GEOGLAM Crop Monitor*
April 2014

No. 7

* Assessment based on Information as of March 28th

Prepared by members of the GEOGLAM Community of Practice
Wheat:

*Crop Monitor is developed for AMIS by GEOGLAM. It summarizes latest conditions (as of March 28th) for AMIS crops based on regional expertise and analysis of satellite data, ground observations, and meteorological data. More detailed information on the GEOGLAM crop assessments is available on: [www.geoglam-crop-monitor.org](http://www.geoglam-crop-monitor.org)*
Maize:

**MAIZE (major growing regions in AMIS Countries)**

NDVI anomaly image (NASA MODIS) depicting vegetative growth anomalies on March 28th 2014 over the main corn growing areas. (The legend is as for wheat above).

In the southern hemisphere conditions are variable. In **Argentina** overall conditions are good and the majority of the crop is in grain filling to maturity phases. Excessive moisture is reported in some areas and is slowing harvest progress. In **Brazil** the first crop’s harvest is underway and production will likely decrease due to persistent dry conditions in most of the southern producing areas and due to excess wetness in center western regions. For the second crop, overall prospects are still unclear due to extreme variations in rainfall affecting soil moisture and in turn influencing planting calendars. In addition, another drop in planted area is likely in favor of cotton and wheat in Mato Grosso and Paraná. In **South Africa** conditions during the austral summer were favourable over most of the maize production area. However, a late start to the season and a dry spell during January had a slight negative impact over the western part of the production area. In **Mexico** favourable conditions prevail for the whole country with the exception of the Northwest region, where strong winds impacted some plantations. Planted area is down relative to last March in favor of more profitable crops. In the **US** planting has yet to begin except in the most southern regions. Some planting delays are expected given the longer than usual winter, which was experienced countrywide.
Rice:

**RICE (major growing regions in AMIS Countries)**

NDVI anomaly image (NASA MODIS) depicting vegetative growth anomalies on March 28th 2014 over the main rice growing areas. (The legend is as for wheat above).

Conditions are generally favourable. In **Indonesia**, conditions are favourable for the fall planted crops that are in the reproductive to harvesting stages depending on planting date. For most growing regions rainfall in March has been slightly below average though is sufficient to support crop development. However, there is some concern in Java over excess moisture and flooding. In **Vietnam** prospects for the fall-winter rice is slightly lower than last year due in part to cold weather in the north. Seeding of the winter-spring rice is nearly complete and conditions so far are favourable although planted area is down due to the cold weather in the north. Rice in the Mekong River Delta, which accounts for a third of planted area, is in the flowering to ripening stages and conditions are good. In **Thailand** overall prospects for the fall-winter planted crop are poor primarily due to cold weather earlier in the season and due to lack of irrigation water. Harvest is complete in the north and central regions, and due to the lack of moisture planted areas for the spring-planted crop are down. In **Brazil** conditions are good as weather has been favourable in all producing areas. Both area and yield are slightly higher relative to the previous year and harvest is half complete. In **Spain** overall conditions are favourable in terms of water availability and temperature for the preparation of the paddy fields and the initiation of rice planting.
Soybeans:

**SOYBEANS (major growing regions in AMIS Countries)**

NDVI anomaly image (NASA MODIS) depicting vegetative growth anomalies on March 28th 2014 over the main soybean growing areas. (The legend is as for wheat above).

In the southern hemisphere conditions are variable. In **Argentina** overall conditions for both the first and second planted crops are good. The first crop is mostly in grain filling to maturity stages, and the first fields have been harvested. End of season diseases are reported but were controlled. The second crop (planted after winter crops) is in flowering to grain filling stages. In **Brazil** conditions are mixed. The increase in planted area was counter balanced by lower yields, which were reduced due to severe drought and high temperatures in the southern areas and excess rain in Mato Grosso that is impacting harvest. Nevertheless a bumper crop is still expected primarily due to the increase in planted area. In **South Africa** conditions during austral summer were favourable across all production areas.

**Sources & Disclaimer**
The Crop Monitor assessment has been conducted by GEOGLAM with inputs from the following partners (in alphabetical order): AAFC (Canada), CAS CropWatch (China), ARC (South Africa), ABARES/CSIRO (Australia), CONAB/INPE (Brazil), GISTDA (Thailand), EC JRC-MARS, FAO, ISRO (India), JAXA (Japan), ASIA RICE, IKI (Russia), INTA (Argentina), IRRI, LAPAN/ MOA (Indonesia), Mexico (SIAP), NASA, UMD, and USDA FAS/ USDA NASS (US), Ukraine Hydromet Center/NASU-NSAU (Ukraine), VAST/VIMHE (Vietnam).

The findings and conclusions found in this joint multiple-agency reporting are only consensual statements from the GEOGLAM expert group, and do not necessarily reflect those of the individual Agencies represented by these experts.

El Niño

El Niño (the anomalous warming of the Pacific Ocean) is a major driver of climatic conditions in many regions of the world, and can significantly impact growing conditions positively or negatively in these places. Its strength and timing determines the degree to which croplands are affected and the crop types impacted. While neutral conditions currently prevail, official reports from around the world (including the World Meteorological Organization (WMO), the International Research Institute for Climate and Society (IRI), the U.S. National Oceanic and Atmospheric Administration (NOAA), and The Australian Bureau of Meteorology), indicate the possibility for development of El Niño conditions in late summer or autumn of the Northern Hemisphere. The official forecast from NOAA puts the probability of El Niño at 52%. The predicted timing of the possible transition from neutral to El Niño conditions suggests minimal influence on northern summer crops in 2014, and the possibility of an influence during the latter part of the Indian Monsoon. El Niño is often, but not always, associated with above normal rainfall in major growing regions of S. America and the US (potentially benefiting maize, soy and wheat) and with below-normal rainfall in parts of Asia, Southern Africa, and Australia (potentially affecting rice, wheat and maize). El Niño conditions generally last six to nine months, but can persist for as long as eighteen months. In the months ahead, GEOGLAM will closely watch regions that have shown sensitivity to El Niño in the past and monitor possible impacts should El Niño conditions develop.
Global Temperature and Precipitation Anomalies: February 21st – March 10th

JRC- MARS

**TEMPERATURE SUM**

from: 21 February 2014
to: 10 March 2014

Deviation:

Year of interest - LTA
Base temperature: 0

**RAINFALL**

Cumulated values

from: 21 February 2014
to: 10 March 2014

Deviation:

Year of interest - LTA