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.
Conditions at a glance for AMIS countries (as of June 28th)

Crop condition map synthesizing information for all four AMIS crops as of June 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. 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 harvest has begun and conditions continue to be largely favourable. Spring wheat planting is complete and conditions remain favourable at this early stage of the season. In the southern hemisphere, the winter wheat season began under favourable conditions.

**Maize** - In the northern hemisphere, planting is complete and conditions remain favourable. In the southern hemisphere conditions are mixed as the season draws to a close. Conditions continue to be favourable in Argentina, though significant concerns remain in Brazil due to dry and hot weather during the critical stages of the season, and production is expected to be down from the previous year.

**Rice** - Conditions for the new season are generally favourable in Southeast Asia with the exception of Thailand, where conditions are mixed due to limited rainfall. End of season conditions for Thailand’s and Viet Nam’s dry season crops were poor due to the impacts of El Niño experienced throughout the season.

**Soybeans** - In the northern hemisphere, conditions are favourable at this early stage of the season. In the southern hemisphere, harvest is complete in Brazil and almost complete in Argentina, except in the southern regions where conditions remain favourable.

* Assessment based on information as of June 28th
Wheat Conditions for AMIS Countries

**Wheat Conditions**

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 June 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 the **EU**, yields remain above the five-year average despite the downward revision for Germany and France, which is not completely compensated by the upward revision for Spain, Italy and Portugal. In the **US**, harvest is well underway and winter wheat conditions are very good throughout. Record yields are expected, except in Kansas, where the bulk of winter wheat is grown and is expected to be just under a record. Total production of winter wheat will not be at record due to reduced planted area. Spring wheat is in favourable conditions. In **China**, winter wheat and spring wheat conditions are favourable. Spring wheat is at heading to flowering stages in northern China. In the **Russian Federation**, winter and spring wheat conditions are favourable owing to good moisture conditions though there are some limited concerns over warmer than average temperatures. In **Canada**, winter and spring wheat conditions improved from last month though there is still concern in Alberta over winter wheat due to dry conditions and in Manitoba over spring wheat due to wet conditions. However, overall crop growth is ahead of normal and most areas are experiencing good growing conditions. In **Ukraine**, conditions remain favourable and harvest has begun in the southern regions. In **Kazakhstan**, planting is complete and conditions are favourable. In **Australia**, planting is progressing well and conditions are mostly favourable at this early stage of the season. Timely rainfall during June improved opportunities for crop germination and growth in most wheat growing regions. In Western Australia, dry conditions during June have resulted in a decline in soil moisture levels.

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

Maize: In the US, conditions are good throughout the country. In China, conditions are favourable for the spring-planted crop. The summer-planted crop is in sowing to seedling stage and conditions are favourable, though heavy rainfall in the north parts of Lower Yangtze and Huanghuaihai may negatively impact the seedling of summer maize in these areas. In Ukraine, conditions are good owing to an abundance of rainfall. In the EU, conditions remain favourable. In India, land preparation began under favourable conditions. In Mexico, harvest is ongoing for the autumn-winter cycle and could be better than last year, if favourable weather conditions are maintained. Planting for the spring-summer cycle is ongoing and adequate rainfall has allowed the normal development of crops in most parts of the country. In Canada, conditions remain favourable. In the Russian Federation, planting is complete and conditions are favourable owing to beneficial soil moisture. In Nigeria, conditions continue to be favourable throughout the country. In Brazil, conditions for the summer-planted (the larger producing season) crop continue to be mixed due to insufficient rainfall and high temperatures in April and May, which affected major producing regions during the critical stage and overall production is expected to be down. In Argentina, harvest continues to progress slowly due to the delayed planting and excess rainfall. Most of the crops that remain in the field are in very good to excellent condition.

* Assessment based on information as of June 28th
Rice Conditions for AMIS Countries

**Rice:** In **India**, planting has just begun for the kharif crop. In **China**, conditions for early, intermediate and late rice are favourable due to beneficial temperatures and sufficient rainfall. However, continuously heavy rain might adversely impact the flowering of early rice and the growth of semi-late rice but there are no negative impacts yet. Early rice is at booting to heading stage while semi-late rice is at tillering stage. In **Thailand**, harvest is complete and yields are poor for the dry season crop due to insufficient water, pest outbreaks and unfavourable weather throughout the season attributed to El Niño. Planting has begun for the wet season crop and conditions are mixed in this early stage due to minimal rainfall. In **Viet Nam**, planting of the dry season crop is complete in the northern regions and conditions are good. Harvest is almost complete for the winter-spring dry season crop in the southern areas and conditions are poor due to drought conditions. In the **US**, conditions remain favourable. In **Indonesia**, conditions continue to be favourable for the wet season crop owing to favourable rainfall. In the **Philippines**, planting continues and conditions are favourable for the wet season crop.

* Assessment based on information as of June 28th
Soybean Conditions for AMIS Countries

**Soybean Conditions**: In the **US**, planting is complete and conditions are favourable at this early stage of the season. In **Canada**, conditions remain favourable. In **China**, conditions are generally favourable and the crop is in seedling to leafing stage. In **India**, land preparation has begun. In **Argentina** harvest is almost complete and conditions remain favourable, despite significant harvest delays due to heavy rainfall in the southern regions.

*Information on crop conditions in non-AMIS countries can be found in the GEOGLAM Early Warning Crop Monitor, published July 7th 2016*

**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 slice are weighted by the sub-national production statistics (5-year average) of the respective country. The section within each national slice also accounts for multiple cropping seasons (i.e. spring and winter wheat). 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 June 28th
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 production.
- **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 June result in production impacts and they 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.)

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 & GeoTerralmage & 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](http://www.geoglam-crop-monitor.org).

For information on country coverage and criteria:

* Assessment based on information as of June 28th
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 June 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 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 June 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 June 28th
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. Condition information is based upon information as of June 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 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 June 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 June 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. Condition information is based upon information as of June 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. Condition information is based upon information as of June 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 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 June 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 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 June 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 June 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. Condition information is based upon information as of June 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.

Wheat AMIS Comparisons

* Assessment based on information as of June 28th
Maize AMIS Comparisons

Rice AMIS Comparisons

* Assessment based on information as of June 28th
For detailed description of the pie chart please see box above.

* Assessment based on information as of June 28th
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: Dave Johnson

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