



# Africa in Global Earth Observations

Andiswa Mlisa

Managing Director Earth Observations

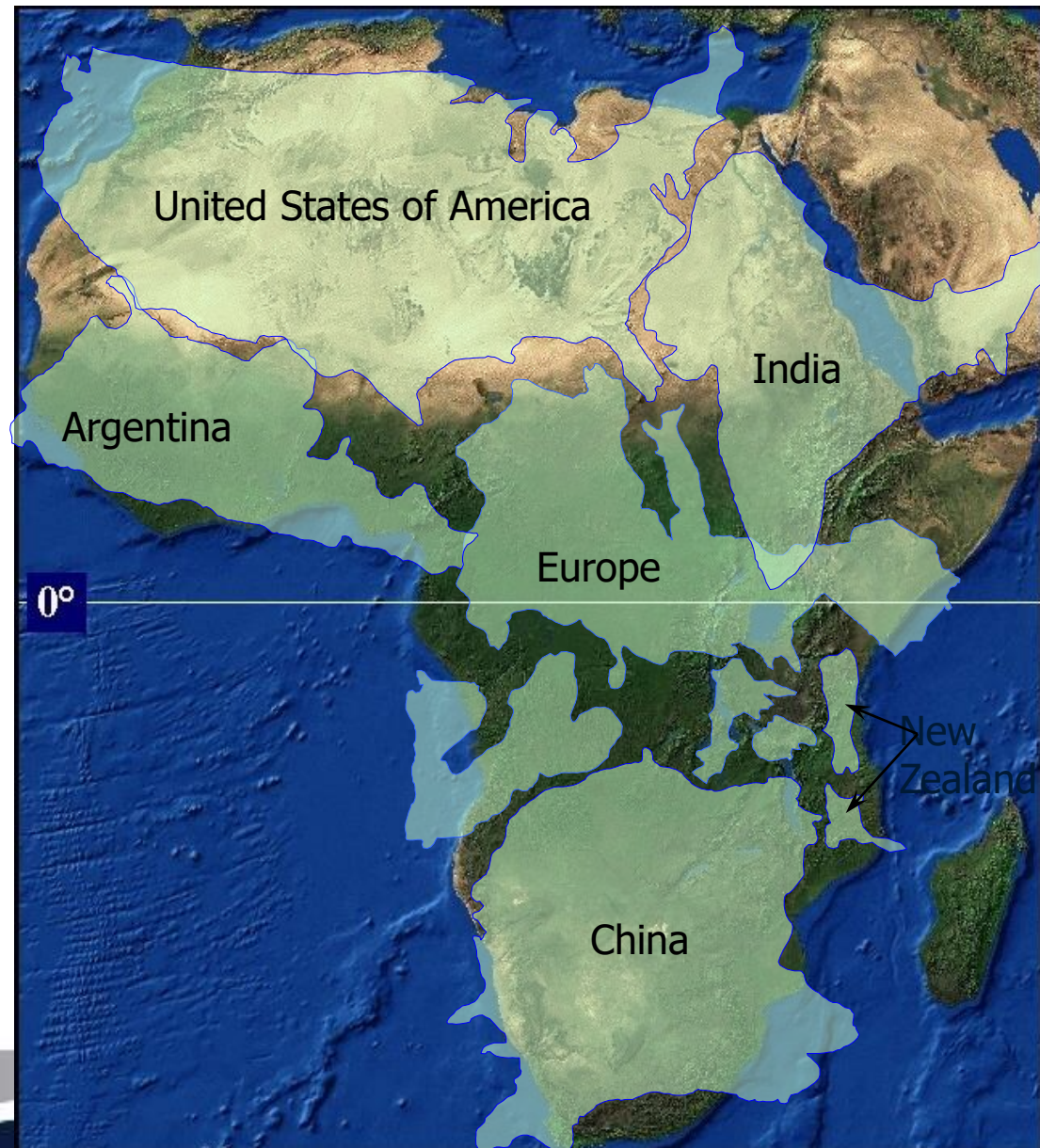
SANSA

AfricaGIS 2017, 20-24 November 2017, Addis Ababa, Ethiopia

## ... Africa

- ❑ world's second largest continent (30.2 m km<sup>2</sup>)
- ❑ second most populous continent (about 15% of the world's population)
- ❑ about 13.5% of population has Internet access
- ❑ 2 out of 3 people have no access to electricity
- ❑ about 40% of drought disasters occur in Africa
- ❑ 30% of world's oil resources

Earth observations are critical to support environment and natural resources management for protection of life, property and sustainable socio-economic development of Africa







**THE GLOBAL GOALS**  
For Sustainable Development

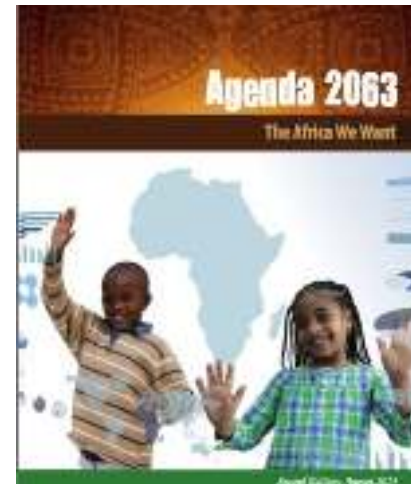


UN World Conference on  
Disaster Risk Reduction  
2015 Sendai Japan

**African  
Resource  
Management  
Constellation**



**Committee of  
African Space  
Institutions**



**UN-GGIM: AFRICA**  
UNITED NATIONS INITIATIVE ON  
GLOBAL GEOSPATIAL  
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**AU Pan African  
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Space Science**

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EU-Africa Summit  
Sommet UE-Afrique  
Bruxelles 2014 Brussels

**AMCOMET**

African Ministerial Conference on Meteorology



**African Union**





# GEOGLAM Crop Monitor for Early Warning



## NO. 19 August 2017

The Crop Monitor for Early Warning brings together field experts, regional and national organizations to deliver crop conditions with confidence and food security. The focus is on developing joint consensus assessments of crop conditions, recognizing food security concerns and risks to strengthening confidence in decision making. The Early Warning Crop Monitor grew out of a successful collaborative risk drafting, the ARIIS Crop Monitor (www.ariis-earlywarning.org), and includes the main working partners.



No. 19 – August 2017 Crop Monitor Early Warning

## GEOGLAM Crop Monitor for Early Warning

Crop Conditions at a glance  
based on best available information as of July 2017



The map shows the current crop conditions in Africa and Western Asia. The map is based on the best available information as of July 2017. The map is a snapshot of the current situation and does not represent a long-term trend.

**WEST AFRICA:** The situation in West Africa is generally stable, with some areas showing signs of stress. The map shows that the majority of the region is in good condition, but there are some areas of concern, particularly in the Sahel.

**EAST AFRICA:** The situation in East Africa is more concerning, with many areas showing signs of stress. The map shows that the majority of the region is in poor condition, with some areas of very poor condition.

**WEST ASIA:** The situation in West Asia is generally stable, with some areas showing signs of stress. The map shows that the majority of the region is in good condition, but there are some areas of concern, particularly in the Levant.

**SOUTH ASIA:** The situation in South Asia is generally stable, with some areas showing signs of stress. The map shows that the majority of the region is in good condition, but there are some areas of concern, particularly in the Indian subcontinent.

**SOUTHEAST ASIA:** The situation in Southeast Asia is generally stable, with some areas showing signs of stress. The map shows that the majority of the region is in good condition, but there are some areas of concern, particularly in the Philippines.

**CHINA:** The situation in China is generally stable, with some areas showing signs of stress. The map shows that the majority of the region is in good condition, but there are some areas of concern, particularly in the north.

**EUROPE:** The situation in Europe is generally stable, with some areas showing signs of stress. The map shows that the majority of the region is in good condition, but there are some areas of concern, particularly in the north.

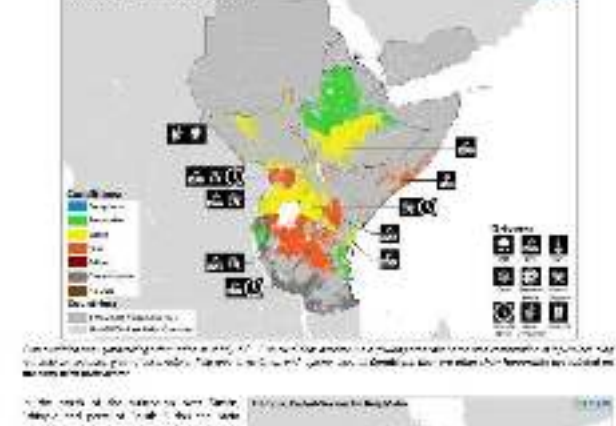
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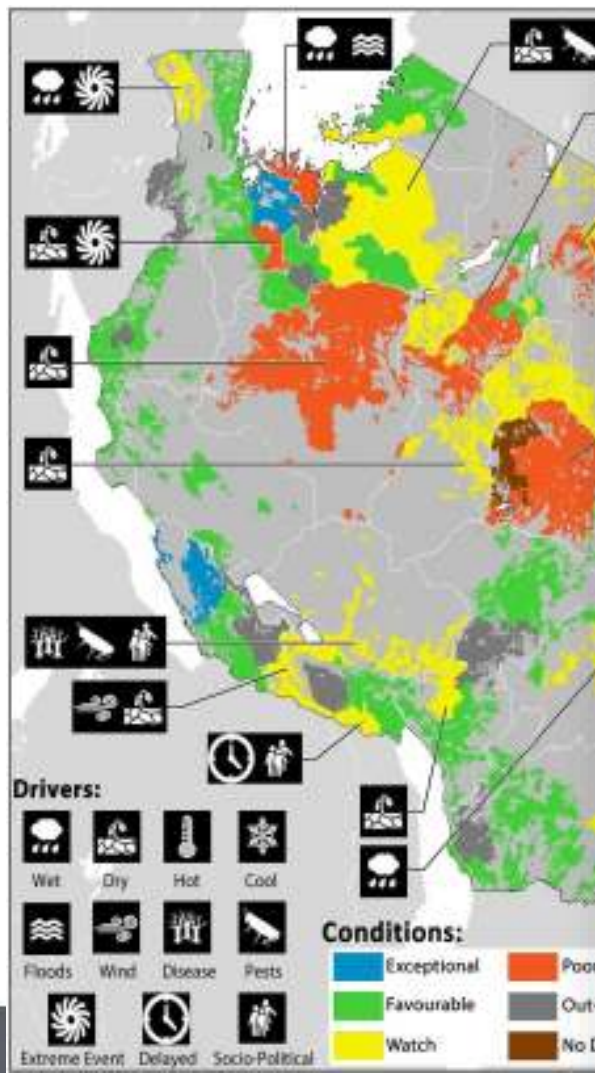
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# Initiation of National Crop Monitors: Tanzania Example



## THE UNITED REPUBLIC OF TANZANIA MINISTRY OF AGRICULTURE LIVESTOCK AND FISHERIES NATIONAL FOOD SECURITY BULLETIN

Volume 02-2017 [www.africa-footsite.org](http://www.africa-footsite.org) 28<sup>th</sup> February 2017



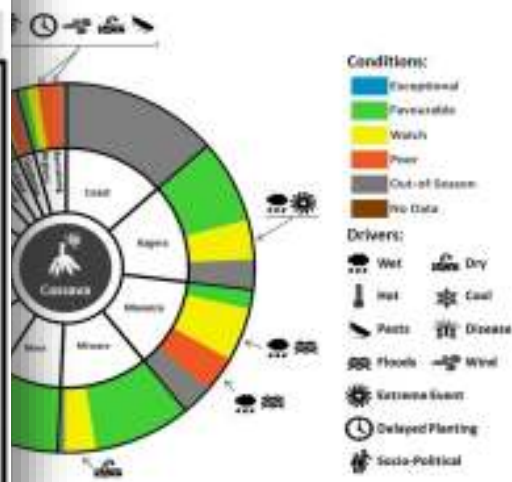
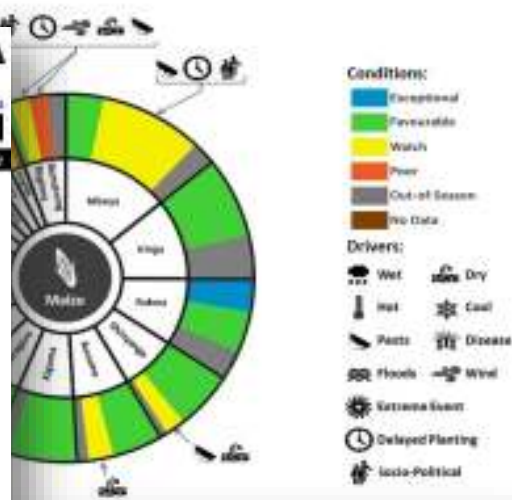
Fig 1 This crop condition map synthesizes information for all crops as of 28<sup>th</sup> February 2017. Crop conditions over the main growing areas are based on a combination of national and regional crop analyst inputs along with remote sensing data and rainfall data provided by the Tanzania Meteorological Agency.

### NATIONAL HIGHLIGHTS

- In most of the agricultural areas farmers are busy with various farm activities including weeding, herbicide application and fertilizer application. Generally, food crops in the agricultural areas are in favourable conditions following good distribution of March rains. The performance of rainfall in most of the agricultural areas is good and stable.
- In the Maasai areas the yield production season has ended. Poor performance of Vuli rains (late onset, inadequate as well as poor distribution) led to a poor harvest of food crops from the Vuli season. The Maasai rains started earlier than the last week of February and the last week of March when farmers are busy planting and weeding.
- Food prices continue to increase. For rice the highest prices were observed in Iringa, Kinyasi, Dodoma, Songea and Tanga, and the lowest prices in Kigoma, Arusha, Doka, Mwanza and Iringa market centers.
- The maize shere average price was observed in Mwanza, Morogoro, Dodoma, Singida, and Tabora market centers, while prices in Songea, Mboya and Doka were the lowest.
- Yield of beans were highest in Shinyanga, Tanga, Morogoro, and lowest in Doka, Mboya, Shinyanga and Kigoma.

### Contents

General crop conditions	1
National highlights	1
Sustainable crop/vegetation conditions	2
Sustainable crop/vegetation conditions	3
FAO/IFAD Performance Report	4
Food prices by region	5
Statistical food availability situation	6
Vulnerability	6
Investment Programs	6
Modality to Computer Change	6
Food System Information	7
Food System Information	8
Public Awareness	8
Terms and Conditions	10





Business / Land & Agriculture

## Dry and brown Southern Africa will need food aid

BY EMKO TERAZONO AND ANDREW ENGLAND, FEBRUARY 15 2016, 05:52

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**THE HERALD**

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programme (WFP) yesterday for the first time ever – not

## Vegetation Status and Crop Production Perspectives



**WFP VAM Report**

### Southern Africa Growing Season 2015-2016: A Season of Regional Drought

Left: N10 in late February 2016, as a percentage of a 12-year average. Orange shades indicate below-average vegetation, green shades indicate above-average vegetation.

Right: Model production perspectives from a multi-agency assessment (2016/16/16).

Current drought, a joint assessment of crop production perspectives carried out by WFP confirms a very pessimistic picture across most of the region: the situation is likely to persist in the rest of the country. Similar outcomes extend to the region as a whole, with crop failures in its southern regions. Only regions such as northern Mozambique, Tanzania, northern Zambia, northern Malawi and parts of Angola have normal production scenarios, as they benefit from El Niño induced rainfall enhancements typical of East Africa.

South Africa's maize production estimates for this season have been revised downwards slightly in February, to about 7.2 million tons, 27 percent below last year's and 38 percent below the 5-year average. The USDA Foreign Agriculture Service is more pessimistic, estimating production at 6.5 million tons. Similar variations may be expected for Zimbabwe, possibly Mozambique and Malawi, with more moderate losses in Zambia.

**FEWS NET**

## SOUTHERN AFRICA Special Report

Illustrating the extent and impact of drought

A severe drought, related to El Niño, is ongoing across the South African growing season. While April/May harvests will provide a partial reprieve, this report presents a series of maps which show water availability, crop and rangeland conditions, food prices, current and expected impacts on

**Monitoring the globe**

## Southern Africa

Friday 25 March 2016 09:40

ANA

**FEWS NET Special Report**

**Already informing agricultural decisions**

**ARC, South Africa**

**Financial Times**

**GEO Announces Launch of Early Warning Crop Monitor: A New Tool to Fight Food Insecurity**

White Paper: White Paper Review of Humanitarian Assistance

The Group on Earth Observations announced the launch of the Early Warning Crop Monitor, a new tool to fight food insecurity. This announcement was made during the GEO-2016 Executive Meeting held in Geneva on 8-9 March.



**The Famine (FEWSNET) insecurity and 2016-2017 drought**

In a new special report, FEWSNET expected for April/May, the Early Warning Crop Monitor (EWCM) on February 28, crop failure in Swaziland, Zimbabwe

**Crop conditions in western Malawi, northern Mozambique**

Developed by the GEO Global Agriculture Monitoring Initiative (GEOGLAM) led by the U.S. Agriculture Mission, the Early Warning Crop Monitor (EWCM) provides comprehensive insights on crop conditions in countries at risk of food insecurity in Central and South America, Africa

**South African corn withers amid worst drought on record**

Impact of extreme weather on food prices set to remain serious

**Joint Statement**

**El Niño Set to Have a Devastating Impact on Southern Africa's Harvests and Food Security**



© Reuters

## Southern Africa warned of severe food crisis

Thursday 24 March 2016 - 4:04pm



**Joint Statement**

**El Niño Set to Have a Devastating Impact on Southern Africa's Harvests and Food Security**

WFP World Food Programme

FEWS NET

European Commission

Food and Agriculture Organization of the United Nations

India, southern Africa and

has warned after two

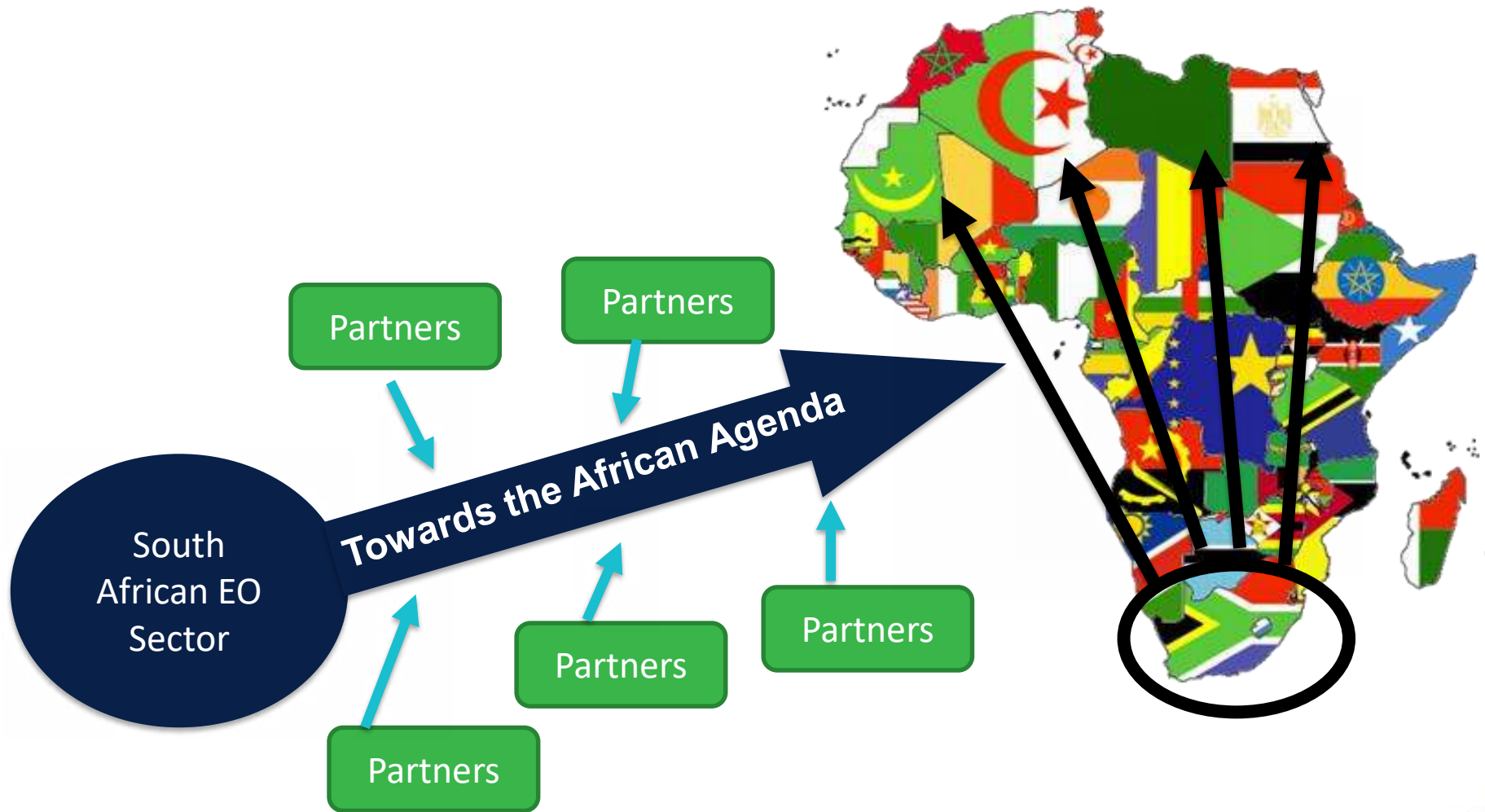
2015-2016

Left: FEWSNET's early warning system was expected to be implemented in April/May, the GEOGLAM Early Warning Crop Monitor (EWCM) had been that as of February 28, crop failure had been confirmed in Lesotho, Swaziland, northern Mozambique, southern Zimbabwe and eastern Botswana.





# SANSA



SAVE THE DATE

# AfriGEOSS SYMPOSIUM 2018

To be held in  
**Libreville, GABON**  
on 25<sup>th</sup> - 27<sup>th</sup> April 2018

hosted by the  
**AGEOS on behalf of the Government of Gabon**

