# GEOGLAM Crop Monitor March 2015

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Prepared by members of the GEOGLAM Community of Practice





Crop Conditions for AMIS Countries (As of February 28<sup>th</sup>)\*

Crop condition map synthesizing information for all four AMIS crops as of February 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 less than favourable conditions are displayed on the map with their crop symbol.

## Highlights

**Wheat-** In the northern hemisphere, winter wheat conditions are generally favourable and the crop is mostly dormant. In the EU, the crop is generally in good condition. In the US, the crop is progressing normally though there is concern in the southern Great Plains due to dry conditions. In China, conditions remain favourable. In Russia and Ukraine, the crop is dormant and conditions are mostly favourable despite the earlier dry conditions during crop establishment in the fall. In India, conditions are mostly favourable.

**Maize-** In the southern and northern hemispheres, overall conditions are generally favourable. In Brazil conditions are mostly favourable. The spring-planted crop is being harvested and there is some concern due to dry conditions. Planting of the summer-planted crop is delayed. In Argentina, Mexico and India, conditions are mostly favourable. In South Africa, conditions are mixed and yield is expected to be somewhat below normal.

**Rice**- Overall conditions are favourable. In India conditions are generally favourable for the second planted crop. In China, conditions are favourable for the early season rice which is in planting to early vegetative stages. In Thailand, harvest is wrapping up for the wet season rice and prospects are good. There are however concerns over the dry season rice due to water deficiency, and planted area is significantly down relative to last year. In Vietnam and Nigeria, overall conditions are favourable. In Indonesia, Brazil and the Philippines, conditions are good.

**Soybeans-** In the southern hemisphere, conditions are favourable. In Brazil, conditions are favourable and harvest is in progress. In Argentina, conditions remain good for the first and second crops in most regions.





## 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 February 28<sup>th</sup>. 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 *northern hemisphere* winter wheat is mostly dormant and conditions are generally favourable. In the EU, the crop is generally in good condition and is well developed owing to the mild winter conditions. Only local and limited frost-kill damages may have occurred in Bulgaria, Romania, Hungary and Poland. In the US, the crop is progressing fairly normally. However, in the southern Great Plains, where much of the crop lies, it continues to be dry as it has been in recent years. Thus, concern is rising once again that the crop potential will be ultimately reduced in that region. In China, conditions remain favourable. In northern growing regions the crop is still dormant where as in central and southern regions the crop is in vegetative to flowering stages. In the Russian Federation, the crop is dormant and conditions are mostly favourable under normal weather conditions. Earlier dry conditions in the fall, and subsequent below average temperatures may have reduced crop hardiness and therefore there could be some need to re-sow in the spring though this will only be determined after snowmelt. In Canada, conditions are generally favourable for the dormant crop. In India, conditions are mostly favourable except in the northern regions where there are localized areas of moisture stress. In Ukraine,



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 area within each slice is divided between crops in-season (colour) and out-of-season (gray). The inseason portion is coloured according to the various crop conditions within that country. When conditions are labelled as 'poor' or 'watch', icons are added that provide information on the key climatic drivers affecting conditions. The coloured areas reflect conditions by area rather than overall national production.

conditions continue to be mostly favourable for the dormant crop. Earlier dry conditions in the fall and late planting may result in some limited losses and reduced productivity, though this will be assessed in spring.





# **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 February 28<sup>th</sup>. Where crops are in other than favourable conditions the climatic drivers responsible for those conditions are displayed. Crop Season Specific Maps can be found in Appendix 2.

**Maize:** In the southern hemisphere, conditions are generally favourable. In Brazil, conditions are mostly favourable. Harvest is progressing for the spring-planted crop (lesser producing season). Area is down relative to last year due to competition with soybeans, which are more profitable. There is some concern over lack of moisture in part of the Southeast, Midwest and Northeast that, although less intense than last year, has had a negative impact. Planting of the summer-planted crop (higher producing season) is ongoing, but has been delayed since this crop is planted after soybeans and soybean harvest is delayed. In Argentina, conditions remain generally favourable. The crop is in grain filling stages and is in good conditions, except for in northern La Pampa province due dryness of last weeks and in central Buenos Aires province where soil water reserves are scarce. In South Africa conditions are mixed and yield is expected to be below normal due to hot and dry



Top producers of maize within AMIS participating countries and their current crop conditions (as of February  $28^{th}$ ). (The description is as for wheat)

conditions during February over both white and yellow maize production regions. Recent and expected widespread thundershowers will have some positive impact in certain areas while the damage in other areas is irreversible. In the *northern hemisphere*, conditions are favourable. In **Mexico**, favourable crop conditions continue throughout the country. Harvest of the spring-summer cycle is coming to a close with good prospects. Sown area for the autumn-winter cycle is up compared to the previous year, especially in the northeast region, where sufficient water for irrigation is available. In **India**, harvest continues and conditions are mostly favourable. There remains some localized concern in a small area of the southern region due to moisture stress.





# **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 February 28<sup>th</sup>. Where crops are in other than favourable conditions the climatic drivers responsible for those conditions are displayed.

**Rice:** Conditions are favourable. In India, conditions are favourable for the second season crop; however, there are some concerns over moisture stress in the central region. In China, conditions are favourable for early season rice, which is in planting to early vegetative stages. In Thailand, harvest is wrapping up for the wet season rice and prospects are good owing to favourable precipitation. Dry season rice conditions are mixed due to water deficiency in the central and eastern regions, and planted area is significantly down relative to last year. In Vietnam, overall conditions are favourable. Harvest is progressing for the wet season rice in southern regions, and conditions are similar to last year. The dry season rice is being sown in the Northern provinces, earlier than last year owing to warmer weather and good irrigation. In Indonesia, conditions are good for the wet season crop, owing to



Top producers of rice within AMIS participating countries and their current crop conditions (as of February  $28^{th}$ ). (The description is as for wheat)

favourable sunlight and water availability for irrigation. The crop is in vegetative to maturity stages. In **Brazil**, harvest has begun and conditions are good owing to favourable weather conditions. In the **Philippines**, dry season rice conditions are generally still good in the majority of the country. There is some localized concern over dry conditions in the central region and flooding in the southern region. The crop is entering maturity to harvesting stages. In **Nigeria**, conditions are favourable for irrigated rice.





## **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 February 28<sup>th</sup>. 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 the *southern hemisphere*, conditions are favourable. In **Brazil**, conditions are favourable and harvest is in progress. Despite previous issues with the lack of rain in part of the Southeast, Midwest and Northeast the national average productivity increased compared to last year. With higher planted area, the national production may have a significant increase relative to last year. In **Argentina**, conditions remain good in most regions. The first crop is in grainfilling stages and the second crop is in flowering stages. There are some limited localized areas affected by lack of rain, where the crop is in belowaverage conditions.



Top producers of soy within AMIS participating countries and their current crop conditions (as of February  $28^{th}$ ). (The description is as for wheat)

# **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 may or may not 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 (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), Russia (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 multi-agency report are consensual statements from the GEOGLAM experts, and do not necessarily reflect those of the individual agencies represented by these experts. Map data sources: Major crop type areas based on the IFPRI/IIASA SPAM 2005 beta release (2013), USDA/NASS 2013 CDL, 2013 AAFC Annual Crop Inventory Map, GLAM/UMD, GLAD/UMD, Australian Land Use and Management Classification (Version 7), SIAP, ARC, and JRC. Crop calendars based on GEOGLAM partner crop calendars and USDA crop calendars.

More detailed information on the GEOGLAM crop assessments is available www.geoglam-crop-monitor.org. For more information regarding on the new crop monitor and pie charts: http://www.geoglam-crop-monitor.org/content/about-geoglam-crop-monitor.

# **Conditions:** Exceptional Favorable Watch Poor Out of Season No Data



**Extreme Event** 







# **Appendix 2: Crop Season Specific Maps**



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 February 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. Condition information is based upon information as of February 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 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 February 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**

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 February 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 1 Conditions for AMIS Countries**

GEOGLAM



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 February 28th. Where crops are in less than favourable conditions the climatic drivers responsible for those conditions are displayed. The crop calendar is provided as a point of reference to provide information on what part of the life cycle the crops are currently in for each area.



# **Rice 2 Conditions for AMIS Countries**

Rice 2 crop conditions over main growing areas are based upon a combination of national and regional crop analyst inputs along with earth observation data. Condition information is based upon information as of February 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 1 Conditions for AMIS Countries**

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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 February 28th. Where crops are in less than favourable conditions the climatic drivers responsible for those conditions are displayed. The crop calendar is provided as a point of reference to provide information on what part of the life cycle the crops are currently in for each area.



**Soybean 1 Conditions for AMIS Countries** 

Soybean 1 crop conditions over main growing areas are based upon a combination of national and regional crop analyst inputs along with earth observation data. Condition information is based upon information as of February 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 Conditions for AMIS Countries**





Soybean 2 crop conditions over main growing areas are based upon a combination of national and regional crop analyst inputs along with earth observation data. Condition information is based upon information as of February 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.

