conditions are mostly favourable across the country for both early and late-planted crops owing to continued good weather. Small areas of dryness persist outside of the main planted areas in the northwest and in the very southeast.



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 Early Warning Crop Monitor, published April 6th 2017

Pie chart description: Each slice represents a country's share of total AMIS production (5-year average). Main producing countries (representing 90 percent of production) are shown individually, with the remaining 10 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.

* Assessment based on information as of March28th

Appendix 1: Definitions

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 more than 5% below average. This is only used when conditions are not likely to be able to recover, and 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.

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

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, INTA), Asia Rice Countries (AFSIS, ASEAN+3 & Asia RiCE), Australia (ABARES & CSIRO), Brazil (CONAB & INPE), Canada (AAFC), China (CAS), EU (EC JRC MARS), Indonesia (LAPAN & MOA), International (CIMMYT, FAO, IFPRI & IRRI), Japan (JAXA), Mexico (SIAP), Russian Federation (IKI), South Africa (ARC & 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.
More detailed information on the GEOGLAM crop assessments is available at www.geoglam-crop-monitor.org
For information on country coverage and criteria:
http://geoglam-crop-monitor.org/pages/about.php?target=approach

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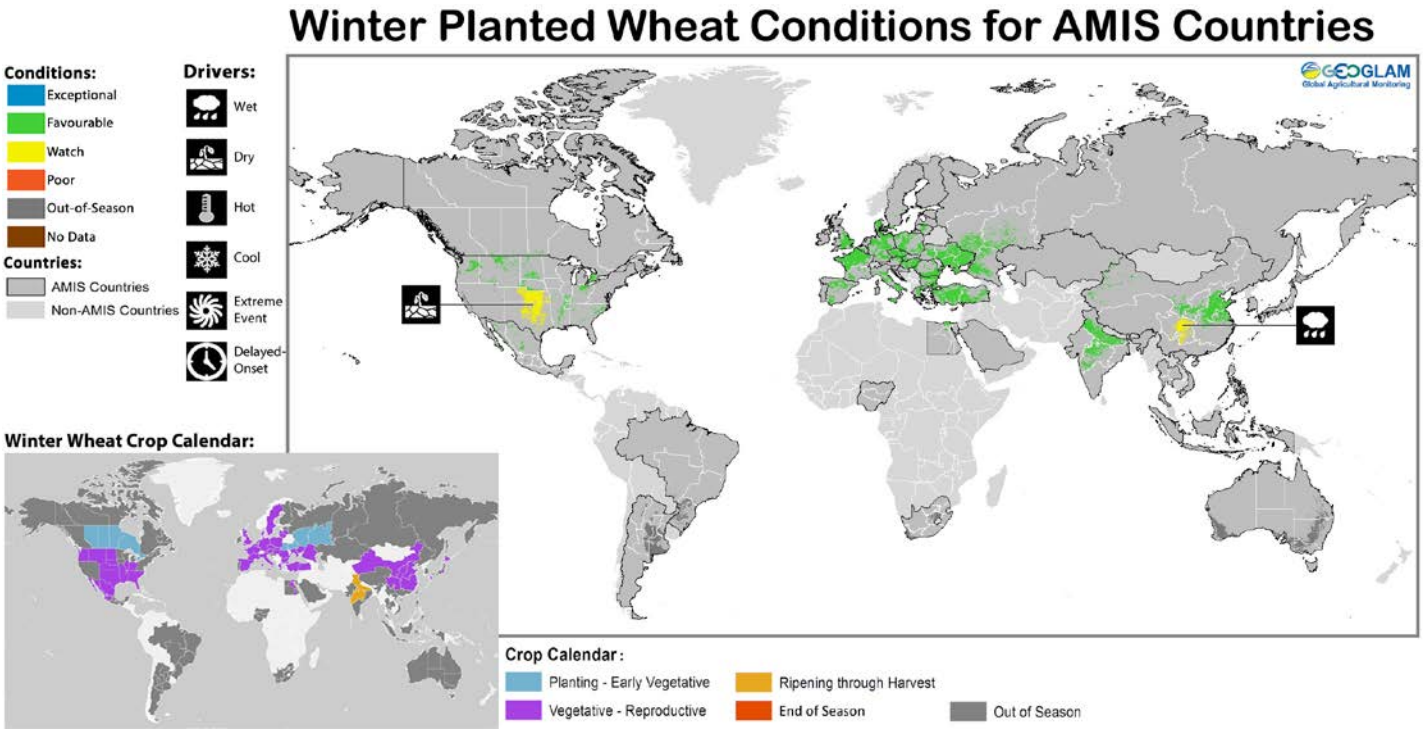
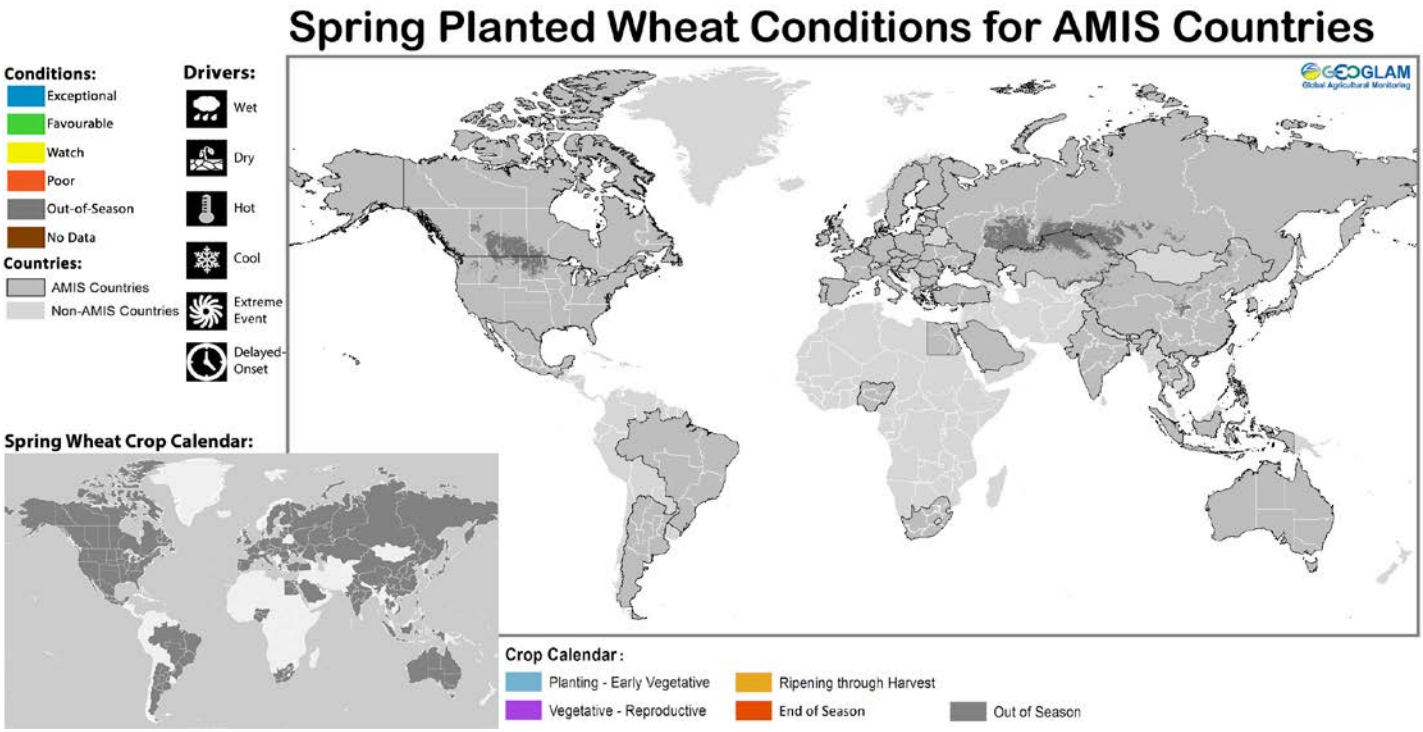
Appendix 2: Crop Season Specific Maps & Pie Charts



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. Condition information is based upon information as of March28th. 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 wheat crop conditions over main growing areas are based upon a combination of national and regional crop analyst inputs along with earth observation data. Condition information is based upon information as of March28th. 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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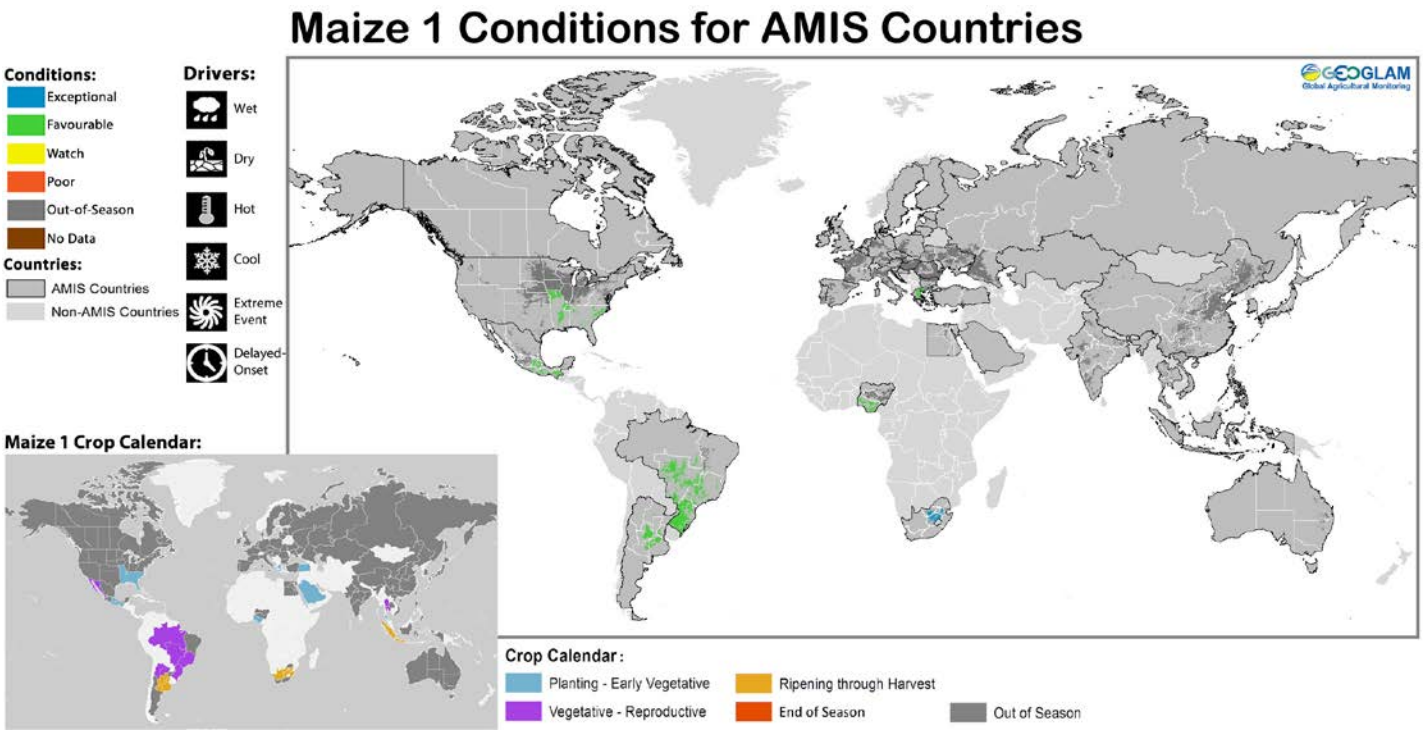

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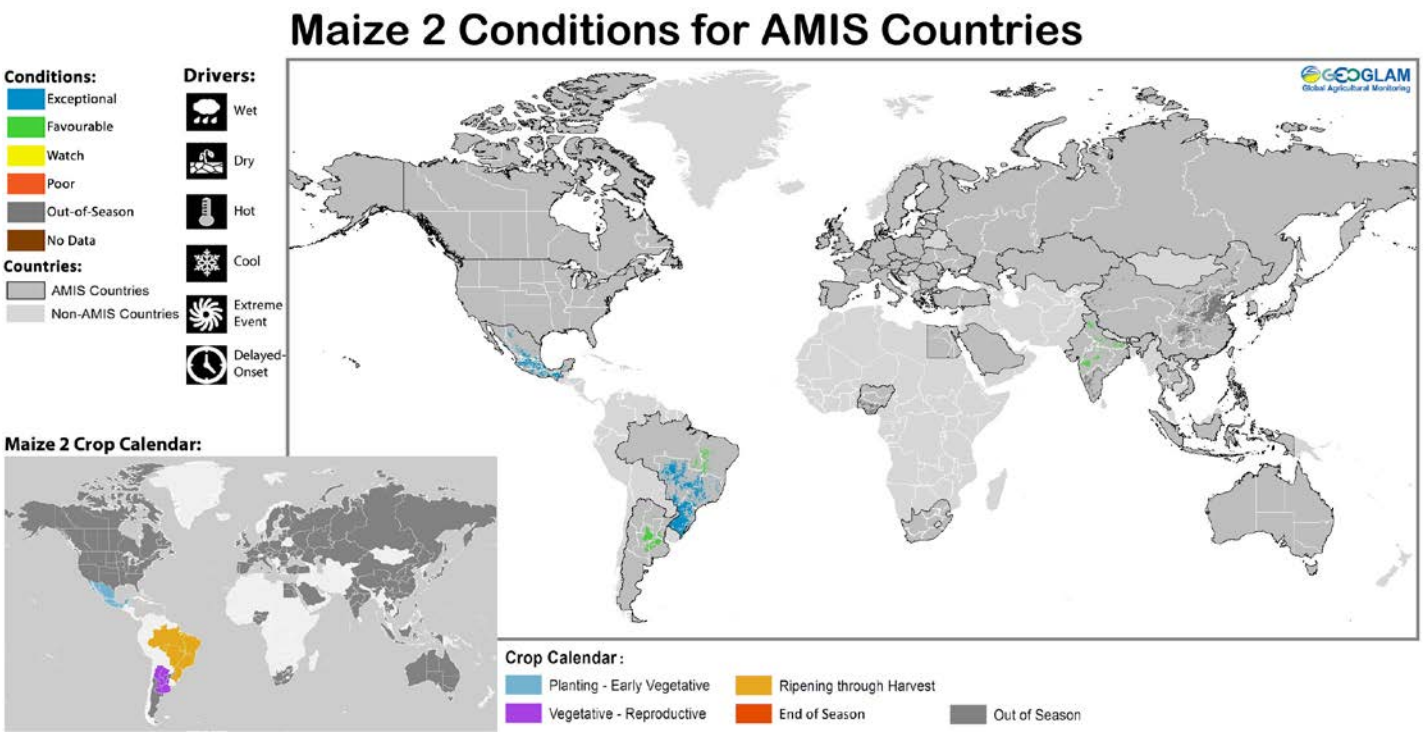

Maize2 crop conditions over main growing areas are based upon a combination of national and regional crop analyst inputs along with earth observation data. Condition information is based upon information as of March28th. Where crops are in less than favourable conditions the climatic drivers responsible 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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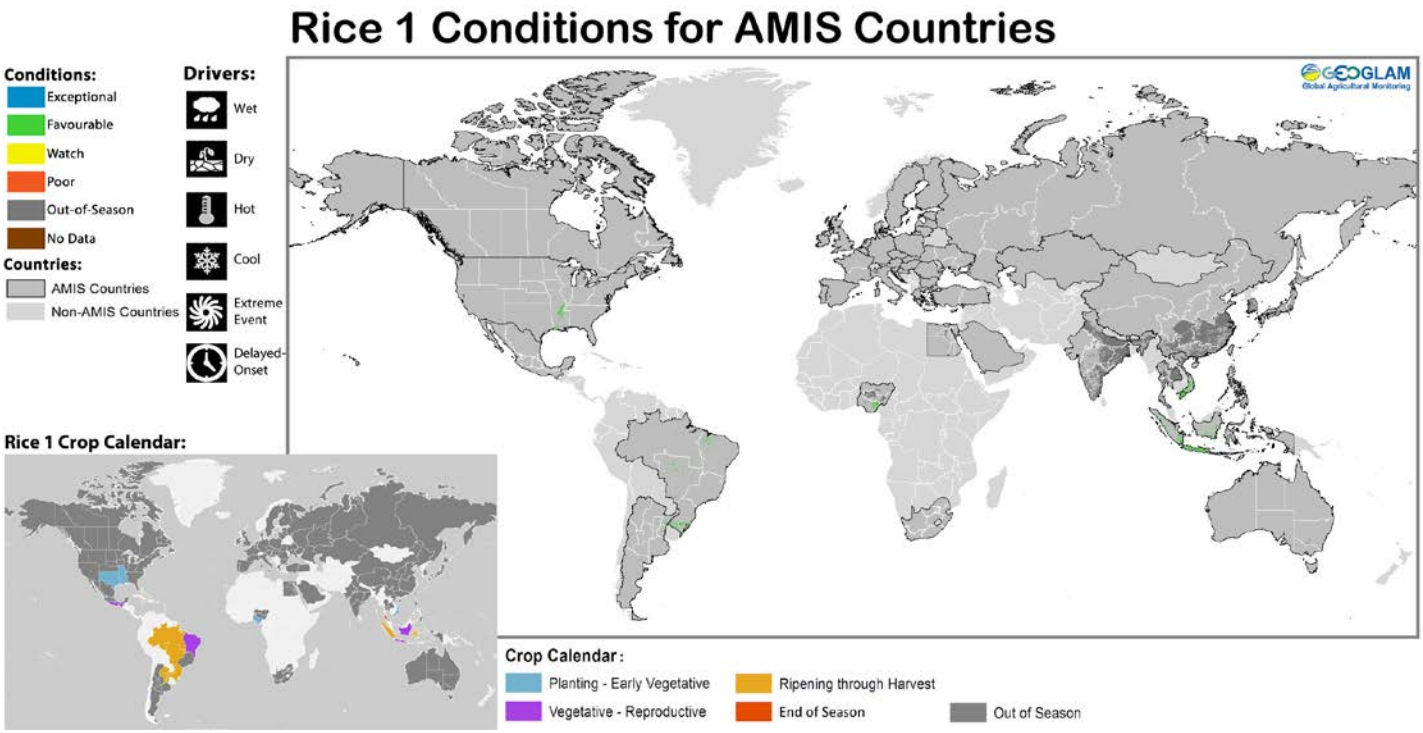

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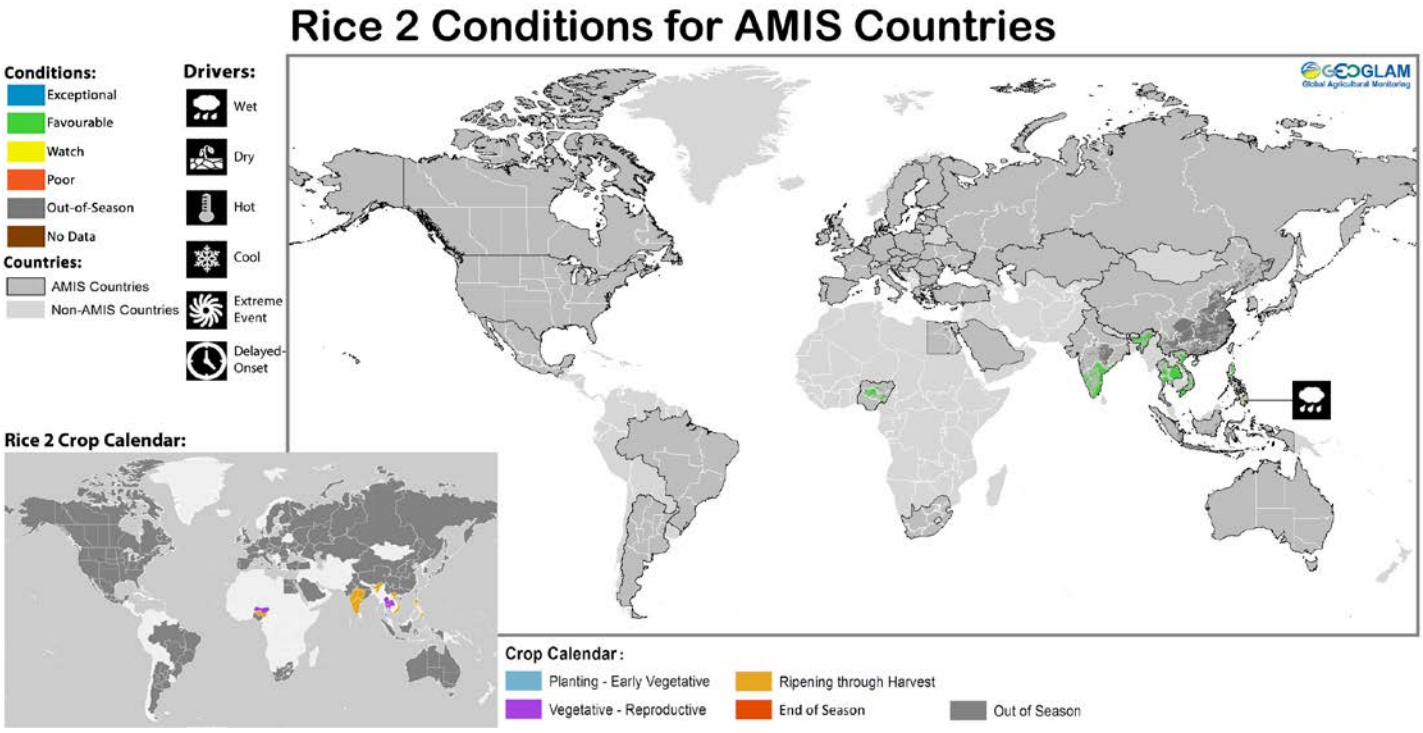

Rice 2 crop conditions over main growing areas are based upon a combination of national and regional crop analyst inputs along with earth observation data. Condition information is based upon information as of March28th. Where crops are in less than favourable conditions the climatic drivers responsible 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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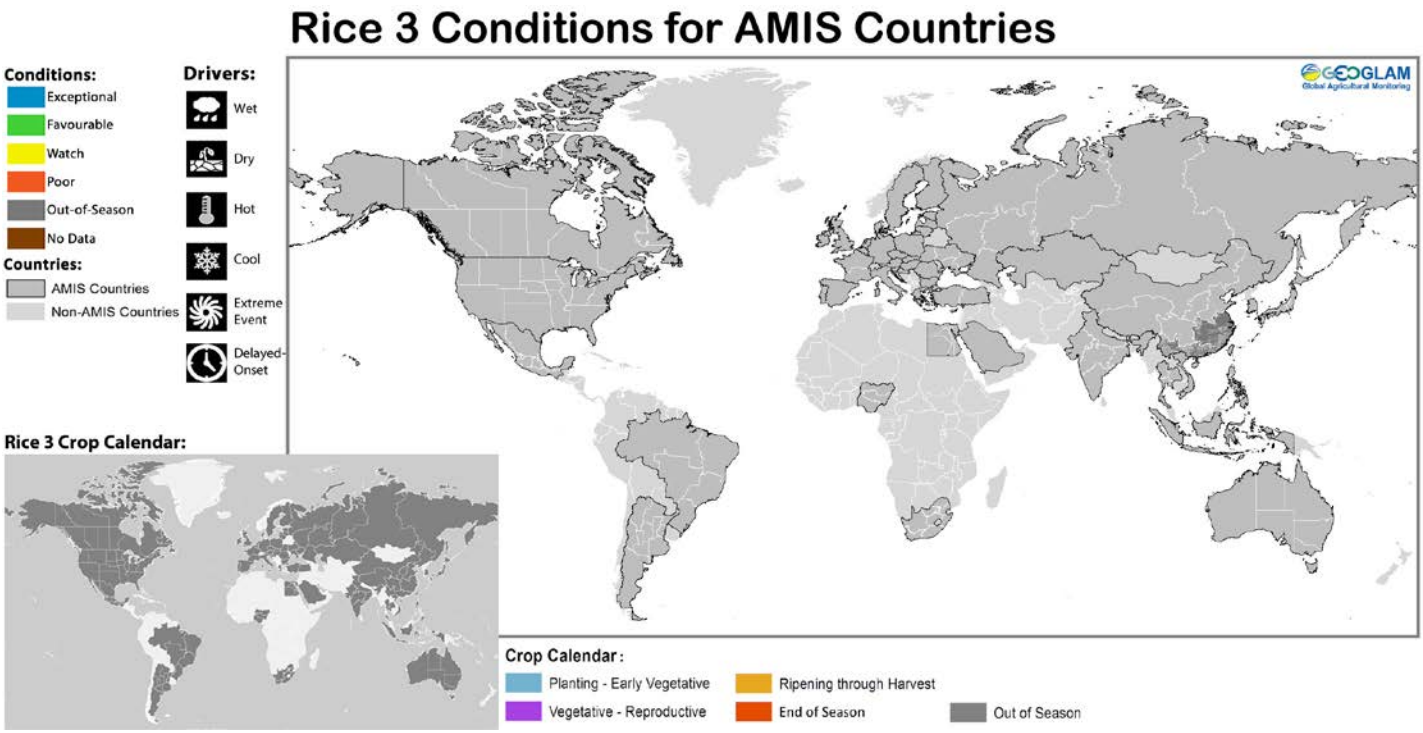
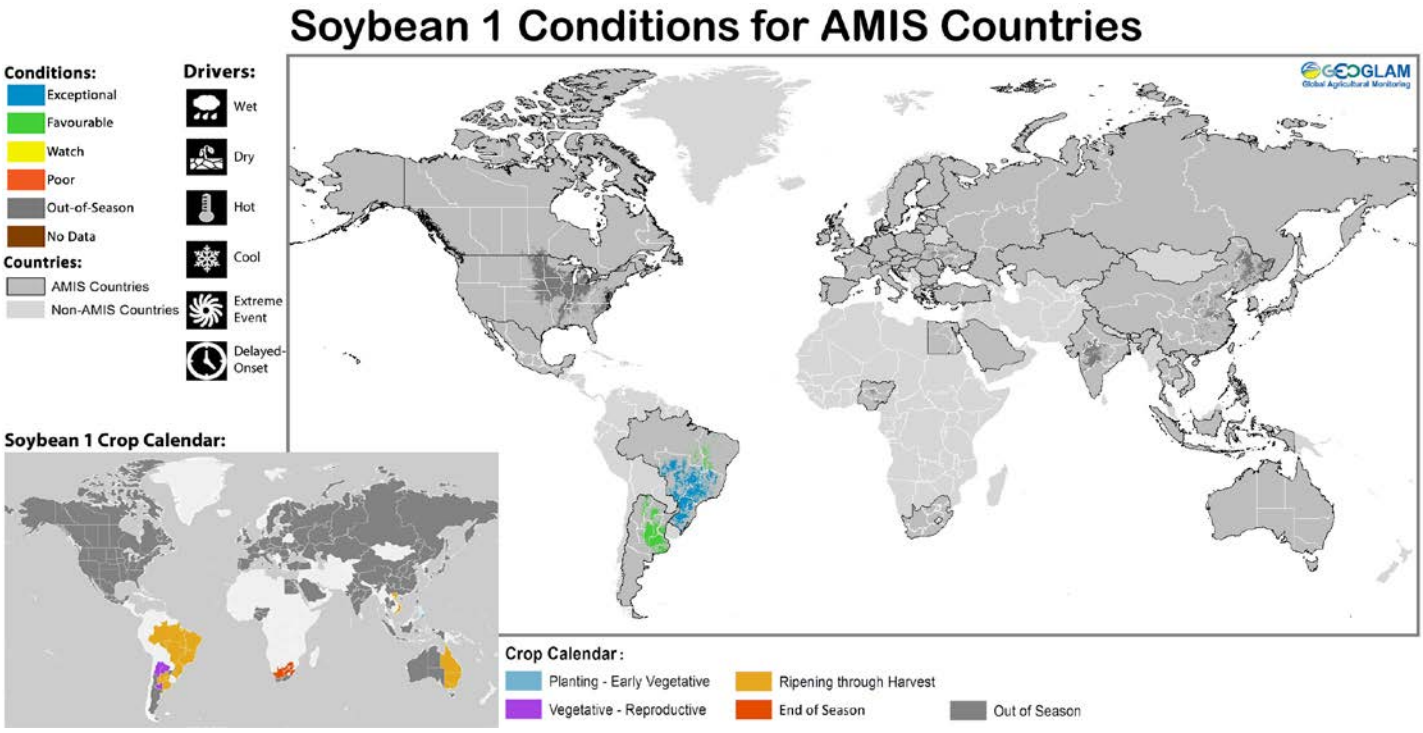
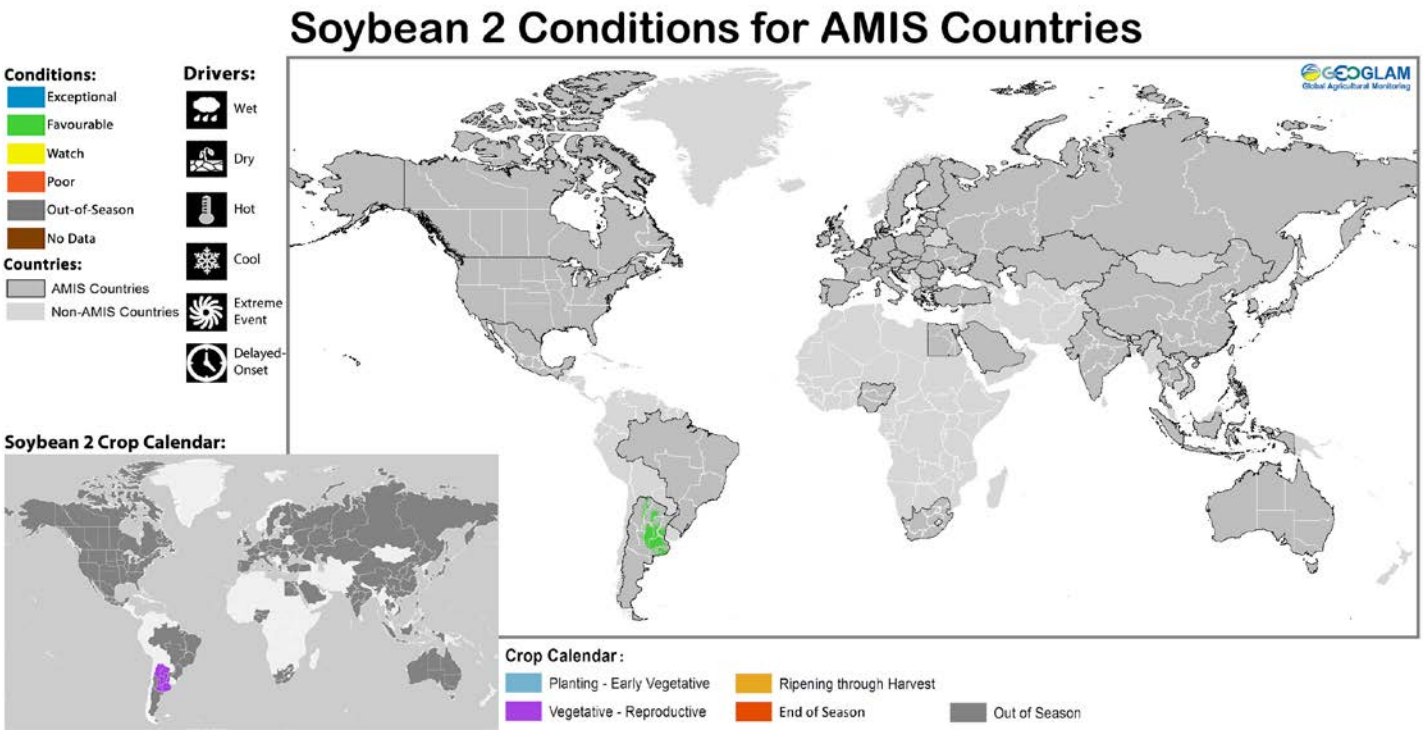


Rice 3 crop conditions over main growing areas are based upon a combination of national and regional crop analyst inputs along with earth observation data. Condition information is based upon information as of March28th. Where crops are in less than favourable conditions the climatic drivers responsible 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 crop conditions over main growing areas are based upon a combination of national and regional crop analyst inputs along with earth observation data. Condition information is based upon information as of March28th. 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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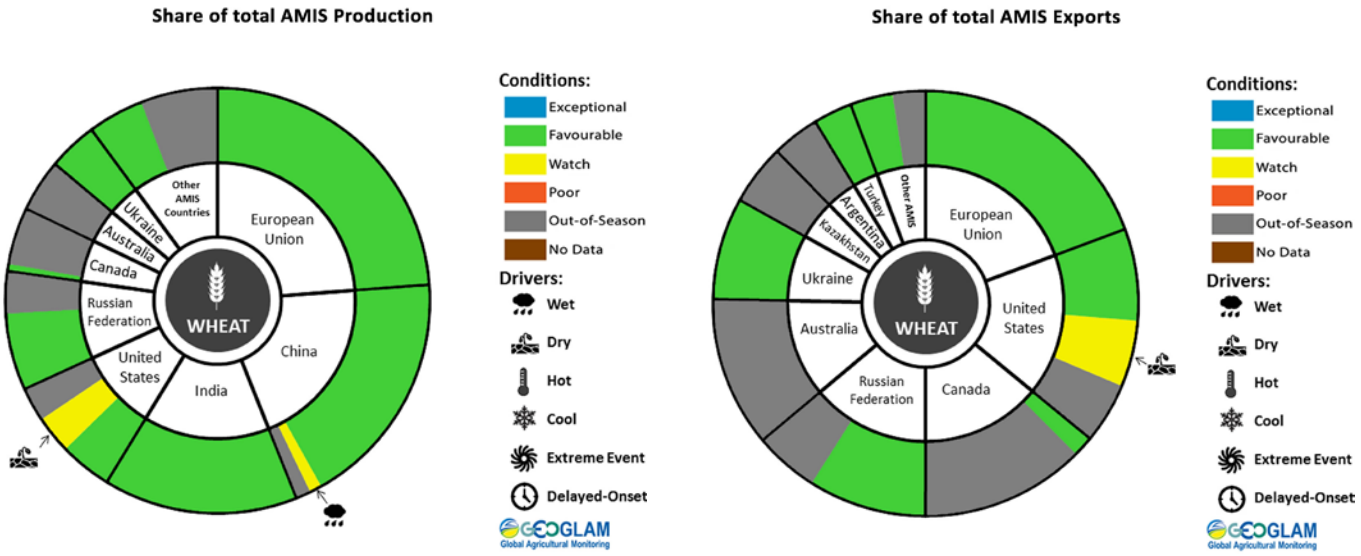
Wheat AMIS Comparisons



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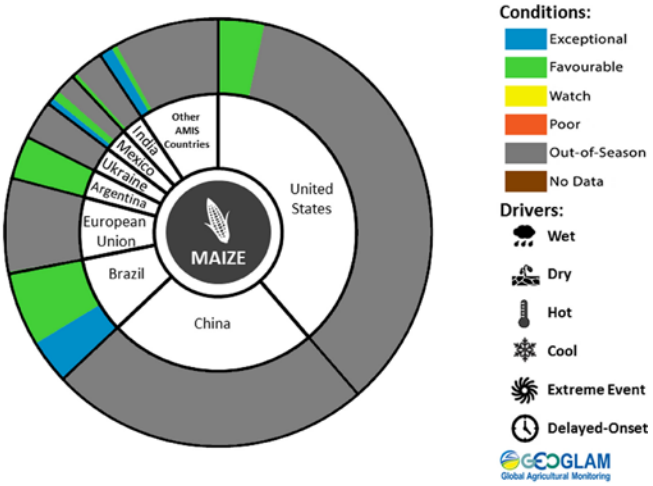
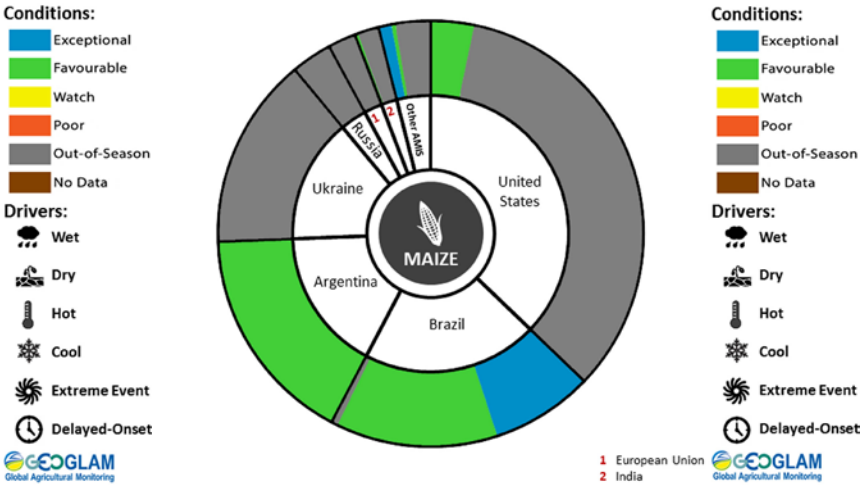
Maize AMIS Comparisons

Share of total AMIS Production





Share of total AMIS Exports

1 European Union
2 India

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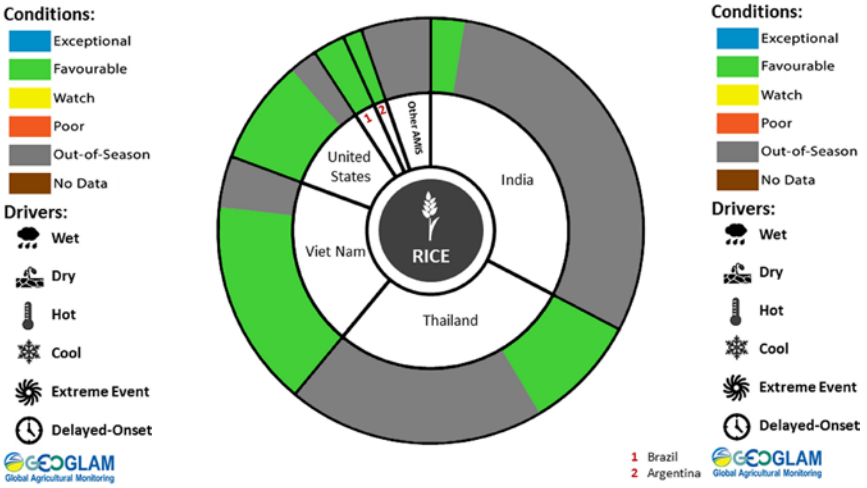
Rice AMIS Comparisons

Share of total AMIS Production



Share of total AMIS Exports

1 Brazil
2 Argentina

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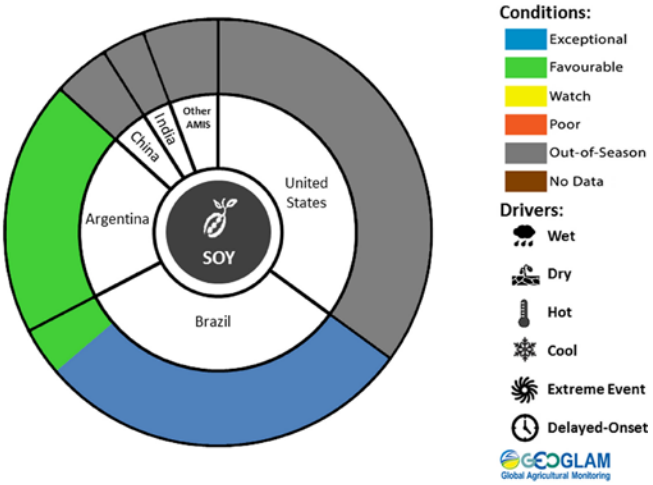
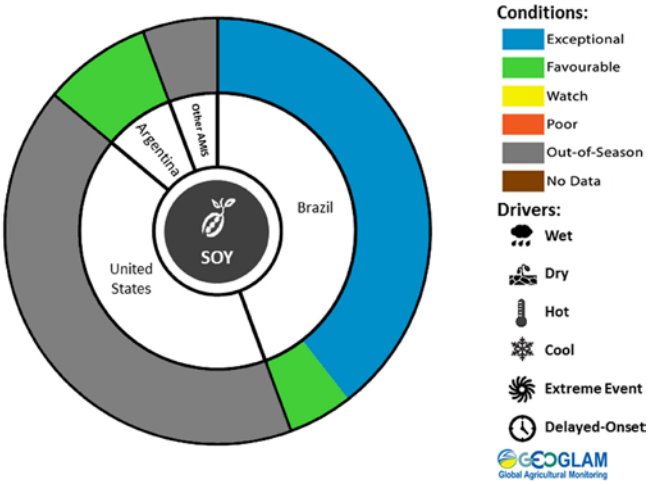
Soybean AMIS Comparisons

Share of total AMIS Production



Share of total AMIS Exports



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Prepared by members of the GEOGLAM Community of Practice
Coordinated by the University of Maryland

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

Photo by: Buenos Aires Grain Exchange

www.geoglam-crop-monitor.org

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