Status of the GEOGLAM Initiative

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CEOS SIT-31 Side Meeting - 21 April 2016
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Topics – April 2016

• New Website – www.geoglам.org
• Organization Updates
• Advisory Committee – November 2015; Next: June 2016
  – Recommendations
  – Related actions
• CM for AMIS; EWCM Status Updates
• CEOS Ad Hoc WG:
  – Data Request Submission Tool
  – JECAM Update & Data Requests (Ian Jarvis)
  – Asia-RiCE Updates & Data Requests (Kei Ohyoshi)
  – RAPP Update (Alex Held/Flora Kerblatt)
• Linkages with CEOS WG CapD
GEOGLAM Organization

• GEOGLAM Sec:
  – Program Director = Michel Deshayes
  – Program Scientists = Alyssa Whitcraft & Inbal Reshef

• Implementation Team:
  – Component Leads
  – Major Project Leads

• Advisory Committee:
  – High-level officials from end-user organizations

• Recent change:
  – New C2 co-leads:
    • Dave Johnson (USDA-NASS)
    • Carlos di Bella (INTA)
Some AC Recommendations...

• [C1] GEOGLAM to communicate more forcefully the successful contribution to AMIS in the countries presently covered.
  – Add new countries with rice, wheat, soybean, & corn production;

• [C4] The coordination of the remote sensing activities is of the highest priority. The coordination of the remote sensing data requirements with CEOS & related activities should be further supported.

• [C6] Better capacity development strategy + integration into other activities
Some AC Recommendations...

- The current mandate should be refreshed to cover both Trade and also Food Security.
- There is need for a more strategic communication and for increased engagement with other organizations; and
- The participation of more countries should be promoted, and the South-South cooperation should be enhanced.

Next AC Meeting:
24 June 2016
GEOGLAM Crop Monitor Progress

- Political mandate with well defined, active user community
- Effective mechanism for coordination, and communication of science based, international assessments
- Two operational global systems and 2 national systems in development
  - Crop Monitor for AMIS- focus on main production export countries (>35 participating partners)
  - Early Warning Crop Monitor- focus on countries at risk of food insecurity
  - Crop Monitor Tanzania- in development in partnership with Min of Ag
- Continued strong, high level support for GEOGLAM Crop Monitor Initiative
  - Including at recent AMIS Rapid Response Forum, March 2016, DC
    - Interest to expand collaboration with AMIS
    - Interest from Ukraine for collaboration
    - UK uses the GEOGLAM products for ministry briefings
- GEOGLAM-AMIS joint session to be held at AMIS meeting- 23rd June in the afternoon
Crop Monitor for AMIS

Published monthly within the Market Monitor
(26 issues published)
The Early Warning Crop Monitor

- Grew out of successful AMIS Crop Monitor
- Context: need for more timely, reliable, vetted information on crop conditions within countries at risk
- Objective: Exchange information and reduce uncertainty to strengthen agricultural decision making
  - Focus on discussion and consensus building
- Current partners: USAID FEWS NET, WFP, JRC, ARC, ASIA RiCE, UMD
  - Expanding to include regional networks, and national sources
  - Discussions with SADC, FAO GIEWS, SERVIR Hubs, MESA, Tanzania MoA
- Coordinated by UMD/GEOGLAM Secretariat (I. Becker-Reshef)
- First bulletin published in Feb 2016
- Already informing agricultural decisions
  - included in news, press releases and official reports including joint press release by FEWS NET, JRC, WFP and FAO on current crisis in southern Africa
The First EWCM Bulletin
Released February 2016
3 published to date

GEOGLAM Early Warning Crop Monitor
Crop Conditions at a glance as of January 28th

SOUTHERN AFRICA: A severe drought driven by ENSO is impacting croplands across southern Africa leading to significant reductions in planted area and to poor conditions and failed crops across broad areas.

WEST AFRICA: Current conditions are mostly favourable, however poor rainfall distribution and quantity affected parts of Kenya, Somalia and Tanzania. The recently concluded Meher harvest in Ethiopia was very poor due to the severe drought conditions that prevailed during the main June-September rainy season of 2015.

The GEOLAGM Early Warning Crop Monitor (EWCM): Brings together the 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 EWCM grew out of a successful collaborative relationship, the AMEM Crop Monitor, which monitors the main producing countries. This is the first bulletin for GEOLAGM assessments will include countries shown in blue on the opposite panel.

Facts for all EWCM crops. Crop conditions over the main growing areas are based on a combination of satellite crop area index data alongside earth observation data. Crops that are in other than favourable conditions are displayed on the map with their crop symbol.

The region is out of season and the end of season is largely favourable. In West Africa and part of Chad, Cameroon, CAR, the start and end of season is in May and June. In the Sahel, the growing period is much shorter and the growing season is from June to August where it starts in March and ends in April and May. In the Sahel, the growing period is from June to August where it starts in March and ends in April and May. In the Sahel, the growing season is much shorter and the growing season is from June to August where it starts in March and ends in April and May. In the Sahel, the growing season is much shorter and the growing season is from June to August where it starts in March and ends in April and May.
GEO Announces Launch of Early Warning Crop Monitor: A New Tool to Fight Food Insecurity

GEO’s US Co-Chair, Dr. Kathryn Sullivan, Administrator of the US National Oceanic and Atmospheric Administration (NOAA), stated, “Concerns over food and water security are rising globally. Ensuring that agricultural industries around the world have access to the best science, data, tools and resources is essential as we work to increase food security and mitigate the effects of droughts and floods. The GEOGLAM Early Warning Crop Monitor provides decision-makers with essential information, gathered from satellites, buoys and other observational tools, to be ready, responsive and resilient against extreme weather and water events.”
Southern Africa to face severe food crisis

Friday 25 March 2016 09:40

ANA

For more info: www.geoglam-cropmonitor.org
Contact: Inbal Becker-Reshef, ireshef@geoglam.org
CEOS Ad Hoc WG for GEOGLAM
GEOGLAM Data Requirements & Requests

- JECAM
- Asia-RiCE
- RAPP
- Additional Requests (via DRST)
Evolution of GEOGLAM Data Requirements

• Cookbook and Grocery List analogy
  – One step further: Remote Sensing analysts are the cooks; End-users are the eaters/consumers 😊

• We are now talking about collecting the “grocery list” from different “cooks”
  – Data Request Submission Tool (DRST)

• Cookbook will also evolve – with R&D progress
  – Training an important component of transitioning R&D into operational context
  – How to incorporate growing activities (e.g. RAPP) requirements, for the CEOS audience?
GEOGLAM’s Data Requirements Submission Tool (1)

What? A mechanism for GEOGLAM community members to communicate their space-based EO data needs
- Forward looking (new) data needs
- Backward looking (archival) data needs
- …so that GEOGLAM can work with CEOS and space agencies to meet GEOGLAM’s needs

Why?
- The first step in a pipeline to request and obtain space-based EO data for agricultural monitoring applications (e.g. crop conditions, crop yield forecasting & estimation, cropland & crop type mask, crop calendars) – coordinated data for GEOGLAM.
  - A request ≠ a guarantee of fulfillment

Who?
- Requests from: Remote sensing analysts who participate in GEOGLAM who need support in discovering, requesting, and/or obtaining space-based EO data
- Requests to: CEOS, the CEOS Ad Hoc Working Group for GEOGLAM, and the space agencies

Which Data?
- New Acquisitions: any mission currently operational from a civil space agency
- Archival Data: a few missions currently available, working to expand

Submit requests here: https://goo.gl/dmV87v
GEOGLAM’s Data Requirements Submission Tool (2)

How?

- **Step 1: Submit requests here:** [https://goo.gl/dmV87v](https://goo.gl/dmV87v)
  - Which data (spectral/spatial resolution), when, where, how frequently?
  - For what purpose?
  - Do you need help with downloading, storing, or pre-processing data?

- **Step 2: GEOGLAM Secretariat & CEOS Ad Hoc WG evaluate submissions**
  - For archival data requests – we search the metadata archives to see what exists, then submit requests to agencies.
  - For new acquisition requests – we evaluate capabilities to meet requirements, and request acquisition plan modifications to accommodate them.

When to submit requests?

- Starting now, only when you are ready and willing to use the data.
- **Data readiness definitions:**
  - **Level 1:** You have the desire and capacity to analyze the satellite data, but lack the capacity to download, store, and/or preprocess data for use. Therefore, a data services solution is desired to manage any data.
  - **Level 2:** You have the desire and capacity to download, store, preprocess, and analyze satellite data, but require CEOS intervention to do so (including: mode selection, coverage expansion, license assistance, etc.).
  - **Level 3:** You have the desire and capacity to download, store, preprocess, and analyze satellite data, but you require NO intervention on the part of CEOS (no new acquisition requests or aid in securing archival datasets).
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Future of Ad Hoc WG?

- Discussion around LSI-VC & longer-term transitioning
Linkages with CEOS WGCapD

- Discussions initiated with Jane Olwoch and Eric Wood – co-leads
  - Desire to support the CAHWGG

- There are two points of connection possible:
  - GEOGLAM Lead/PoC on CEOS Ad Hoc WG (Alyssa)
  - GEOGLAM Capacity Development Component 6
    - Lack of coordination in this component is what led to the initial contact with CEOS WGCapD (desire to move us forward in some way)

- Both communities need to formulate a comprehensive, higher level plan for coordinating activities around CD
  - It makes sense to collaborate on the ag piece

- For now, agreed:
  - Alyssa to call into WGCapD telecons
  - Look for synergistic opportunities
Discussion Questions

- What are strategic issues and top priorities for CEOS and GEOGLAM in the next 12-18 months?
  - Short & Long Term Plans for GEOGLAM (as impacting CEOS)
- What can CEOS do for GEOGLAM…
  - …that it is not already doing?
  - …that it is already doing (and should keep up the good work)?
- Key communication points
  - Disambiguation of the term “user”
  - Mechanisms for requesting and fulfilling data requests
- How to move forward on “ARD” definition for Agriculture?
Plans for SIT TW & 30th Plenary

- SIT TW
- Plenary