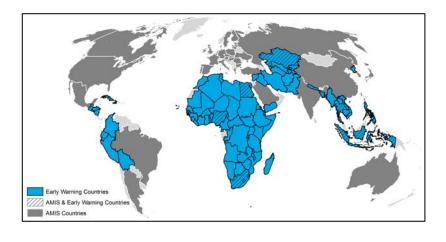
CROP MONITOR FOR EARLY WARNING

NO. 15 April 2017

The Crop Monitor for Early Warning brings together international, regional, and national organizations monitoring crop conditions within countries at risk of food insecurity. The focus is on developing timely consensus assessments of crop conditions, recognizing that reaching a consensus will help to strengthen confidence in decision making. The Early Warning Crop Monitor grew out of a successful collaborative relationship, the AMIS Crop Monitor (www.amis-outlook.org/), which monitors the main producing countries.





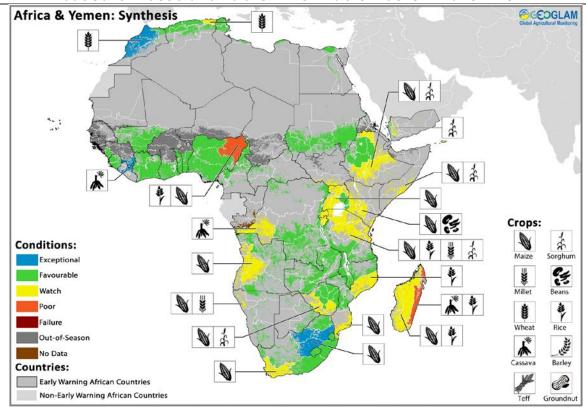






GEOGLAM Crop Monitor for Early Warning

Crop Conditions at a glance based on best available information as of March 28th



Crop condition map synthesizing information for all Crop Monitor for Early Warning crops as of March 28th. Crop conditions over the main growing areas are based on a combination of inputs including remotely sensed data, ground observations, field reports, national, and regional experts. **Regions that are in other than favourable conditions are labeled on the map with a symbol representing the crop(s) affected.**

EAST AFRICA: Delay of onset rains and early season dryness at the start of the Belg season in Ethiopia and long rains in Kenya are worsening concerns over insecurity already present from the failure of the previous season. In Tanzania and Uganda, dry conditions and pest outbreaks for the ongoing main season are impacting crops now in vegetative stage.

WEST AFRICA: The main season is starting up across southern West Africa and conditions are favourable with good rains received across all areas. Ongoing irrigated rice conditions are favourable with sufficient water and good temperatures received.

CENTRAL AND SOUTH ASIA: Across Central and South Asia winter wheat is underway and conditions are generally favourable despite some concern in localized areas due to dry conditions.

MIDDLE EAST AND NORTH AFRICA: Across the Middle East winter wheat crops are now in vegetative stage and there is concern over the northern areas from delayed start of season and dry conditions. Across North Africa conditions are favourable for the main season wheat and barley crops.

SOUTHERN AFRICA: Localized dry conditions in March over Angola, Namibia, Democratic Republic of Congo and Mozambique while flood impacts from tropical storm Enawo impacted crops in Madagascar. Heavy rainfall from Cyclone Dineo, and persistent heavy rains from earlier in the season negatively affected crops in Mozambique and southern Zimbabwe. Armyworm outbreaks in Zambia and South Africa have been controlled however concern remains in southern parts of Zimbabwe. In South Africa conditions are exceptional with good harvests expected. Conditions are favorable in most countries due to the predominantly good rains for much of the season.

SOUTHEAST ASIA: Across northern Southeast Asia, conditions for dry season rice are favourable with increases in total planted area due to sufficient irrigation water. In southern Southeast Asia, harvesting is underway for wet season rice and yield prospects have improved.

CENTRAL AMERICA & CARIBBEAN: The Apante season is complete in Guatemala and Nicaragua with good harvests across the region.

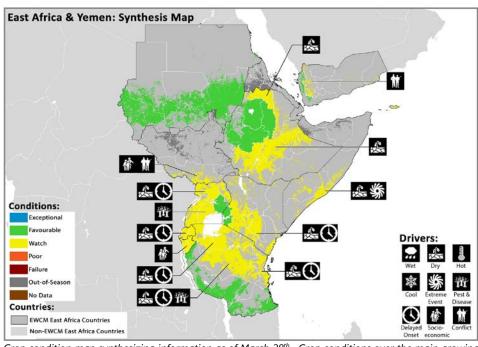
Update: Fall armyworm infestation across Southern Africa

Outbreaks of the non-native fall armyworm confirmed last month across 7 countries in the southern Africa region are under control in many areas. Assessments are ongoing or planned in a few countries in order to determine the extent of the impact. In Zambia, it has been estimated that twenty percent of the maize planted area was affected by armyworm outbreaks but control operations were able to mitigate the severity of the impact.





East Africa and Yemen

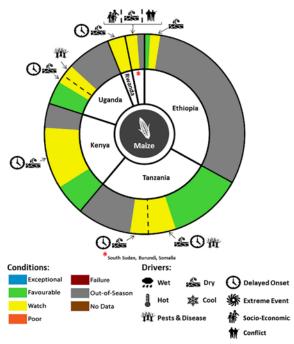


Crop condition map synthesizing information as of March 28^{th} . Crop conditions over the main growing areas are based on a combination of inputs including remotely sensed data, ground observations, field reports, national, and regional experts. **Conditions that are other than favourable are labeled on the map with their driver.**

Delay of onset rains and early season dryness at the start of the Belg season in Ethiopia and long rains in Kenya are worsening concerns over insecurity already present due to the failure of the previous season. In Tanzania and Uganda, dry conditions and outbreaks for the ongoing main season are impacting crops now in vegetative stage. In Ethiopia, there is concern for the ongoing maize sorghum and crops due to early-season dryness. In most Belg receiving areas, where rains normally start in February, conditions prevailed, and cumulative rainfall is up to 65 percent below average. Similarly, in northern areas, where Diraac/Sugum rains, normally start in March, early season dryness is reported. In bimodal rainfall areas of South Sudan, despite a timely onset of rains in March production prospects for the first season harvest are uncertain, as widespread insecurity caused massive population displacement and depletion

of productive assets. Weather forecasts point to-above average rainfall in southeastern areas and below average rainfall in southwestern areas. In **Sudan**, harvests are wrapping up for winter wheat crops planted in November and conditions are favourable with good harvests projected due to good rains and temperatures throughout the growing season.

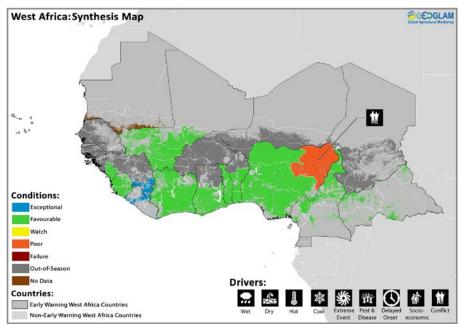
In Kenya, land preparation is underway for the start of the main long rains season and there is already concern due to early season dryness in March; however, in these areas, rains typically establish in April. In **Uganda**, seasonal rains have been timely and adequate over most cropping areas; however, there is concern over the performance of the first season harvest in western and central parts due to localized early season dryness and to army worm outbreaks impacting maize crops in 20 districts with crop losses of over 10 percent projected. In **Somalia**, seasonally dry conditions prevail, as *Gu* rains normally establish in mid-April. However, there is already concern over the performance of the upcoming Gu harvest due to weather forecasts pointing to below-average precipitation and to the carryover negative impacts of the failed Deyr season, including drought related displacements, lack of seeds due to consumption and depletion of productive assets due to negative coping mechanisms. In Tanzania, there is concern for the performance of the Msimu harvest in central unimodal areas, as improved rains in February and March were not sufficient to offset the moisture deficits caused by exceptionally dry conditions in January and December. By contrast in the main producing areas of the South, the good rainfall in February and March has significantly improved vegetation conditions and crop prospects. In northern and eastern bi-modal rainfall areas, land preparation and planting operations of Masika crops benefited from an early onset of seasonal rains



during the third dekad of February. In these areas, however, according to weather forecasts, the remainder of the rainy season is likely to be characterized by below average precipitation. In **Rwanda**, there is concern for main season maize due to delayed onset of the main season rains in March. In **Burundi**, despite good rains received in March, prospects for the main B season are uncertain, with the delayed A secondary harvest likely to have a carryover negative impact, as planting operations will be delayed by the harvest of A season crops and several households had to eat or sell seeds during the prolonged lean season.

In Yemen, persisting conflict has increased cost of inputs and impacts agricultural practices across all regions.

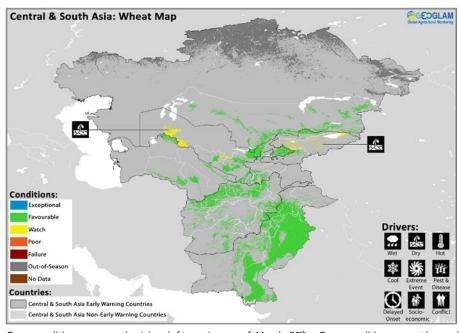
West Africa



The main season is starting up across southern West Africa and conditions are favourable with good rains received across all areas. Ongoing irrigated rice conditions are favourable with sufficient water and good temperatures received. In **Nigeria**, while conditions are favourable concern remains in the northeast over Adamawa, Borno, Gombe, Yobe, and Bauchi where ongoing conflict continues to severely impact agricultural practices.

Crop condition map synthesizing information as of March 28th. Crop conditions over the main growing areas are based on a combination of inputs including remotely sensed data, ground observations, field reports, national, and regional experts. **Conditions that are other than favourable are labeled on the map with their driver.**

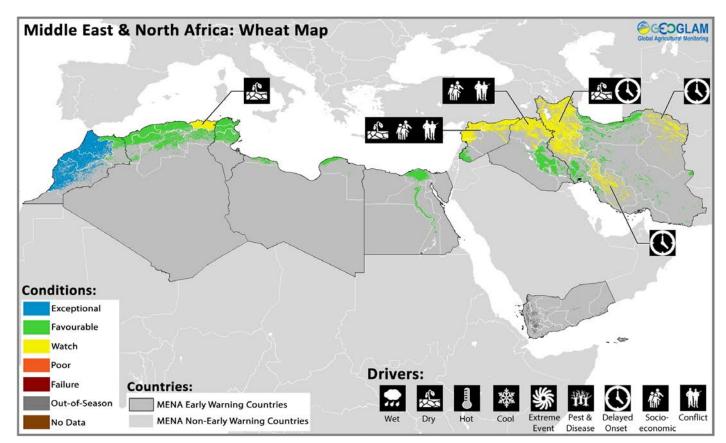
Central and South Asia:



Crop condition map synthesizing information as of March 28th. Crop conditions over the main growing areas are based on a combination of inputs including remotely sensed data, ground observations, field reports, national, and regional experts. **Conditions that are other than favourable are labeled on the map with their driver.**

Across Central Asia and South Asia winter wheat is underway and conditions are generally favourable despite some concern in localized areas due to dry conditions. In Kazakhstan, spring wheat planting is underway in the South and conditions are favorable. In Tajikistan, conditions are favourable with good rains received in March supporting growth. In Kyrgyzstan, conditions are generally favourable for winter wheat however, there is concern in Central area with poor precipitation in March however this area accounts for small percentage of total wheat production. In Turkmenistan, conditions are favourable with good rains received. In Uzbekistan, conditions in the highlands and plains are favourable however there is some concern in the lowlands and low plateaus due to dry conditions affecting winter wheat. Afghanistan, winter wheat conditions are favourable despite some dryness in the North in early March. In Pakistan, conditions are favourable and prospects are good for winter wheat harvests starting in April.

Middle East and North Africa:

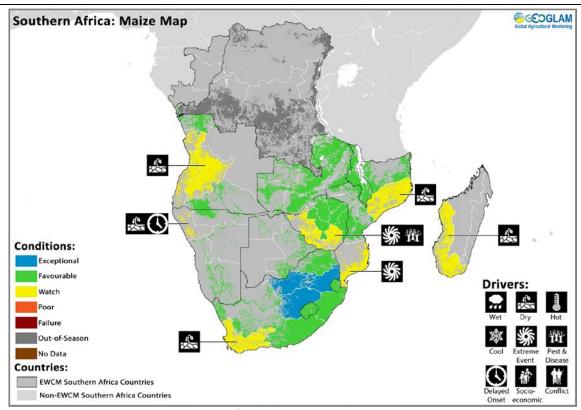


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Across the Middle East winter wheat crops are now in vegetative stage and there is concern over the northern areas due to delayed start of season and dry conditions. In **Iraq**, conditions are generally favourable for winter wheat except in the North where there is concern over conflict impacting agricultural practices. In **Iran**, conditions are generally favourable in the South for winter wheat however in the North there is concern over delay of onset rains and erratic rainfall since January. In **Syria**, there is concern in the North over conflict and dry conditions affecting winter wheat crops.

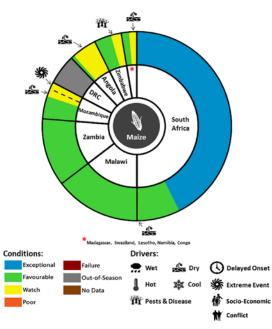
Across North Africa conditions are favourable for the main season wheat and barley crops. In **Algeria**, conditions are generally favourable with good soil moisture levels due to abundant rainfall in the first 3 months of the year. Only in the North East rainfall distribution has been less regular and more rainfall is needed for a normal continuation of the season. In **Morocco**, conditions are exceptional with good rains received and cereals yield expectations estimated at 20% above the 5 year average. In **Tunisia**, conditions remain favourable despite low rainfall in February and March. In **Egypt** and **Libya**, rainfall has been below average in early 2017, but most cereals are irrigated and yield forecasts are close to normal.

Southern Africa



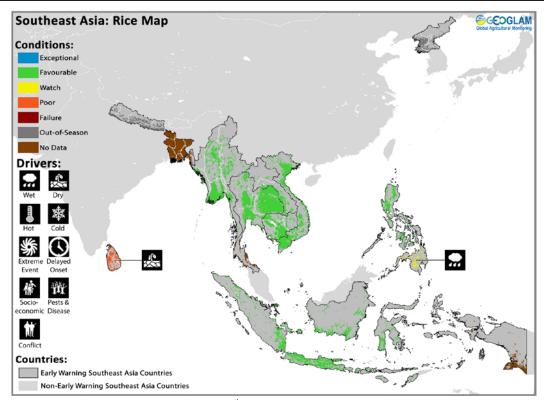
Crop condition map synthesizing information as of March 28th. Crop conditions over the main growing areas are based on a combination of inputs including remotely sensed data, ground observations, field reports, national, and regional experts. **Crops that are in other than favourable conditions are labeled on the map with their driver.**

Across southern Africa dry conditions persist over Angola, Namibia, Democratic Republic of Congo and Mozambique while flood impacts from tropical storm Enawo impacted crops in Madagascar. Heavy rainfall from Cyclone Dineo, and persistent heavy rains from earlier in the season negatively affected crops in Mozambique and southern Zimbabwe. Armyworm outbreaks in Zambia and South Africa have been controlled however concern remains in southern parts of Zimbabwe. In Angola, conditions are favourable for main season crops however there is concern in the north west, highlands, and coastal areas due to dry conditions. In Namibia, conditions are favourable with good rains received in February and early March in the east however, there is concern in the west over Kunene due to dry conditions earlier in the season affecting crops at key development stages. In Zimbabwe, heavy rains in February and March have led to flooding, waterlogging and leaching across areas of Matabeleland North and South and Masvingo. In **Zambia**, conditions are favourable for most crops with good rains from January through to early March. It has been estimated that twenty percent of the country was affected by armyworm outbreaks but control operations were able to mitigate the severity of the impact. In Malawi, conditions are favourable with good rains received throughout the season. In **Botswana**, conditions are favourable with good rains received since December. In Madagascar, there is concern over all regions and poor conditions in east and central areas due to dry conditions throughout the growing season and



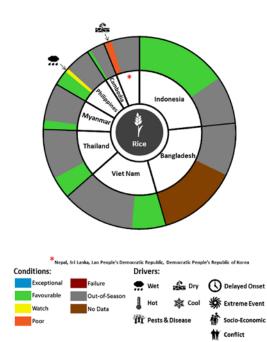
damage due to tropical cyclone Enawo that made landfall in March impacting crops. In **Democratic Republic of Congo**, conditions are favourable despite some concern in the west due to dry and hot conditions. In **Mozambique**, conditions are generally favourable however, there is concern over dry conditions in the central area and damage due to tropical storm Dineo in the south. In **Swaziland** and **Lesotho**, conditions are favourable with good rains received in March supporting crop growth. In **South Africa**, conditions are generally exceptional with above average production projected owing to wet and mild conditions during the growing season, dry conditions in March may affect later planted crops.

Southeast Asia:



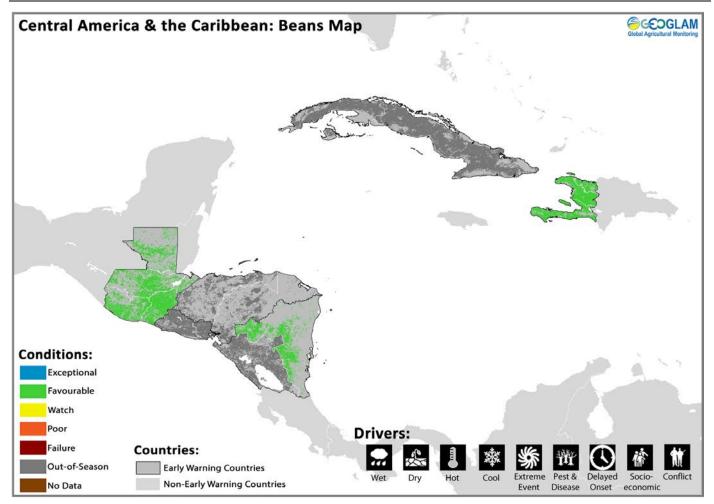
Crop condition map synthesizing information for rice as of March 28th. Crop conditions over the main growing areas are based on a combination of inputs, including remotely sensed data, ground observations, field reports, national, and regional experts. **Conditions that are other than favourable are labeled on the map with their driver.**

Across northern Southeast Asia, conditions for dry season rice are favourable with increases in total planted area due to sufficient irrigation water. Early harvesting of dry season rice is underway in some countries and yield prospects are good. In southern Southeast Asia, harvesting is underway for wet season rice and yield prospects have improved with sufficient irrigation water and sunlight for later planted crops. In Viet Nam, sowing in the north for dry season rice has 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 Laos, dry season rice is in tillering to young panicle forming stage and conditions are favourable however there is some concern in the North due to insufficient irrigation water affecting growth but effect on total production is minimal. The early harvesting of dry season rice will start at the end of this month in some provinces. In Thailand, dry season rice is in young panicle forming and grain filling stages under favourable conditions owing to sufficient rainfall and irrigation water early in the season, planted area is up due to last year. In Cambodia, dry season rice planting is complete and estimated at 20 percent over the national planting plan. Early harvesting which covers 54 percent of total planted area is now under harvest and yield is average. In Myanmar, dry season rice is underway and



conditions are favourable despite some rainfall in March but over Central areas but production was not affected as crops are already in tillering stage. In the **Philippines**, dry season rice has begun harvesting and is under generally favourable conditions, except in the south where heavy rainfall has caused crop damage. 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 **Sri Lanka**, conditions are poor for the main *maha* season now wrapping up due to below average rainfall throughout the season and low irrigation water availability. With the severely reduced irrigation water reserves and reduced seed availabilities, there is already concern for the secondary *yala* season planted in April, particularly if rains do not improve in the coming weeks.

Central America & Caribbean:



Crop condition map synthesizing information as of March 28th. Crop conditions over the main growing areas are based on a combination of inputs including remotely sensed data, ground observations, field reports, national, and regional experts. **Conditions that are other than favourable are labeled on the map with their driver.**

The Apante season is complete in Guatemala and Nicaragua with favourable harvests across the region. In **Guatemala**, harvests were favourable with some localized problems in Izabal due to the excess of rainfall and resulting flooding in the middle of March, but without significant loses. In **Nicaragua**, overall harvests were favourable with minimal impact due to outbreaks of Yellow spot disease affecting localized crops but again without significant losses. In **Haiti**, planting is underway for main season maize and beans and conditions are favourable.

Information on crop conditions in the main production and export countries can be found in the <u>AMIS Market Monitor</u>, published April 6th 2017.

Pie Chart Description: Each slice represents a country's share of total regional production. The proportion within each national slice is colored 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.



Prepared by members of the GEOGLAM Community of Practice Coordinated by the University of Maryland Center for Global Agricultural Research

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

Cover Photo by: Catherine Nakalembe

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Early Warning partners





















